Town of Clayton
Town Council Regular Meeting Agenda
Monday, August 18, 2025 at 6:00 PM
Council Chambers, Town Hall
111 E. Second Street

THE PUBLIC MAY VIEW THE LIVE COUNCIL MEETING ON THE TOWN'S YOUTUBE CHANNEL:
https://www.youtube.com/TownofClaytonNC

1. CALL TO ORDER

a. Call to Order

b. Pledge of Allegiance

c. Invocation

2. ADJUSTMENT OF THE AGENDA

a. **POTENTIAL ACTION:** Adopt or Adjust the Agenda

3. CONSENT AGENDA

a. Minutes
- July 21, 2025 - Work Session
- July 21, 2025 - Regular Session
- August 4, 2025 - Work Session
- August 4, 2025 - Closed Session

Presenter: Michelle Snyder, Acting Town Clerk
July 21, 2025 - Work Session
July 21, 2025 - Regular Session
August 4, 2025 - Work Session

b. Certification of Sufficiency by the Clerk: 2025-40-ANX Clayton Village Center
Presenter: Heidi Holland, Town Clerk
Certificate of Sufficiency

c. Resolution to Set Public Hearing 2025-40-ANX Clayton Village Center Annexation
Presenter: Haley Downey, AICP, CZO, Assistant Planning Director
Resolution #2025-74

d. Resolution To Accept Streets into The Town of Clayton Street System for Maintenance – One Year Warranty - Carolina Overlook Phase 1 F, G, K
Presenter: Daniel Buckman, Engineering Technician
Resolution #2025-46

e. Resolution To Accept Streets into The Town of Clayton Street System for Maintenance – One-Year Warranty - Carolina Overlook Phases 1A, 1B, 1C, 1D, 1E, 1J & 1I
Presenter: Daniel Buckman, Engineering Technician
Resolution #2025-47

f. Recommendation for Advisory Board Member Removal
Presenter: Heidi Holland, Town Clerk
Advisory Board Member Removal

g. Amendment to the Code of Ordinances, Chapter 95 Fire Prevention Update
Presenter: Michael Tatum, Fire Marshal
Ordinance #2025-08-06

POTENTIAL ACTION: Adoption of Consent Agenda as Presented

4. ADMINISTRATIVE ITEMS

a. Clayton4U
- Back to School Safety

Presenter: Nathanael Shelton, Communication Director

5. INTRODUCTIONS AND SPECIAL PRESENTATIONS

a. NC Eastern District Inspector of the Year
Presenter: Rich Cappola, Town Manager

b. Building and Code Staff Appreciation Day Proclamation
Presenter: Mayor McLeod to Present to Inspections Department
Building and Code Staff Appreciation Day Proclamation

6. PUBLIC HEARINGS

a. 2025-10-CZM Dominium Clayton Mixed Use Conditional Rezoning
Presenter: Conrad Olmedo, Planning Director
2025-10-CZM Dominium Clayton Mixed Use Conditional Rezoning

POTENTIAL ACTION: Motion To Continue. Public hearing to be opened and continued to the September 2, 2025 meeting. No discussion or action will be taken at this meeting.

b. 2025-23-CZM Heavner Property Conditional Rezoning
Presenter: Haley Downey, AICP, CZO, Assistant Planning Director
2025-23-CZM Heavner Property Conditional Rezoning

POTENTIAL ACTION: Adoption of Ordinance #2025-08-02 and Consistency Statement

c. 2025-56-Street Closure, Shotwell Apartments (Mechanical Drive)
Presenter: Audrey Duchesne, Senior Planner
2025-56-Street Closure, Shotwell Apartments (Mechanical Drive)

POTENTIAL ACTION: Adoption of Ordinance #2025-08-08

d. Sale of Multifamily Housing Revenue Bonds Series 2025 for Shotwell Apartments
Presenter: Robert McKie Jr., Finance Director
Sale of Multifamily Housing Revenue Bonds Series 2025 for Shotwell Apartments

POTENTIAL ACTION: Adoption of Resolutions #2025-79 and #2025-80

e. 2024-77-ANX: Coulan Company Annexation Public Hearing
Presenter: Robert Tate, AICP, Senior Planner
2024-77-ANX: Coulan Company Annexation Public Hearing

POTENTIAL ACTION: Adoption of Ordinance #2025-08-01

f. 2024-140-CZM FluoroFusion Conditional Rezoning
Presenter: Audrey Duchesne, Senior Planner
2024-140-CZM FluoroFusion Conditional Rezoning

POTENTIAL ACTION: Adoption of Ordinance #2025-08-04 and Consistency Statement

7. QUASI-JUDICIAL HEARING

8. OLD BUSINESS

a. Capital Project Budget Ordinances
Presenter: Robert McKie, Jr., Finance Director
Capital Project Budget Ordinances

POTENTIAL ACTION: Adoption of Ordinances #2025-08-07 and #2025-08-08

9. NEW BUSINESS

a. Amendment to the Code of Ordinances, Chapter 96 Solid Waste Management, Sections 96.02 and 96.04
Presenter: Jon Weckesser, Senior Zoning & Code Enforcement Officer
Amendment to the Code of Ordinances, Chapter 96 Solid Waste Management, Sections 96.02 and 96.04

POTENTIAL ACTION: Adoption of Ordinances #2025-08-09 and #2025-08-10

b. Resolution #2025-71 To Amend Resolution #2022-10 Granting Wastewater Treatment Capacity 2021-90-CZM: Ramblewood Village
Presenter: Michael Worner, Senior Engineering Tech.
Granting Wastewater Treatment Capacity 2021-90-CZM: Ramblewood Village

POTENTIAL ACTION: Adoption of Resolution #2025-71

10. STAFF REPORTS

a. Town Manager

b. Town Attorney

c. Town Clerk

d. Other Staff

11. OTHER BUSINESS

a. Informal Discussion & Public Comment

b. Council Comments

12. CLOSED SESSION

13. ADJOURNMENT

a. Adjourn

POTENTIAL ACTION: Motion To Adjourn

INFORMATION FOR THE PUBLIC

3. CONSENT AGENDA

Items on the consent agenda are considered routine in nature or have been thoroughly discussed at previous meetings. Any member of the Council may request to have an item removed from the consent agenda for further discussion.

7. QUASI-JUDICIAL HEARING

A quasi-judicial hearing resembles a court trial where testimony is presented. Citizens may give testimony in a quasi-judicial hearing after they have taken an oath. Town Council acts like a court of law and receives only sworn testimony and other credible evidence. In addition, the Town Council must make findings of fact based upon the evidence presented. The Town Council refrains from "ex parte communication" about these cases, as the Town Council must make a decision based solely on the evidence presented at the hearing itself. Staff is available to assist with inquiries from citizens.

11. OTHER BUSINESS – INFORMAL DISCUSSION & PUBLIC COMMENT

RULES FOR PERSONS ADDRESSING TOWN COUNCIL

- During public hearings and public comment periods, each speaker will identify him/herself by giving his or her name and place of residence.
- Each speaker will be limited to speaking one time on any topic. When you are finished speaking, please step away from the podium and be seated.
- Each speaker will be limited to three (3) minutes and each group's representative will be limited to a maximum of five (5) total minutes. Each group is encouraged to designate a single spokesperson for their group.

Town of Clayton
Town Council Work Session Minutes
Monday, July 21, 2025 at 3:00 PM
Rotary Room, Town Hall
111 E. Second Street

Council Present:
Mayor Jody McLeod
Mayor Pro Tem Michael Sims
Council Member Andria Archer
Council Member Porter Casey
Council Member Ruth Anderson
Council Member Gretchen Williams

Council Absent:
None

Staff Present:
Rich Cappola, Town Manager
Jim Cauley, Town Attorney
Heidi Holland, Town Clerk
Dolores Gill, Deputy Town Manage
Lee Barbee, Deputy Town Manager
Courtney Tanner, Deputy Town Manager
Robert McKie, Jr., Finance Director
David Ranes, Fire Chief
Nathanael Shelton, Communication Director
Conrad Olmedo, Planning Director
Tim Robbins, Public Works Director
Fred Evans, Custodial Crew Leader
Steven Langston, Clayton Center Director
Amando Lebo, Event Specialist
Heather Probst, Executive Assistant
Toni Melton, Administrative Support Specialist
Chris Gallant, Capital Program Manager
Todd Melton, Budget Manager
Jessica Watkins, Intern

1 CALL TO ORDER

a) Mayor McLeod called the meeting to order at 3:05 p.m.

2 ADJUSTMENT OF THE AGENDA

a) Mr. Cappola adjusted the agenda to include a closed session to discuss a legal matter in accordance with NC GS 143-318.11(a)(3).

Adopt or Adjust the Agenda

RESULT:	**CARRIED 5-0**
MOVER:	Ruth Anderson
SECONDER:	Gretchen Williams
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

3 STAFF INTRODUCTIONS AND RECOGNITIONS

a) 3:00 - 3:10 p.m.

- Fred Evans, Custodial Crew Leader
- Joshua McIntosh, Facility Technician

Presenter: Tim Robbins, Public Works Director

- Amanda Lebo, Event Specialist

Presenter: Steven Langston, Cultural Arts Director

- Toni Melton, Administrative Support Specialist

Presenter: Heather Probst, Executive Assistant

Mr. Robbins stated Mr. Evans had moved up to Custodial Crew Leader; Joshua McIntosh wasn't able to make it this afternoon. Mr. Langston introduced Ms. Lebo. He stated they had 111 applications for Ms. Lebo's position as the new full-time event specialist. Ms. Probst introduced Ms. Melton who joins staff over at the Operations Center.

4 ITEMS FOR DISCUSSION

a) 3:10 - 3:20 p.m.
Parking Signage
Presenter: Nathanael Shelton, Communication Director

Mr. Shelton shared the existing and updated public parking signage. The goal is to replace and streamline the existing public parking signage for all partnership parking lots. The Town plans to install some directional signs to point citizens to parking lots that are not as obvious such as Lombard Street towards Town Hall, Horne/Barbour Lot, and Main Street to the Compare Foods Lot. More decorative parking signage would be added to the Town Hall and Horne Square Parking lots; these would match the existing signage at the Town Square lot. Additionally, signage would be added to the lot between Town Hall and Horne Church.

There was discussion on overnight parking. Mr. Cappola stated he would have to check the ordinances to see if it states anything regarding overnight parking. Council Member Williams asked if someone what happens if someone parks in the lot outside of the stated hours, it was stated that business owners would handle that.

Next steps are for staff to share with lot owners.

It was consensus of Council to move forward with this process.

b) 3:20 - 3:50 p.m.
Robertson Mule Stable Facility Condition Assessment
Presenter: Chris Gallant, Capital Program Manager

Mr. Cappola stated after purchasing the Robertson Mule Building in December 2024, the building needed to be assessed; this presentation is a debrief of the findings. Mr. Gallant stated staff engaged with consultants ESC Southeast on the property condition and with Gilbert Surveying for a full site survey. In April 2025, ECS Southeast provided deliverable reports; the site survey is still pending. Jacobs Engineering was engaged to begin the process of an Adaptive Reuse Study which would involve community engagement, department and council interviews to determine the best recommendation for this space.

Mr. Gallant shared the preliminary assessment. He spoke about hazardous materials testing. A total of 27 samples were taken on site. Interior and exterior materials were tested to determine if products contained asbestos, lead based paint, mold and moisture and hydrocarbons. The materials testing involved flooring, glazing, caulking, roofing materials, drywall/joint compound, and soils. Two of the thirteen products tested were positive for asbestos; the products containing this were the VCT Tile (office area) and the chimney mastic (roof).

Six of the nine products tested were positive for lead. These products included white roof dormer paint, white window sills, white window frames, white carriage door frame, white front door, and white interior columns. Some water damage, staining, and moisture intrusion was observed and interior mold spores were comparable to exterior samples. Soil test results showed diesel fuel was found at levels 8 times higher than acceptable levels for indoor spaces.

Recommendations included a plan to remove, encapsulate or enclose materials containing asbestos before disturbance of materials and to create a workplan and perform removal of lead-based paint. It is recommended to perform a Phase II environmental assessment to determine further actions on any contaminated soil.

The building envelope assessment included gathered data regarding conditions of existing exterior wall construction, roof assemblies and fenestration assemblies; performed roof core sampling; moisture meter readings. Shared were those findings which included multiple locations of mortar repairs, patched or repair wood decking, broken wood decking, and apparent moisture damage at wood decking. Regarding the exterior, the finding included multiple locations of mortar deterioration, damaged wood window sill, multiple locations of loose and damaged brick, unsealed penetrations, ponding on the roof, and wrinkles in the roof membrane.

Recommendations for immediate repairs included repoint exterior brick walls, repair damaged masonry, seal all penetrations in exterior walls, and replace/repair damaged wood windows.

The structural assessment findings included rotted wood trim, deteriorated concrete and mortar, previous repairs to stair step cracking on the exterior and interior, and microbial growth on the brick and soil erosion. The structure at the roof was in fair to poor condition with significantly deteriorated paint and decayed wood. Ponded water was observed at the northwest corner.

Structural exterior recommendations included rotted wood windows sills and door should be replaced, concrete threshold at the southeast elevation be removed or repaired, brick and mortar should be repointed as necessary, and stairstep crack repairs at the northwest corner should be monitored.

Structural interior recommendations included wood framing should be treated with weather sealant, posts with decay/rot be repaired or replaced, rotated/warped posts be secured to the beam, roof decking be repaired, stairstep crack repairs be monitored, damaged bricked replaced in-kind, brick and mortar be repointed as necessary, and concrete slab be repaired.

A complete overall review of the property was performed to determine an opinion of the Historic Preservation status. Historical and topographic maps were reviewed, and a field visit was performed to observe any evidence of potentially historical or culturally significant resources. The study showed the property is classified in the Clayton Historic District as Surveyed Only and is identified as part of the Clayton Historic District in the National Register of Historic Places. It was recommended for the Town to issue a letter to NC State Historic Preservation Office to receive an understanding of the historic status. Consultants are working on a draft letter to issue to NC SHPO.

Next steps are to finalize the NC SHOP process with a concurrence letter, receive an engineer's construction cost estimate, engage with a structural engineering consultant to identify specific structural repairs necessary, and determine a phased approach to perform repairs.

There was discussion on possibly grouping repairs with other projects to receive cost savings.

c) 3:50 - 4:00 p.m.
Robertson Mule Stable Adaptive Reuse Study
Presenters: Chappel Jordan, Jacobs Engineering and Dolores Gill, Deputy Town Manager

Ms. Gill introduced Chappel Jordan, a consultant with Jacobs Engineering, who will be meeting with Council next week to gather input on the property. Mr.

Jordan spoke about the excitement he has about this project. He stated he is in agreement with the presentation Mr. Gallant shared. He explained that once potential uses for the property are better understood, a comprehensive analysis, including pros, cons and cost estimates, would be developed to support future decision making.

5 BREAK

a) 4:00 - 4:10 p.m.

6 ITEMS FOR DISCUSSION

a) 4:10 - 4:30 p.m.
UDOTA Shipping Container Update
Presenter: Conrad Olmedo, Planning Director

Mr. Olmedo stated there are about 21 properties these containers have been identified on. Shared were examples of these properties. The UDO treats these as temporary and are typically not permitted by NC Building Code. While they are considered temporary, they are being left on properties for extended periods of time.

Shared were different capacities these containers are being used as. Discussed were concerns of possible safety hazards with accumulation of materials or debris, unpermitted footings under the containers, and stacking of the containers. These containers have also been found in parking lots taking up parking spaces.

Mr. Olmedo explained that this discussion was prompted by the observation of a structure being constructed on top of a container at 101 Best Wood Drive, which has been in place approximately a year and a half. This property owner spoke at the May 27, 2025 Planning Board meeting where he shared his concerns and reason for the container.

He stated the UDOTA 1-25 amendment, being shared at this evening's regular session meeting, proposes an increase of the amount of days the container can be on the property from 90 to 120 days, residential – 8' high, 8' wide, 20' long and no more than two on a lot, and commercial – 10' high, 8' wide, 40' long and no more than four on a lot. He discussed a proposal in the UDOTA 1-25 amendment to include a membrane structure that would house these containers. He stated in the NC Building Code, storage containers are in compliance when part of a membrane structure.

Shared were three considerations for Council. Consideration 1: continue to treat as temporary uses: max duration and standards apply; Consideration 2: continue to treat as temporary uses: max duration and standards apply and additionally seek to permit as secondary uses: permitted per NCBC and

standards apply; and Consideration 3: remove regulation to align with no enforcement action and additionally, no permits or standards exist and allow property owner to use and place on property.
Ms. Tanner suggested having them considered as Outdoor Storage in Industrial buildings.

It was consensus of Council to not allow these as permanent in Residential.

b) 4:30 - 4:45 p.m.
Budget Book Update
Presenters: Todd Melton, Budget Manager and Jessica Watkins, Intern

Mr. Melton and Ms. Watkins shared and discussed in detail the FY25-26 budget book, which is an interactive link to the website with interactive charts. This year it has been created in ClearGov, with a target completion date of July 31, 2025.

Ms. Watkins noted that a navigation guide is available to assist users in exploring the document. She highlighted the various sections included in the book, such as the organizational chart, which has been added this year to enhance transparency. The book also incorporates the Town's financial policies, demographic data compiled from various sources, and the Strategic Plan. The Strategic Plan section outlines the seven key focus areas and related strategies. Additionally, the document details the budget development process and timeline.

7 CLOSED SESSION

a) To Discuss a Legal Matter in Accordance with NCGS 143-318.11(a)(3).

Motion to Go Into Closed Session

RESULT:	**CARRIED 5-0**
MOVER:	Michael Sims
SECONDER:	Gretchen Williams
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

Motion To Return To Open Session

RESULT:	**CARRIED 5-0**
MOVER:	Michael Sims
SECONDER:	Andria Archer
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

8 ADJOURNMENT

a) With nothing further, the meeting was adjourned at 5:36 p.m.

Motion To Adjourn

RESULT:	**CARRIED 5-0**
MOVER:	Andria Archer
SECONDER:	Porter Casey
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

Duly adopted by the Town Council this 18th day of August 2025 while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Assistant
Acting Town Clerk

Town of Clayton
Town Council Regular Meeting Minutes
Monday, July 21, 2025 at 6:00 PM
Council Chambers, Town Hall
111 E. Second Street

Council Present:
Mayor Jody McLeod
Mayor Pro Tem Michael Sims
Council Member Andria Archer
Council Member Porter Casey
Council Member Ruth Anderson
Council Member Gretchen Williams

Council Absent:
None

Staff Present:
Rich Cappola, Town Manager
Jim Cauley, Town Attorney
Heidi Holland, Town Clerk
Lee Barbee, Deputy Town Manager
Courtney Tanner, Deputy Town Manager
Greg Tart, Police Chief
David Ranes, Fire Chief
Robert McKie, Jr., Finance Director
Nathanael Shelton, Communication Director
Conrad Olmedo, Planning Director
Joshua Baird, Water Resources Director
Audrey Duchesne, Senior Planner
Joe Stallings, Economic Development Director
Stacey Turner, Deputy Fire Chief
Sam Johnson-Phillips, Deputy Town Clerk

1. CALL TO ORDER

a. Call to Order

Mayor McLeod called the meeting to order at 6:03 p.m.

b. Pledge of Allegiance

Mayor McLeod led the Pledge of Allegiance.

c. Invocation

Mayor McLeod provided the Invocation.

2. ADJUSTMENT OF THE AGENDA

a. Mr. Cappola requested that Closed Session item 12a, originally listed as Legal Matter in Accordance with NC GS 143-318.11 (a)(3) be amended to Personnel Matter in accordance with NC GS 143-318.11 (a)(6).

Adopt or Adjust the Agenda

RESULT:	**CARRIED 5-0**
MOVER:	Porter Casey
SECONDER:	Andria Archer
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

3. CONSENT AGENDA

a. Minutes
- June 2, 2025 - Work Session
- June 2, 2025 - Regular Session
- June 16, 2025 - Regular Session
- June 16, 2025 - Closed Session

Presenter: Sam Johnson-Phillips, Deputy Town Clerk

b. Resolution To Accept Public Utilities into The Town of Clayton Public Utility System for Maintenance – Highgate Ph. 5
Presenter: Josh Cotten, Engineering Technician

c. Resolution To Accept Public Utilities into The Town of Clayton Public Utility System for Maintenance – Grifols Phase II Wastewater Effluent Line
Presenter: Josh Cotten, Engineering Technician

d. Resolution To Accept Public Utilities into The Town of Clayton Public Utility System for Maintenance – Highgate Phase 4 Waterline Extension Resolution
Presenter: Daniel Buckman, Engineering Technician

e. Resolution Directing the Clerk to Investigate 2024-77-ANX: Coulan Company Annexation
Presenter: Robert Tate, Senior Planner

f. Resolution To Accept Public Utilities into The Town of Clayton Public Utility System for Maintenance – Carolina Overlook Phase 2E
Presenter: Michael Worner, Engineering Technician

g. Lighting Requests for Awareness Campaigns Policy ADMIN 2025-01
Presenter: Heidi Holland, Town Clerk

h. Town Standard File Name Policy Amendment ADMIN 2023-02A
Presenter: Heidi Holland, Town Clerk

i. Resolution Granting Wastewater Treatment Capacity 2025-07-SP-CD: Mads Ovlisen Art Center
Presenter: Michael Worner, Engineering Technician

j. Piggybacking on Town of Apex's Odor Control Chemical Bid
Presenter: Shaun Mizell, Procurement Contracts and MWBE Manager

k. Resolution Granting Wastewater Treatment Capacity 2025-13-SP-CD: Clayton

Commerce Center
Presenter: Michael Worner, Engineering Technician

l. Final Resolution to Award - Arbors Lift Station Diversion Project
Presenter: Shannon Poole, Engineering

m. Johnston County Emergency Services Agreements FY26
Presenter: David Ranes, Fire Chief

n. Knightdale Fire Department Fire Protection Automatic Aid Agreement
Presenter: David Ranes, Fire Chief

o. Obsolescence Letter from NC State Parks for Legend Park
Presenter: Scott Barnard, Parks and Rec. Director

Adoption of Consent Agenda as Presented

RESULT:	**CARRIED 5-0**
MOVER:	Michael Sims
SECONDER:	Porter Casey
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

4. ADMINISTRATIVE ITEMS

a. Clayton 4U
- Clayton Utility Tracker

Presenter: Nathanael Shelton, Communication Director

Mr. Shelton shared the latest episode discussing Clayton's Utility Tracker.

5. INTRODUCTIONS AND SPECIAL PRESENTATIONS

a. National Parks and Recreation Month Proclamation
Presenter: Council Member Anderson to Present to Parks and Recreation Department

Council Member Anderson read the proclamation and presented it to the Parks and Recreation Department.

b. National Intern Day Proclamation
Presenter: Council Member Williams to Present to Interns

Council Member Williams read the proclamation and presented it to the Town of Clayton's Interns.

6. PUBLIC HEARINGS

a. Unified Development Ordinance Text Amendments (UDOTA 1-25)
Continued from the June 16, 2025 Meeting
Presenter: Conrad Olmedo, Planning Director

Mr. Olmedo provided an overview of the items discussed during the June 2, 2025, work session and highlighted text changes made since June 16, 2025, Council Meeting. The overview included the 4th round of UDO amendments, 107+ changes organized into six groups, and noted that updates since that meeting were highlighted in the materials.

Mr. Olmedo explained the six groups of proposed UDOTA1-25 changes: Procedures Manual/Clean Up, Procedural Changes, Density Changes, Dimensional Standards Changes, Use Type Changes (Principal, Secondary, Temporary), and Development Standards Changes.

Under Procedures Manual/Clean Up, he noted that FAQs and acknowledgments were moved to a separate Procedures Manual to allow updates without Council approval. New and revised definitions were added for clarity and alignment with Town Code. Some outdated definitions were removed. A new plant recommendation list was introduced.

Under Procedural Changes, a new uniform procedure was created for alternative plans related to parking, landscaping, and signage, which will now be decided at the staff level rather than Council. “At-risk” permits were clarified to only allow foundation pours.

Conditional rezoning procedures now make the concept plan a condition tied to the land, with a three-year reversion clause. Use-specific standards may not be waived. Construction drawings are now a stand-alone procedure and have a two-year expiration. Alternative sequencing was reassigned to the final plat stage in subdivisions. Other updates include temporary signs requiring a sign permit, separation of street renaming and closure procedures, clarification on Zoning Compliance Permits, and individual flowcharts for each application.

No changes were made to Transportation Impact Analyses.

For Density Changes, caps were removed from several districts, and density bonuses realigned.

Sustainable Development Incentives were updated to align with mass grading practices.

There were no changes to Dimensional Standards or Use Type Changes since the previous meetings.

Under Use Type Changes, several revisions were based on staff practice and community input. New or updated uses include Governmental Maintenance Facilities, updated Family Care Home capacity, reclassification of Large Format Retail, Solar Energy Conversion requirements, new design standards for Triplex/Quadplex buildings, and added regulations for Membrane Structures and Urban Archery. Outdoor Dining was updated to allow up to 20 seats with a Zoning Compliance Permit. The Temporary Use table was noted as a helpful tool.

For Development Standards, updates included reduced non-residential driveway depth, pedestrian connectivity requirements, fence exemptions for security fencing, and infrastructure clarifications aligning with State Law. Landscaping changes included updates to grading standards, credit calculations, and removal of street tree requirements in select zones. Signage exemptions were clarified, including for government traffic signs, and standards were updated for flags, signs in rights-of-way, and various other sign types.

The Planning Board reviewed the information on May 27, 2025, and gave unanimous approval with three recommendations: concerns on minor subdivision in the ETJ, text amendment submission eligibility, and clarification of Urban Archery provisions.

Additional discussion included density alignment with the 2045 Growth Plan, changes to outdoor dining seat limits, and shipping containers. Mr. Olmedo noted updates to the UDO title sheet, Zoning Compliance applicability, mass grading alignment, flag classification, and technical corrections to subdivision language and signage exemptions.

Mr. Olmedo concluded his presentation. Mayor McLeod asked if there were any questions. Council Member Casey thanked Mr. Olmedo and emphasized that the UDO is updated quarterly. He appreciated the signage, outdoor dining, and grading updates. Mayor McLeod opened the public hearing; with no comments, the hearing was closed and returned to Council for discussion.

Adoption of Ordinance #2025-06-02 and Statement of Consistency and Reasonableness

RESULT:	**CARRIED 5-0**
MOVER:	Andria Archer
SECONDER:	Michael Sims
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

7. QUASI-JUDICIAL HEARING

a. 2024-143-SUP Magnolia Pointe Special Use Permit, Substantial Deviation
Presenter: Audrey Duchesne, Senior Planner

Mayor McLeod introduced this item and requested Attorney Cauley provide a briefing as to what a Quasi-Judicial hearing is for the record. Attorney Cauley explained this would be a due process hearing, unlike the Council's Legislative hearings which are mostly rezoning matters. It was explained that due process hearings have certain procedural rule requirements. All witnesses are to be sworn in, and certain types of evidence have to be presented by expert witnesses. Council sits as a "fact finder". Like a Judge, Council would hear the evidence and would decide based on the evidence presented at this public hearing and then would decide whether the evidence satisfies the requirements of the ordinance. Attorney Cauley made himself available if there were questions. Mayor McLeod instructed anyone who would be speaking to step forward and be sworn in by the Clerk. The Clerk swore all parties in and instructed them to complete the Oath sheet.

Ms. Duchesne presented information on the 2024-189-SUP-Magnolia Pointe Special Use Permit, Substantial Deviation. She stated the proposed modification is for the reduction of the unit count and to modify some of the architectural standards and dimensional standards. The dimensional standards were set by a Special Use Process per the UDC. It was stated because this is a substantial deviation, it was reviewed with the UDC. Ms. Duchesne stated the property size is approximately 14 acres, it is located on Shotwell Road; between Amelia Church Road and Clayton Boulevard, the property is undeveloped and under the UDO as a RMD (Residential Medium Density) district.

Highlights of the project background were presented. The original SUP was approved in 2022 (2022-67-SUP). It ran concurrently with the Preliminary Plat 2022-66-SD. 68 townhome units were approved under the Unified Development Code (UDC). It was noted that town home units were only permitted via a Special Use Process.

This Substantial Deviation was associated with the Preliminary Plat (2025-36-SD) which is currently under review with the TRC (Technical Review Company). Some of the proposed deviations would include the following:

- reductions townhome units to 59
- on-street parking (12 spaces)
- relocation of buildings and cul-de-sac
- modifications to Dimensional Standards (front setback, side setback, rear setback, lot length, interior/exterior lot areas were reduced)

Elevation Modifications
Key changes between the 2022 elevations and the current 2025 design include

the addition of a third story, transforming the building into a three-story structure. The updated side façade now features new windows, while a rear deck has been added, and the front porch has been extended to project further from the front façade. The height in 2022 was 35 feet, the newest elevation is 38 feet.

Future Land Use Map
The Future Land Use is High Density Residential, which makes this project in compliance with the Future Land Use. It was stated this project is under the Gross Residential Density and the unit type is correct.

Conditions of Approval
Ms. Duchesne shared the conditions of approval that would replace the original conditions of approval. Conditions #4, # 6, #10 It was stated in condition #4, that all buildings shall include a minimum brick masonry coverage of 25% on the front building unit facades. In condition #6 it was stated that nothing changed from the previously approved conditions, goals would need to be clarified such as road improvements. The intended road improvements would include extending the sidewalks to the property line. If a technical issue should arise, the solution provided would be a fee-in-lieu request by the applicant. Ms. Duchesne stated condition #10 is a new condition and was added for future review of future applications that might come in. With this being a Substantial Deviation of a previously approved SUP, staff wanted to provide clarification on what is and isn't under vested rights.

Considerations
Ms. Duchesne stated the conditions:

- The Town Council shall make final decisions regarding Special Use Permits reviewed under the Unified Development Code (UDC).
- Special Use Permits shall address specific Findings of Fact. The burden of proof is on the applicant. These findings must be met for a Special Use Permit to be approved.
- This decision tonight is only for the Special Use Permit. The associated Preliminary Plat is a separate application that will be finalized following the permit issuance.

Ms. Duchesne stated she would allow the applicant to explain the Findings of Fact. She stated that she and the applicant are available for questions.

Mayor McLeod asked Council if that had questions.

Council Member Casey questioned this was presented under the old UDO, would this have to meet the current UDO based on the major modifications or would they be grandfathered under the old UDO? Ms. Duchesne replied, this is a Substantial review to a previously approved, this would run under the UDC

original approval. Council Member Casey asked Ms. Duchesne, would the applicant do the fee-in-lieu for the sidewalk at 125%? Ms. Duchesne replied, yes, 125% in case there is NCDOT communication that will be considered in case there are site constraints that would need to be made. The Fee-in-Lieu would be for those portions of the sidewalks. Council Member Casey asked about the locations of the dumpsters on the Site Plan and the dumpster requirements. Haley Downey, Assistant Planning Director, replied there will be individual rollouts instead of a singular dumpster enclosure to serve this development. Council Member Casey asked, is that standard in the UDC? Ms. Downey replied that it varied; when there are subdivided lots the would have rollouts whereas if there was a singular lot, they would have a dumpster enclosure. The UDC didn't have a specific requirement. Council Member Casey asked if there was a road curvature standard? Ms. Duchesne responded there has been an alternative standard request approval that was part of this submission, which was approved by Courtney Tanner, Deputy Town Manager. Council Member Casey responded he had no further questions, since it is under the UDC.

Mayor McLeod asked if Council had any other questions for staff. Having none, Mayor McLeod turned it over to the applicant.

Mrs. Terrazas, with Parker Poe Adams and Bernstein appeared on behalf of the applicant, Mattamy Homes. Mrs. Terrazas requested that the presentation, staff report, agenda, all attachments, and video and audio recordings of this meeting be admitted into the record.

Mrs. Terrazas stated that Magnolia Pointe was a previously approved residential development that planned for 68 high quality townhomes, with ample open space, pedestrian facilities, and a compact design that would avoid the environmentally sensitive areas of the subject site. The modifications to this project are relatively minor in nature and would not alter the vision for the residential community.

Mrs. Terrazas mentioned during the property overview that the site is almost 14 acres on Shotwell Road located between Highway 70 and Amelia Church Road. On the Town's Comprehensive Plan, it is designated for high density residential development, which are areas designated for denser housing, such as townhomes near major transportation corridors and commercial areas where utilities are available. Mrs. Terrazas noted that this site does have some features that would make it challenging to develop.

She named the current challenges:

- much of the northern and western borders of the site are occupied by

streams and wetlands
- there is a power line easement that runs through the center of the site
- there is some difficult topography

Mrs. Terrazas shared that Town Council approved an SUP for a townhouse project under the prior version of Clayton's development ordinance, the UDC and the wastewater allocation in November of 2022. It was stated this SUP was recorded in the Johnston County Register of Deeds and the preliminary plat was administratively approved.

Mrs. Terrazas requested permission from Mayor McLeod to submit the recorded approved 2022-67-SUP into evidence by giving it to the Clerk. Mayor McLeod agreed. The Clerk received the 2022-67-SUP from Mrs. Terrazas and provided copies to the individuals seated at the dais.

Mrs. Terrazas explained that the original developer who obtained the Special Use Permit (SUP) submitted and initiated the construction drawing process following approval but ultimately chose not to proceed with the project. She shared that her client, Mattamy Homes, saw potential in the development and, in collaboration with the property owner, has decided to move the project forward.

During consultation with their project engineer, and in alignment with Mattamy Homes' vision, it was determined that adjustments to the design were necessary. These changes aim to better accommodate the site's challenging topography and to incorporate on-street parking outside of the travel lanes.

(The four findings of fact were displayed)
- That the application will not materially endanger public health or safety if located where proposed and developed according to the plans as submitted and approved.
- That the application meets all required specifications and conforms to the standards and practices of sound land use planning and the town Code of Ordinances or other applicable regulations.
- That the application will not substantially injure the value of adjoining or abutting property and will not be detrimental to the use or development of adjacent properties or other neighborhood uses.
- That the application will not adversely affect the adopted plans and policies of the town or violate the character of existing standards for development of the adjacent properties.

Mrs. Terrazas shared that during consultation with staff, it was determined that Mattamy Homes' proposed changes to the plan exceeded the scope of minor deviations that could be approved administratively. This was due to the relocation of certain buildings and the addition of linear feet to the public street. It was also noted that additional parking could not be accommodated because of

an existing Special Use Permit (SUP) condition requiring “No Parking” signage.

In accordance with the Unified Development Code (UDC), any modifications to the SUP must be reviewed through a Quasi-Judicial hearing, following the same regulations and standards as the original SUP approval. Mrs. Terrazas referenced a similar SUP modification heard by Council last year for the Pawville project, which involved changes to the building size and the relocation of a stormwater pond.

Mrs. Terrazas informed Council that competent material and substantial evidence would be presented to address each of the required SUP factors, as outlined in UDC Section 155.711, through testimony from two witnesses. She introduced the witnesses and stated their titles.
Ms. Ashley Hails, a Professional Engineer with ESP, would address Factors 1, 2, and 4—specifically, that the modified application would not endanger public health or safety and that it complies with all applicable regulations. Mr. George Young, a Developer and Licensed Real Estate Broker with Mattamy Homes, would address Factor 3, demonstrating that the modified SUP application would not substantially injure or negatively impact adjoining properties.

Mrs. Terrazas called Ms. Ashley Hails to address Factors 1, 2, and 4.
Mrs. Terrazas requested that Ms. Hails state her name and address. Ms. Hails provided said information. Mrs. Terrazas requested that Ms. Hails describe her background and experience. Ms. Hails replied that she is a Licensed Professional Engineer in the State of North Carolina. She stated that she has been practicing Engineering for approximately 5 years, with 7 years in residential subdivisions and roughly 20 years of experience in the industry. She continued to state that she has been working with Mattamy Homes for over a year.

Mrs. Terrazas proceeded to enter in Ms. Hails as an expert in the field of Civil Engineering and site design.

Mrs. Terrazas requested that Ms. Hails explain her role in the project. Ms. Hails responded that she is the Engineer of record for the project and has overseen the layout and design of the permit plans for the 2025-036 Subdivision Plat.

Mrs. Terrazas requested permission to submit the preliminary plat accompanying the SUP modification (2025-36 SD) into evidence. Mayor McLeod agreed.

Mrs. Terrazas referenced page 3 of the preliminary plat and asked Ms. Hails to describe the document.

Ms. Hails described it as the general layout of the site, with 59 townhome units and mixtures of three-, four-, five- and six-unit blocks. Providing roughly 2.55 acres over 111,000 square feet of open space of which .44 acres or little over

19,000 square feet would be improved. It was stated much of the development's environmentally sensitives areas have been kept, while providing the same access points, roadway improvements and the additional 25 feet of right-of-way along the frontage.

Mrs. Terrazas asked, “has anything changed to the access points on the plan?”

Ms. Hails responded overall that the same access points would exist, pending NC DOT approval during the driveway permit application phase.

Mrs. Terrazas asked Ms. Hails to provide a detailed explanation of the proposed changes to the original Magnolia Pointe Special Use Permit (SUP) plan, previously approved by Council, and to explain the reasons behind those changes.

Ms. Hails explained that the primary goal of the proposed changes was to reduce the amount of grading required on the site. As shown in the overlay, adjustments were made to realign the cul-de-sac, revise the layout of the residential units, and reposition the stormwater retention pond. These modifications allowed the overall site disturbance to be reduced, decreasing the need for imported fill by more than 25,000 cubic yards.

She noted that the site’s topography posed challenges due to its location, being surrounded by a tributary of Little Creek. By adjusting the layout, the number of retaining walls was also reduced. Four residential units were removed from the intersection of Street A and Shotwell Road, thereby eliminating the previous encroachment on or proximity to the adjacent dental office parcel.

Ms. Hails also stated that on-street parking has been proposed in areas outside the travel lanes to better accommodate visitors. Additionally, pedestrian circulation has been enhanced by incorporating multiple sidewalks and a connection to the south, promoting better connectivity throughout the neighborhood.

Mrs. Terrazas asked Ms. Hails to explain how the original plan showed the sidewalk to the South and how it has been revised in coordination with staff.

Ms. Hails explained that one of the SUP conditions addressed initially the sidewalk connection and the previous SUP terminated at the property line but was misaligned with the current existing sidewalk on the property to the South. Through the proposed design the sidewalks would be connected and when the roadway section is widened, the fee-In-leu that would be provided by us would help the Town.

Mrs. Terrazas asked Ms. Hails if the applicant is proposing some revisions to the approved SUP conditions to reflect the changes to the SUP plan and the site

layout that you just discussed.

Ms. Hails responded in the affirmative and stated the conditions are summarized on the screen, but essentially the conditions need to be updated to refer to number one, the fact that a revised plat was provided. Number two, stating Mattamy Homes would allow street parking and designated spaces. Number three to remove the need for landscaping along the four units that were backing up to the dentist's office. In coordination with staff, the sidewalk connection has been developed on the existing sidewalk to the South, which would provide a walking path from the development to the Clayton Community Center.

Mrs. Terrazas asked Ms. Hails if the applicant’s team prepared and submitted a redline comparison of the SUP conditions to clearly show the proposed changes requested by the SUP modification application.

Ms. Hails responded in the affirmative.

Mrs. Terrazas asked Ms. Hails if this was the document.

Ms. Hails responded in the affirmative.

Ms. Hails requested permission to submit the comparison between the recorded and approved SUP conditions and the signed revised conditions into evidence. Mayor McLeod agreed. Mrs. Terrazas gave the documents to the Clerk; the Clerk gave it to the individuals seated at the dais.

Mrs. Terrazas asked Ms. Hails if the elevations shown on the screen and what Ms. Duchesne presented this evening, showing the elevations of the approved SUP on the left and the proposed modified SUP on the right?

Ms. Hails responded yes, that is correct.

Mrs. Terrazas asked Ms. Hails to go over the differences.

Ms. Hails responded that the Mattamy Homes project is three stories, the increase in height is three additional feet. That is due to the adjustment in the roof pitches. It was stated by looking at the currently approved side elevations, the proposed modification shows windows on the sides of the end units. It was stated many of the important high quality and architectural and aesthetic elements are maintained. 25% brick would still be offered on each unit’s façade. Ms. Hails stated they would not use vinyl siding and that vinyl siding would only be used for accents. Ms. Hails stated they would use as the previous SUP proposed, fiber cement shingles, board and batten, and fiber cement lap siding.

Mrs. Terrazas thanked Ms. Hails for describing the proposed modifications to the

Magnolia Pointe Special Use Permit. She then asked Ms. Hails to refer to the second factor, did the SUP modifications comply with all applicable UDC provisions and regulations applicable to the Special Use Permit.

Ms. Hails responded yes and that they have gone through two rounds of review with the TRC and they are expecting final approval pending any minor comments. She added that they have been great to work with.

Mrs. Terrazas asked Ms. Hails regarding factor number one, do these modifications present concerns regarding public health or safety?

Ms. Hails responded no, the layout and use of the elements included on the plans do not endanger public health and safety.

Mrs. Terrazas asked Ms. Hails regarding factor number four, do any of the modifications to Magnolia Pointe adversely affect the Town's policies or violate the character of existing standards for development of adjacent properties?

Ms. Hails responded no, these modifications do not adversely affect Town policies and do not make any changes that would impact the character of this development nor the character or development for adjacent properties. The side access and frontage improvements would remain the same and these changes would not impact the adjacent properties. It was stated they would eliminate the number of homes that were planned closest to neighboring properties and thereby lessening the impacts on those properties.

Mrs. Terrazas concluded and stated that she had no other questions for Ms. Hails and then asked Council if they had any questions.

Council Member Casey stated he felt like SUPs were a lot of legal ease and perhaps this is one of the reasons why we no longer do SUPs. He then verified with Ms. Hails that she stated this site has significant wetland and elevation changes.

Ms. Hails verified that it was correct, and the area is located in the Northern and Western perimeters. She then stated there is an outline of the flood plain and the resource preservation area.

Council Member Casey responded, being aware of those changes, you would be following State and Town codes.

Ms. Hails responded yes, this is correct.

Council Member Casey inquired if the applicant would be willing to do a double silt fence along those challenging areas?

Ms. Hails responded yes.

Council Member Casey responded thank you and requested that be added into the conditions.

Mayor McLeod asked if there were any other questions. Having none, Mrs. Terrazas called the next witness, George Young.

Mrs. Terrazas asked the witness to state his name and address for the board.

George Young provided his name and his address: 2612 Koolie Drive in Raleigh.

Mrs. Terrazas asked Mr. Young to explain his background and experience for the board.

Mr. Young expressed thanks to the Mayor and Council Members for their time. He stated that they were excited to be present and to have the opportunity to discuss Magnolia Point. Mr. Young said that his experience includes being in real estate since the early 90's, more specifically in residential and land development. His primary focus is land acquisition and development throughout the triangle market. He stated that he is a graduate of NC State.

Mrs. Terrazas asked Mr. Young if he was a licensed real estate broker.

Mr. Young responded he is a licensed real estate broker with the State of North Carolina.

Mrs. Terrazas responded thank you and stated she wished to enter George Young as an expert in the fields of impact through property and compatibility with surrounding properties. She then asked Mr. Young to explain his role in this project.

Mr. Young responded that he is Vice President of land acquisition for Mattamy Homes. He stated that they have been working with the landowner of this property, Matt Stevens of Stevens Enterprises Asco Builders and they have owned for some time. Mr. Young continued to say they started looking at the property with the existing SUP in mind. He stated the density begun to get into the development cost, in terms on how the site would be developed. Mattamy Homes wanted to create a curb appeal up to the standards of both Mattamy Homes and the Town of Clayton, and that would be great for the Town of Clayton. Mr. Young stated they have been working with staff for close to a year. Initially it was thought the modification would be minor but aspects of it required them to come back to the board. It was stated that they had regular meetings with both ESP, Parker Poke, Mattamy Homes' representatives and with the

Town of Clayton staff, Courtney Tanner and Conrad Olmedo. Mr. Young stated he has been involved every step of the way.

Mrs. Terrazas requested that Mr. Young provide a background of Mattamy Homes and his vision of the project and why he chose to take it through this process.

Mr. Young began by saying they are believers in Clayton. He stated they are a large private home building, not a Wall Street driven public home builder. It was stated they develop throughout Wake, Johnston, Harnett and Lee counties. Mattamy Homes conducts the acquisitions, the development, and the entitlement. Mr. Young stated that in terms of this, it calls for some density, the proximity to work and it is a great location, this is where people would want to live. He mentioned that they saw this as an opportunity to further their footprint. Mr. Young informed Council there isn't a big deal in terms of the number of units, but they wanted to clean up a little bit of the engineering that was previously done, so that there would be a better streetscape and a better overall product of the townhomes.

Mrs. Terrazas asked Mr. Young, when they were planning the modifications to this community with your Project Engineer, did you evaluate if it would injure the value of the neighboring properties or development of adjacent properties.

Mr. Young responded they did evaluate if this would injure. He feels that the work they have done does not injure the adjacent properties or their valuations. He mentioned the re-engineering work that has been done and re-evaluating how the site is being developed does more to protect the valuation and their welfare that what would have been done under the previous SUP. This would involve a lot of earth work, the retaining walls were eliminated, and by creating a better streetscape.

Mrs. Terrazas asked Mr. Young, in his professional opinion with respect to factor number three, would this application substantially injure the value of the adjoining properties? Does it move the planned residential units farther away from the adjacent properties?

Mr. Young responded it would not injure them, and it would move the units further away from the existing residential property.

Mrs. Terrazas thanked Mr. Young and stated that she didn't have any other questions for him.

Mr. Young expressed excitement and thanked Council for allowing them to be there. He stated he felt like the steps that they went through with the Town's staff were very healthy. It was stated that he wasn't sure if this would require substantial modification.

Mayor McLeod thanked Mr. Young and asked Council if there were any questions or comments. Having no questions or comments, Mrs. Terrazas summarized the evidence before the hearing was closed, in case there is contrary evidence and asked if she would be able to summarize. Mayor McLeod responded yes, and he would call for anyone who wished to speak against this and if there isn't anyone, there would be no need for a rebuttal. Mrs. Terrazas agreed.

Mayor McLeod asked if there was anyone that wanted to speak against this particular development. There was no need for a rebuttal due to no one wishing to speak against this project. Mayor McLeod turned it over to Town Council for questions and deliberation.

Council Member Archer stated that the matter had been thoroughly addressed. She explained that her conclusions were based on testimony from credible witnesses and the four required findings of fact. These findings, which she noted, were referenced multiple times during the presentation and are documented on page three of the staff report and page six of the full PDF available online. Based on the nature of the hearing and the evidence presented, Council Member Archer expressed her belief that the application satisfies all four findings of fact.

Council Member Casey stated that SUPs are very judicial and are litigious. He stated Mattamy (Homes) is a large builder, and they build a good product. They have met the have met the findings of fact on this Quasi-Judicial hearing.

Mayor McLeod asked if there was anyone else. He stated it is currently competitive in Clayton, and this isn't the first concept presented. Mayor McLeod continued on to state, if you want to make this super successful, look at the outside facade that would be created. He stated he wants Mattamy Homes to be successful. With that, Mayor McLeod requested motions.

Council Member Archer thanked the Mayor and made a motion to adopt ordinance 2025-01-01 and from the proceedings that was provided, that would include the 10 conditions listed as well as the 11th condition regarding the double silt fencing. She entered into the record that the applications met the four findings of fact. Council Member Archer asked Town Attorney Cauley if she would need to read those into the record or have, they been covered sufficiently. Town Attorney Cauley replied that they have been covered sufficiently.

Council Member Archer stated that concluded her motion.

Mayor Pro Tem provided his second.

Mayor McLeod stated we have a motion and a second for the adoption of the ordinance 2025-07-01. He asked if there was any further discussion. Hearing none, Mayor McLeod stated the motion was carried.

Adoption of Ordinance #2025-07-01

RESULT:	**CARRIED 5-0**
MOVER:	Andria Archer
SECONDER:	Michael Sims
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

8. OLD BUSINESS

9. NEW BUSINESS

a. Adopting the Town Emergency Operations Plan (EOP) and Authorizing the Development and Administrative Management of a Continuity of Operations Plan (CoOP)
Presenter: Stacey Turner, Deputy Fire Chief

Deputy Fire Chief Turner stated he was tasked with updating and developing comprehensive plans to guide the Town's response to major incidents and disasters. The Emergency Operations Plan was developed in collaboration with internal stakeholders and essential personnel. This public-facing document outlines foundational framework for the Town's coordinated response to large-scale emergencies. Together with complimentary plans such as the Continuity of Operations Plan, the EOP ensures a structured, efficient response that facilitates rapid recovery, restoration of critical infrastructure, and sustained delivery of essential services throughout the community.

Adoption of Resolution #2025-65

RESULT:	**CARRIED 5-0**
MOVER:	Michael Sims
SECONDER:	Andria Archer
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

10. STAFF REPORTS

a. Town Manager

Town Manager Cappola thanked everyone for participating in the Square-to-

Square event and the fireworks on the 4th of July. He stated he hopes to continue it next year, but they would face a challenge with the loss of using the high school as a launching location for the fireworks although other opportunities are being sought. It was stated additional information would be shared. He gave a kudos to Parks and Rec, Communications, Police, Fire, Engineering, Streets and every department that participated.

b. Town Attorney

c. Town Clerk

d. Other Staff

11. OTHER BUSINESS

a. Informal Discussion & Public Comment

Mayor McLeod opened the floor and stated the time limit would be three minutes.

Sherry Morgan, Town resident, asked that the LGBTQ Proclamation be rescinded.
Brittney Matthews, Town resident, asked that the LGBTQ Proclamation be rescinded.
Ruth Warden, Town resident, spoke on her address being changed and expressed concern due to medical supplies not being received.
Steve Roy, Town resident, asked that the LGBTQ Proclamation be rescinded.
Brent Highfil, Town resident, asked that the LGBTQ Proclamation be rescinded.
Mary Elizabeth Mayo, Town resident, spoke in favor of Magnolia Pointe and against the LGBTQ Proclamation.
Mary Stevenson, Town resident, spoke against the LGBTQ Proclamation.

Mayor McLeod thanked everyone for their comments.

b. Council Comments

12. CLOSED SESSION

a. To Discuss Legal Matter in Accordance with NC GS 143-318.11 (a)(3)
To Discuss Economic Development in Accordance with NC GS 143-318.11 (a)(4)
To Discuss Purchasing of Real Property in Accordance with NC GS 143-318.11 (a)(5)

Motion To Go Into Closed Session

RESULT:	**CARRIED 5-0**
MOVER:	Michael Sims
SECONDER:	Porter Casey

YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

Motion To Return To Open Session

RESULT:	**CARRIED 5-0**
MOVER:	Michael Sims
SECONDER:	Porter Casey
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

13. ADJOURNMENT

a. Adjourn

With nothing further, the meeting was adjourned at 9:00 p.m.

Motion To Adjourn

RESULT:	**CARRIED 5-0**
MOVER:	Michael Sims
SECONDER:	Ruth Anderson
YES:	Michael Sims, Andria Archer, Porter Casey, Ruth Anderson, and Gretchen Williams
NO:	None

Duly adopted by the Town Council this 18th day of August 2025 while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Assistant
Acting Town Clerk

Town of Clayton
Town Council Work Session Minutes
Monday, August 4, 2025 at 3:00 PM
Rotary Room, Town Hall
111 E. Second Street

Council Present:	**Staff Present:**
Mayor Jody McLeod	Rich Cappola, Town Manager
Mayor Pro Tem Michael Sims	Jim Cauley, Town Attorney
Council Member Andria Archer	Heidi Holland, Town Clerk
Council Member Ruth Anderson	Dolores Gill, Deputy Town Manager
**arrived at 3:12 p.m.*	Lee Barbee, Deputy Town Manager
Council Member Gretchen Williams	Courtney Tanner, Deputy Town Manager
	Greg Tart, Police Chief
	Robert McKie, Jr., Finance Director
	David Ranes, Fire Chief
Council Absent:	Barry Alston, Inspections Director
Council Member Porter Casey	Ethan Poppe, Electric Services Technician
	Tim Robbins, Public Works Director
	Richard Worsinger, Electric Dept. Consultant
	Franck Boisette, Permit Specialist

1 CALL TO ORDER

a) Mayor McLeod called the meeting to order at 3:04 p.m.

2 ADJUSTMENT OF THE AGENDA

a) **Adopt or Adjust the Agenda**

RESULT:	**CARRIED 4-0**
MOVER:	Michael Sims
SECONDER:	Andria Archer
YES:	Michael Sims, Andria Archer, Ruth Anderson, and Gretchen Williams
NO:	None
ABSENT:	Porter Casey

3 STAFF INTRODUCTIONS AND RECOGNITIONS

a) 3:00 - 3:10 p.m.

- Franck Boisette, Permit Specialist

Presenter: Barry Alston, Inspections Director

Mr. Alston introduced Franck Boisette, the Town's new Permit Specialist and Deputy Town Manager Barbee introduced Richard Worsinger, who will serve as a consultant for the Electric Department during the period without an Electric Director.

4 ITEMS FOR DISCUSSION

a) 3:10 - 3:40 p.m.
Electric Master Plan Update
Presenters: Ethan Poppe, Seth Locklear and Tony Pearce from Electric Consulting Engineers

Mr. Poppe stated the Town recently contracted with Electric Consulting Engineers to help develop an Electrical Utility Master Plan. He introduced consultants Seth Locklear and Tony Pearce. Mr. Locklear provided an outline of his presentation.

Mr. Locklear stated the Town has 9,148 meters with a peak kilowatt demand of 34 megawatts, 113 miles of overhead lines, 173 miles of underground lines, and two substations: Northside and Southside. He stated the Electrical Utility Master Plan is designed to determine forecasted load requirements and capacity constraints and to make recommendations to increase facility capacity and improve performance.

Demand growth rate over the past 10 years has been approximately 3%, which is very healthy. Shared was the projected 2035 load growth which is based on the peak not the average. The projected 2035 demand is 43 megawatts. No voltage or capacity issues were found in the study and no major upgrades were recommended. He stated in the event of a Northside Substation transmission outage, Southside Substation would be at capacity with the projected 2035 peak load.

Site-specific loads were discussed.

Copper District – there are two large area of parcels with the demand of 9.5 MW per area. Voltage and thermal loading issues are present. It was recommended if we receive this load, it would require at minimum to install additional Southside circuit and rebuild South circuit for two circuits to split the load. Heavner Property – the demand is 2.0 MW for commercial load; the analysis showed no major issues. Recommendations are to install redundant UG service along US 70 to serve the commercial load. NCRR Development – the demand is 2.6 MW; the analysis showed no major issues. No major upgrades were recommended.

Discussed were resiliency upgrades. Cobblestone Tie is the largest one that had been identified. The problem identified was 4.8 MW isolated with no

redundant feed. It was recommended to tie Dairy Road to Hwy 70 to provide a strong backfeed between the South Circuit and Hwy 42 Circuit. Steeplechase Loop – the problem identified is no redundant feed for O'Neil Street and Hwy 70. It was recommended to tie City Road through Steeplechase back to Northside Substation. Glen Laurel Tie – the problem identified is no redundant feed for Glen Laurel Road. It was recommended to parallel existing 230 kv Duke transmission and tie back into existing distribution along Birkdale Drive. Mr. Locklear stated this is worth pursuing. Southside Reclosers – the problem identified is aging equipment needing replacement. It was recommended to replace existing reclosers with Viper switches and new controls to standardize with Northside equipment.

Next steps would be to compile a report, run fault current testing, create a schedule, and finally submit a plan. When a plan is submitted, consultants would come back with a report and the information would then be available to share with our citizens.

5 BREAK

a) 3:40 - 3:45 p.m.

6 ITEMS FOR DISCUSSION

a) 3:45 - 4:00 p.m.
Clariti Update
Presenter: Courtney Tanner, Deputy Town Manager

Ms. Tanner presented the custom-built program, noting that it is still in the testing environment and not yet fully built out. She stated the project remains on track, with Phase 1 scheduled to go live this fall. A demonstration was provided from both the applicant and employee perspectives.

She explained that all applications will have consistent numbering, something not currently in place, and showcased various types of submission requests. From the staff side, employees will be able to easily search submissions and check the status of applications. Only two to three designated staff members will have permission to delete documents. The system will also provide applicants with explanations if their submissions are incomplete or incorrect. Features include review cycles, sufficiency checks, and address verification to flag invalid locations.

Bluebeam integration testing will occur within the next 30 days. Each application would include an acknowledgment statement. Payment processing would include a 4% credit card convenience fee (higher than current customer service fees to allow for American Express transactions) and a $10 technology fee per application.
Mayor Pro Tem Sims asked whether the program includes terminology

assistance for applicants. Ms. Tanner confirmed that it does, noting that text pop-ups with helpful guidance will appear as applicants complete their forms.

b) 4:00 - 4:30 p.m.
Security Updates
Presenter: Rich Cappola, Town Manager

Ms. Gill provided an update on recent emergency and security planning efforts, including the adoption of the EOC and Continuity of Operations (CoOp) plans. She noted that each building now has a building-specific safety plan housed with its Standard Operating Procedures (SOP).

She stated that concerns had been raised regarding the two separate entrances at the front desk. As a public building, both staff and visitors must feel safe. Staff have been collaborating to develop an SOP that strengthens existing procedures and outlines improvements.

Council received a draft of the Municipal Building Safety and Security Summary and the Visitor Entrance and Safety Guide SOP. Under the proposed process, visitors attending a meeting will be required to sign in at the reception desk and receive a visitor tag. Citizens visiting public floors will select one of three different colored stickers from a badge dispenser near the stairway; all citizens in the building should be wearing a sticker.

The Town Hall Floor Access SOP was also shared, detailing entry procedures for citizens arriving before the building opens. Staff will be instructed to communicate these entrance and safety procedures in calendar invitations. All front desk staff have participated in developing the process.

Ms. Gill presented sample signage. In response to Council Member Anderson's question about instructions at the front door, she stated that a long banner with directions would be displayed in the lobby.

Ms. Gill requested permission to close the 2nd Street entrance during normal business hours due to the high volume of uncontrolled traffic. The door could be opened during staffed events. Council Member Anderson emphasized the need for a large sign outside notifying citizens if the 2nd Street door is closed, possibly with "STOP" at the top for visibility.

Mr. Tart expressed ongoing concern over the 2nd Street entrance and stressed the need for tighter access control. Ms. Gill stated staff training on the new procedures is scheduled for the August 20, 2025, leadership meeting.

Additional discussion included preventing "piggybacking" when someone enters behind another person, raising staff awareness, using laptops with cameras to capture visitor photos upon entry, and closing the 2nd Street door

during Council meetings.

Council reached consensus to move forward with the proposed procedures.

7 BREAK

a) 4:30 - 4:35 p.m.

8 ITEMS FOR DISCUSSION

a) 4:35 - 5:00 p.m.
Pavement Condition Survey and Predictive Modeling Presentation
Presenters: Tim Robbins, Public Works Director and Steve Lander, WithersRavenel

Mr. Robbins introduced Steve Lander, Director of Pavement Management from WithersRavenel. Mr. Lander stated it had been 3 years since the last pavement survey, they just completed the Town's most recent survey in February 2025 and are here to share findings and recommendations.

Pavement Condition Survey (PCS), Phase 1 was discussed. The Federal Highway Administration recommends a survey every 2 years. He stated the roads area graded on a scale from 0-100. An experienced 2-person crew performs the study in a vehicle with a maintained speed of 5-10 mph.

Clayton maintains 97 miles of asphalt pavement streets. The Long-Term Pavement Performance (LTPP) was used and showed 7 pavement surface distresses which included fatigue cracking, transverse cracking, block cracking, patching/potholes, surface defects, rutting/roughness, and reflective cracking.

Street Inventory showed that most of the streets within the Town are paved; to repair all the streets would cost approximately $9.2 million. According to the findings, the pavement condition index (PCI) is 80, up from 69. He stated the Town is doing great compared to other municipalities.

Results of the analysis were shared proposing 3 budget scenarios (20-year analysis).

1. Current Budget $2.5M/year
2. Powell Bill ($1M/year)
3. $2.5M/year for years 1-5, then $1.5M/year

Predictive modeling results were shared for each scenario showing PCI (year 20), 20-year RAV and Change in RAV. He stated the model does not include inflation. It was stated scenario 3 would work best for the Town.

Recommendations included maintain annual roadway funding, conduct regular pavement condition surveys (every 2 to 3 years), perform geotechnical testing,

utility full toolbox, develop construction history, utilize software results, and integrate with other assets.

9 ADJOURNMENT

a) With nothing further, the meeting was adjourned at 5:13 p.m.

Motion To Adjourn

RESULT:	**CARRIED 4-0**
MOVER:	Michael Sims
SECONDER:	Gretchen Williams
YES:	Michael Sims, Andria Archer, Ruth Anderson, and Gretchen Williams
NO:	None
ABSENT:	Porter Casey

Duly adopted by the Town Council this 18th day of August 2025 while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Assistant
Acting Town Clerk

TOWN OF CLAYTON
CERTIFICATE OF SUFFICIENCY
Annexation Petition 2025-40-ANX

To the Town Council of the Town of Clayton, North Carolina:

I, Heidi L. Holland, Town Clerk, do hereby certify that I have investigated the 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 N.C. G.S. 160A-31.

In witness whereof, I have hereunto set my hand and affixed the seal of the Town of Clayton, this 5th day of August 2025.

Heidi L. Holland

Heidi L. Holland, MMC, NCCMC
Town Clerk

DESCRIPTION/ADDRESS:

Pin #s:	166811-75-4247, 166811-75-2127, 166811-75-2111, 166800-74-6900, 166800-74-2476, and 166800-74-2470
Tax #s:	05A01006, 05A01009, 05A01009A, 05A01013, 05A01016, and 05A01018
Location:	Located on the southerly side of Clayton Blvd, east of the intersection of Buckhorn Branch Park, west of the intersection Hardee Lane, and easterly of Wildwood Drive with unassigned addresses.
Contiguous:	A total of approximately 2.89 acres to be annexed
Owner:	Clayton Corner, LLC and Clayton Village Center, LLC

TOWN OF CLAYTON
INCORPORATED
APRIL 1869
CLAYTON, N.C.

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	CONSENT AGENDA

Item Title

Resolution to Set Public Hearing 2025-40-ANX Clayton Village Center Annexation

Presenter(s)

Haley Downey, AICP, CZO Assistant Planning Director

Suggested Action

Adoption of Resolution - Resolution #2025-74

Strategic Priorities Alignment

☐ Vibrant Downtown	☒ Desirable Amenities and Spaces	☐ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☒ Diversified Economic Development	☐ Community Outreach and Engagement	☐ Public Safety

Public Hearing: No

Applicable General Statute Number: §160A-31

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Public Forum/Input Session
- ☐ Press Release
- ☐ E-News Distribution
- ☐ Website
- ☐ Social Media
- ☐ Survey

☐ Special Mailing ☒ None Required

Summary

The applicant is requesting a contiguous annexation of 2.89 acres of land currently located in the Town's ETJ. This request is made to receive Town services for future development of the parcels. There are six parcels included in this request, consisting of a cumulative 12.39 acres. Of that, 9.50 acres are already located in the corporate limits. Annexation of the remaining 2.89 acres is requested prior to Construction Drawing approval of the associated development proposal.

Background/History

This annexation request is made following Conditional Rezoning of the subject properties in 2022 to allow for the development of multi-family and retail on the properties. This was approved via 2022-158-CZM and is under modification via 2025-34-CZM (scheduled for Council Public Hearing on September 2, 2025).

Following approval of the associated Conditional Rezoning in 2022, the applicant received Site Plan approval for development of the property in accordance with the associated Master Plan. The development is now under Construction Drawing review. Prior to approval of construction drawings, annexation is required to receive Town services.

Recommendation

Approval of the Resolution to Schedule a Public Hearing

Funding Source

N/A

Cost

N/A

Corresponding Documentation

1_ Resolution to set Hearing_Clayton Village ANX_07212025

2_Application_ClaytonVillageANX_07222025

3_Legal Description_Clayton Village ANX_07212025

4_Plat_Clayton Village ANX_07212025

Meeting Timeline

August 4, 2025: Resolution to Authorize Clerk to Investigate Sufficiency
August 18, 2025: Resolution to Set a Public Hearing
September 2, 2025: Public Hearing

Submitted By: Haley Downey, Planning

Reviewed By:

Haley Downey, Assistant Planning Director	Approved - Aug 07 2025
Conrad Olmedo, Planning Director	Approved - Aug 07 2025
Courtney Tanner, Deputy Town Manager	Approved - Aug 13 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

TOWN OF CLAYTON, NC
RESOLUTION TO SET A PUBLIC HEARING FOR
A PETITION RECEIVED UNDER NCGS §160A-31
2025-40-ANX CLAYTON VILLAGE CENTER ANNEXATION

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

WHEREAS, the Town Council has by resolution directed the Town Clerk to investigate the sufficiency of the petition; and

WHEREAS, certification by the Town Clerk as to the sufficiency of the petition has been made.

NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Clayton that:

SECTION 1. A public hearing on the question of annexation of the area described herein will be held at the Clayton Town Hall, Chambers, at 6:00 PM on Tuesday, September 2, 2025.

SECTION 2. The area proposed for annexation is described as follows:

TRACT 1
PIN: 166811-75-4247 (portion of)
Johnston County Tax ID: 05A01006

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a iron pipe, said pipe being the northwest corner of Clayton Corner LLC, Deed Book 5711 Page 510, thence N50°41'03"E, 110.28' to a point, thence S71°29'20"E, 87.17' to an iron rebar, thence S50°36'15"W, 56.44' to an iron pipe, thence S50°50'48"W, 173.74' to an iron pipe, thence N05°43'45"E, 12.47' to a point, thence N05°43'45"E, 60.00' to an iron pipe, thence N05°43'45"E, 31.37' to the point of beginning, being 0.29 acres (12,548 square feet), and being a portion of Clayton Corner, LLC as shown in Deed Book 5711 Page 510, and being a portion of PIN: 166811-75-4247.

TRACT 2
PIN: 166811-75-2127
Johnston County Tax ID: 05A01009

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at an iron pipe on the eastern right-of-way of Wildwood Drive, said pipe being the northwest corner of Clayton Village Center, LLC, Deed Book 5716 Page 48, and being the northwest corner of Lot 17 as shown on Plat Book 7 Page 213, thence S89°53'05"E, 242.58' to an iron pipe, thence S05°43'45"W, 60.00' to a point, thence N89°57'16"W, 236.71' to a point

on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N00°06’46”E, 60.00’ to the point of beginning, being 0.33 acres (14,344 square feet), and being all of Lot 17 as shown on Plat Book 7 Page 213, and being all of PIN: 166811-75-2127.

TRACT 3
PIN: 166811-75-2111
Johnston County Tax ID: 05A01009A

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a point on the eastern right-of-way of Wildwood Drive, said point being the northwest corner of Clayton Village Center, LLC, Deed Book 5716 Page 48, and being the northwest corner of Lot 18 as shown on Plat Book 7 Page 213, thence leaving said right-of-way, S89°57’16”E, 236.71’ to a point, thence S05°43’45”W, 12.47’ to an iron pipe, thence S42°37’59”E, 64.73’ to a point, thence N89°57’22”W, 279.42’ to a point on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N00°06’46”E, 60.00’ to the point of beginning, being 0.35 acres (15,182 square feet), and being all of Lot 18 as shown on Plat Book 7 Page 213, and being all of PIN: 166811-75-2111.

TRACT 4
PIN: 166800-74-6900 (portion of)
Johnston County Tax ID: 05A01013

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a point on the eastern right-of-way of Wildwood Drive, said point being the northwest corner of Clayton Village Center, LLC, Deed Book 5334 Page 267, and being the northwest corner of Tract 2 as shown on Plat Book 72 Page 481, thence S89°57’22”E, 279.42’ to a point, thence S42°37’59”E, 81.61’ to a point, thence N89°57’22”W, 327.82’ to a point, thence S00°06’46”W, 121.30’ to a point, thence S89°56’46”W, 7.00’ to an iron rebar on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N00°06’46”E, 181.31’ to the point of beginning, being 0.44 acres (19,276 square feet), and being a portion of Tract 2 as shown on Plat Book 72 Page 481 and being a portion of PIN: 166800-74-6900.

TRACT 5
PIN: 166800-74-6900 (portion of)
Jonston County Tax ID: 05A01013

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a point on the eastern right-of-way of Wildwood Drive, said point being the southwest corner of Clayton Village Center, LLC, Deed Book 5334 Page 267, and being the southwest corner of Tract 2 as shown on Plat Book 72 Page 481, thence along said right-of-way, N00°14’57”W, 180.27’ to an iron rebar, thence N00°48’49”W, 60.13’ to an iron pipe, thence leaving said right-of-way, S89°58’42”E, 350.13’ to an iron pipe, thence S01°54’29”W, 60.16’ to a point, thence N89°58’42”W, 333.28’ to a point, thence S00°14’57”E, 180.26’ to a point, thence S89°58’50”W, 14.00’ to the point of beginning, being 0.54 acres (23,490 square feet), and being

a portion of Tract 2 as shown on Plat Book 72 Page 481 and being a portion of PIN: 166800-74-6900.

TRACT 6
PIN: 166800-74-2476
Johnston County Tax ID: 05A01016

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at an iron pipe on the eastern right-of-way of Wildwood Drive, said pipe being the northwest corner of Lot 29 as shown on Plat Book 7 Page 213, and being the property of Clayton Village Center, LLC, Deed Book 5716 Page 50, thence leaving said right-of-way, N89°58'50"E, 342.58' to an iron pipe, thence S01°28'56"W, 60.00' to a point, thence, S89°58'44"W, 342.17' to a point on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N01°04'55"E, 60.00' to the point of beginning, being 0.47 acres (20,537 square feet), and being Lot 29 as shown on Plat Book 7 Page 213 and being all of PIN: 166800-74-2476.

TRACT 7
PIN: 166800-74-2470
Johnston County Tax ID: 05A01018

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a point on the eastern right-of-way of Wildwood Drive, said point being the northwest corner of Lot 30 as shown on Plat Book 7 Page 213, and being the property of Clayton Village Center, LLC, Deed Book 5716 Page 50, thence leaving said right-of-way, N89°58'44"E, 342.17' to a point, thence S01°28'56"W, 60.00' to an iron pipe, thence S89°58'38"W, 341.74' to an iron pipe on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N01°04'55"E, 60.00' to the point of beginning, being 0.47 acres (20,512 square feet), and being Lot 30 as shown on Plat Book 7 Page 213 and being all of PIN: 166800-74-2470.

SECTION 3. Notice of the public hearing shall be published in the Johnstonian News, a newspaper having general circulation in the Town of Clayton, at least ten days prior to the date of the public hearing.

Duly adopted this 18th day of August 2025, while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Asst.

Acting Town Clerk

DESCRIPTION/ADDRESS:

Pin #s:	166811-75-4247, 166811-75-2127, 166811-75-2111, 166800-74-6900, 166800-74-2476, and 166800-74-2470
Tax #s:	05A01006, 05A01009, 05A01009A, 05A01013, 05A01016, and 05A01018
Location:	Located on the southerly side of Clayton Blvd, east of the intersection of Buckhorn Branch Park, west of the intersection Hardee Lane, and easterly of Wildwood Drive with unassigned addresses.
Acreage:	A total of approximately 2.89 acres to be annexed
Owner:	Clayton Corner, LLC and Clayton Village Center, LLC

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

PETITION FOR VOLUNTARY ANNEXATION

VOLUNTARY ANNEXATION: Upon receipt of a valid petition signed by all the owners of real property in the area described therein, the Town may annex an area either contiguous or not contiguous to its primary corporate limits when the area meets the standards set out under North Carolina General Statutes 160A-31 and 160A-58.1.

Applications are accepted on a rolling basis and can be submitted to the Town of Clayton Planning Department.

www.ClaytonNC.org/Fees

Applicable Fees: Development Submittal Fees Annexation

PROCESS:

Review by Staff: The Planning, Engineering and Public Works Departments review the annexation submission. Comments will be sent to the applicant. There is an initial 15 business day review cycle with 3 Council hearing meetings. Expect an estimated minimum of 2-3 months for review/approval.

Annexation Plat and Legal Description (Metes & Bounds) Submission: The plat and a legal description (metes and bounds) must be submitted with the application and review fee.

Is the proposed land for annexation located outside the Claytex Fire District? ____ Yes X ____ No

**If the proposed land for annexation is located outside of the Claytex Fire District, the Fire District in which the land is located must be notified by the Town, and a payment from the applicant to the Town covering the proportional share of Fire District Debt of the land (as determined by the Fire District) will be required to be made. This process will increase the timeline for approval of these annexations.*

Legal Advertisement: A legal advertisement will be published no more than 25 days and no less than 10 days prior to the date of the public hearing.

Town Council Meeting: The Town Council will pass a resolution directing the Town Clerk to investigate the annexation petition. The Town Clerk will present to the Town Council a Certificate of Sufficiency indicating that the annexation petition is complete. A resolution setting the date of the public hearing is then approved. These first two actions generally occur during the Consent Agenda item on 2 consecutive Town Council meetings.

Public Hearing/Town Council Meeting: The Town Council will either adopt or deny an ordinance to extend the corporate limits of the Town of Clayton. The Public Hearing is generally held during the 3rd Council meeting, following approval of the Certificated Sufficiency and Resolution setting the Public Hearing date.

Recordation: If the annexation is approved by the Town Council, the applicant is required to submit one (1) Mylar annexation plat to the Planning Department for signature. The Annexation Plat shall be recorded at the appropriate county Register of Deeds.

Name of Project: Clayton Village **Date:** 04/01/2025

Applicant Name: RiverWILD **Phone:** (919) 901-3178 **Email:** Dave@StayWILD.com

Petition for Voluntary Annexation Application

1. **Application Type:** ☐ Individual ☐ Corporation ☒ LLC ☐ Partnership

2. **The proposed annexation will be:** ☒ Contiguous Annexation ☐ Non-Contiguous Annexation

Property Information

To the Town Council of the Town of Clayton, North Carolina:

1. I/We the undersigned owner(s)* of real property respectfully request that the area described in Paragraph 2 below be annexed to the Town of Clayton, North Carolina.

   *If the owner of real property is a corporation or religious entity, attach a copy of the articles of incorporation describing who is/are authorized to sign the petition.

2. The area to be annexed is [X] contiguous, [ ] non-contiguous to the Town of Clayton, North Carolina and the boundaries of such territory are as provided in the boundary plat 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.

4. Attached is a statement of the schedule for full development of the property to be annexed, which includes the type, number, and estimated value of planned improvements, if applicable.

   Total Acreage to be annexed: 2.89 Existing Housing Units: 3

   Population of acreage to be annexed: 0 Fire District: Claytex

   Existing Zoning District*: CZ-MU, RLL, CRM Proposed Town Zoning District*: CZM

   County Recorded Plat Book and Page #: PB 94 PG 255

   Reason for petitioner to annex: ____ Receive Town Services ___X___ Other (please specify): Voluntary

5. **I/We** acknowledge that any zoning vested rights acquired pursuant to G.S. 160A-385.1 or G.S. 153A-344.1 must be declared and identified on this petition. I/We further acknowledge that failure to declare such rights on this petition shall result in the termination of vested rights previously acquired for the property. (If zoning vested rights are claimed, indicate on the following page, and attach proof.)

FOR OFFICE USE ONLY

Date Received:_____ Amount Paid:_____ Petition Number: _____

This page must be notarized prior to submitting to the Town for review

Complete ONLY if applying for an individual annexation and if property is owned by individual (s):

_____ Please Print

_____ Signature

_____ Please Print

_____ Signature

Complete ONLY if applying for a Corporation Annexation:

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 ____ day of _____, 20____.

Corporate Name: _____

SEAL

By: _____ (Signature)

Attest: _____ Secretary (Signature)

Complete ONLY if applying for a Limited Liability Company Annexation:

In witness whereof, Clayton Village Center a limited liability company, caused this instrument to be executed in its name by a member/manager pursuant to authority duly given, this 26th day of March, 2025.

Name of Limited Liability Company: Clayton Village Center, LLC

By: _____ Signature of Member/Manager

Complete ONLY if applying for a Partnership Annexation:

In witness whereof, _____ a partnership, caused this instrument to be executed in its name by a member/manager pursuant to authority duly given, this ____ day of _____, 20____.

Name of Partnership: _____

By: _____ Signature of General Partner

By: _____

By: _____ Signature of General Partner

By: _____

STATE OF NORTH CAROLINA
COUNTY OF JOHNSTON

Sworn and subscribed before me, Alyson M. Burr, a Notary Public for the above State and County, this 26th day of, March, 2025.

SEAL — ALYSON M BURR NOTARY PUBLIC JOHNSTON COUNTY, N.C. MY COMMISSION EXPIRES 01/22/2030

_____ Notary Public

My Commission Expires: January 22 2030

This page must be notarized prior to submitting to the Town for review

Complete ONLY if applying for an individual annexation and if property is owned by individual (s):

_____ Please Print

_____ Signature

_____ Please Print

_____ Signature

Complete ONLY if applying for a Corporation Annexation:

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 ____ day of _____, 20____.

SEAL

Corporate Name: _____

By: _____ (Signature)

Attest: _____ Secretary (Signature)

Complete ONLY if applying for a Limited Liability Company Annexation:

In witness whereof, Clayton Corner a limited liability company, caused this instrument to be executed in its name by a member/manager pursuant to authority duly given, this 26th day of March 2025.

Name of Limited Liability Company: Clayton Corner, LLC

By: _____ Signature of Member/Manager

Complete ONLY if applying for a Partnership Annexation:

In witness whereof, _____ a partnership, caused this instrument to be executed in its name by a member/manager pursuant to authority duly given, this ____ day of _____, 20____.

Name of Partnership: _____

By: _____ Signature of General Partner

By: _____

By: _____ Signature of General Partner

By: _____

STATE OF NORTH CAROLINA
COUNTY OF JOHNSTON

Sworn and subscribed before me, Alyson M. Burr, a Notary Public for the above State and County, this 26th day of, March, 2025.

ALYSON M BURR NOTARY PUBLIC JOHNSTON COUNTY, N.C. SEAL MY COMMISSION EXPIRES 01/22/2030

June 2024

_____ Notary Public

My Commission Expires: January 22 2030

Voluntary Annexation Plat Checklist

#	Required Plat Items
1.	Fully dimensioned by metes and bounds, and the location of intersecting boundary lines of the existing town limits, labeled and distinctly marked. Include full right-of-way if the area on both sides is or will be in the corporate limits.
2.	Any utility easements with metes and bounds.
3.	Accurate locations and descriptions of all monuments, markers and control points.
4.	Ultimate right-of-way widths on all streets.
5.	Entitle "ANNEXATION MAP FOR THE TOWN OF CLAYTON" OR "SATELLITE ANNEXATION MAP FOR THE TOWN OF CLAYTON," as appropriate.
6.	Name of property owner(s).
7.	Name, seal, and registration of Professionally Licensed Surveyor (PLS).
8.	Date of the survey and map preparation; a north arrow indicating whether the index is true magnetic North Carolina grid (NAD 83 of NAD 27) or deed; graphic scale; and declination.
9.	Names of the township, county, and state.
10.	A detailed vicinity map.
11.	Include address of property if assigned.
12.	Show all contiguous or non-contiguous town limits.
13.	Leave a 2-inch by 2-inch space for the county Register of Deeds stamp on the plat. All final plats must be stamped and signed before they can be accepted by the Town.

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Clayton Village Center **Address or PIN #:** 166811-75-4247

AGENT/APPLICANT INFORMATION:

RiverWILD, LLC
(Name - type, print clearly)

114 W. Main Street
(Address)
Clayton, NC 27520
(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (***list applicable requests***):

ALL Annexation & Rezoning Processes
ALL Entitlement Applications & Processes
ALL Construction Drawing Applications & Processing

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

Abdul Kamalpasha, Managing Member of Clayton Corner, LLC
(Name - type, print clearly)

(Owner's Signature)

109 Elway Drive
(Address)

Clayton, NC 27527
(City, State, Zip)

STATE OF North Carolina
COUNTY OF Johnston

Sworn and subscribed before me Alyson M Burr, a Notary Public for the above State and County, this the 26th day of March, 2025.

SEAL

ALYSON M BURR NOTARY PUBLIC JOHNSTON COUNTY, N.C. MY COMMISSION EXPIRES 01/22/2030

Notary Public

My Commission Expires: January 22 2030

July 2018

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Clayton Village Center **Address or PIN #:** 166800-74-6900, 166811-75-2127, 166811-75-2111, 166800-74-2476, 166800-74-2470

AGENT/APPLICANT INFORMATION:

RiverWILD, LLC
(Name - type, print clearly)

114 W. Main Street
(Address)
Clayton, NC 27520
(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (***list applicable requests***):

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ALL Entitlement Applications & Processes
ALL Construction Drawing Applications & Processing

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

Abdul Kamalpasha, Managing Member of Clayton Village Center, LLC
(Name - type, print clearly)

(Owner's Signature)

109 Elway Drive
(Address)
Clayton, NC 27527
(City, State, Zip)

STATE OF North Carolina
COUNTY OF Johnston

Sworn and subscribed before me Alyson M Burr, a Notary Public for the above State and County, this the 26th day of January, 2025.

SEAL

ALYSON M BURR NOTARY PUBLIC JOHNSTON COUNTY, N.C. MY COMMISSION EXPIRES 01/22/2030

Notary Public

My Commission Expires: January 22 2030

July 2018

CLAYTON VILLAGE
ANNEXATION REQUEST

TRACT 1
PIN: 166811-75-4247 (portion of)

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a iron pipe, said pipe being the northwest corner of Clayton Corner LLC, Deed Book 5711 Page 510, thence N50°41'03"E, 110.28' to a point, thence S71°29'20"E, 87.17' to an iron rebar, thence S50°36'15"W, 56.44' to an iron pipe, thence S50°50'48"W, 173.74' to an iron pipe, thence N05°43'45"E, 12.47' to a point, thence N05°43'45"E, 60.00' to an iron pipe, thence N05°43'45"E, 31.37' to the point of beginning, being 0.29 acres (12,548 square feet), and being a portion of Clayton Corner, LLC as shown in Deed Book 5711 Page 510, and being a portion of PIN: 166811-75-4247.

TRACT 2
PIN: 166811-75-2127

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at an iron pipe on the eastern right-of-way of Wildwood Drive, said pipe being the northwest corner of Clayton Village Center, LLC, Deed Book 5716 Page 48, and being the northwest corner of Lot 17 as shown on Plat Book 7 Page 213, thence S89°53'05"E, 242.58' to an iron pipe, thence S05°43'45"W, 60.00' to a point, thence N89°57'16"W, 236.71' to a point on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N00°06'46"E, 60.00' to the point of beginning, being 0.33 acres (14,344 square feet), and being all of Lot 17 as shown on Plat Book 7 Page 213, and being all of PIN: 166811-75-2127.

TRACT 3
PIN: 166811-75-2111

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a point on the eastern right-of-way of Wildwood Drive, said point being the northwest corner of Clayton Village Center, LLC, Deed Book 5716 Page 48, and being the northwest corner of Lot 18 as shown on Plat Book 7 Page 213, thence leaving said right-of-way, S89°57'16"E, 236.71' to a point, thence S05°43'45"W, 12.47' to an iron pipe, thence S42°37'59"E, 64.73' to a point, thence N89°57'22"W, 279.42' to a point on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N00°06'46"E, 60.00' to the point of beginning, being 0.35 acres (15,182 square feet), and being all of Lot 18 as shown on Plat Book 7 Page 213, and being all of PIN: 166811-75-2111.

TRACT 4

PIN: 166800-74-6900 (portion of)

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a point on the eastern right-of-way of Wildwood Drive, said point being the northwest corner of Clayton Village Center, LLC, Deed Book 5334 Page 267, and being the northwest corner of Tract 2 as shown on Plat Book 72 Page 481, thence S89°57'22"E, 279.42' to a point, thence S42°37'59"E, 81.61' to a point, thence N89°57'22"W, 327.82' to a point, thence S00°06'46"W, 121.30' to a point, thence S89°56'46"W, 7.00' to an iron rebar on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N00°06'46"E, 181.31' to the point of beginning, being 0.44 acres (19,276 square feet), and being a portion of Tract 2 as shown on Plat Book 72 Page 481 and being a portion of PIN: 166800-74-6900.

TRACT 5

PIN: 166800-74-6900 (portion of)

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a point on the eastern right-of-way of Wildwood Drive, said point being the southwest corner of Clayton Village Center, LLC, Deed Book 5334 Page 267, and being the southwest corner of Tract 2 as shown on Plat Book 72 Page 481, thence along said right-of-way, N00°14'57"W, 180.27' to an iron rebar, thence N00°48'49"W, 60.13' to an iron pipe, thence leaving said right-of-way, S89°58'42"E, 350.13' to an iron pipe, thence S01°54'29"W, 60.16' to a point, thence N89°58'42"W, 333.28' to a point, thence S00°14'57"E, 180.26' to a point, thence S89°58'50"W, 14.00' to the point of beginning, being 0.54 acres (23,490 square feet), and being a portion of Tract 2 as shown on Plat Book 72 Page 481 and being a portion of PIN: 166800-74-6900.

TRACT 6

PIN: 166800-74-2476

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at an iron pipe on the eastern right-of-way of Wildwood Drive, said pipe being the northwest corner of Lot 29 as shown on Plat Book 7 Page 213, and being the property of Clayton Village Center, LLC, Deed Book 5716 Page 50, thence leaving said right-of-way, N89°58'50"E, 342.58' to an iron pipe, thence S01°28'56"W, 60.00' to a point, thence, S89°58'44"W, 342.17' to a point on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N01°04'55"E, 60.00' to the point of beginning, being 0.47 acres (20,537 square feet), and being Lot 29 as shown on Plat Book 7 Page 213 and being all of PIN: 166800-74-2476.

TRACT 7

PIN: 166800-74-2470

Lying and being in Clayton Township of Johnston County, and being more particularly described as follows: Beginning at a point on the eastern right-of-way of Wildwood Drive, said point being the northwest corner of Lot 30 as shown on Plat Book 7 Page 213, and being the property of Clayton Village Center, LLC, Deed Book 5716 Page 50, thence leaving said right-of-way, N89°58'44"E, 342.17' to a point, thence S01°28'56"W, 60.00' to an iron pipe, thence S89°58'38"W, 341.74' to an iron pipe on the eastern right-of-way of Wildwood Drive, thence along said right-of-way, N01°04'55"E, 60.00' to the point of beginning, being 0.47 acres (20,512 square feet), and being Lot 30 as shown on Plat Book 7 Page 213 and being all of PIN: 166800-74-2470.

NOTES

- AREAS COMPUTED BY COORDINATE CALCULATIONS
- ALL DISTANCES SHOWN ARE HORIZONTAL, UNLESS NOTED OTHERWISE.
- ALL RIGHTS-OF-WAY ARE PUBLIC UNLESS NOTED OTHERWISE.
- THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AREA FEMA FLOOD PANEL#3720166800K, DATED 6/20/2018.
- THERE ARE NO CEMETERIES VISIBLE.
- THIS PROPERTY IS SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS, RESTRICTIVE COVENANTS AND ORDINANCES.
- A TITLE REPORT HAS ___ HAS NOT _X_ BEEN SUPPLIED FOR THIS PROPERTY.

NOTE:

EXISTING CORPORATE LIMITS SHOWN ON THIS PLAT ARE TAKEN FROM JOHNSTON COUNTY GIS. BOUNDARY LINES ARE FROM AN EXISTING SURVEY.

STREET ADDRESS	CLAYTON BOULEVARD & WILDWOOD DRIVE	
NC PIN:	166800-74-6900	166811-75-2111
	166811-75-4247	166800-74-2476
	166811-75-2127	166800-74-2470

OWNER/DEVELOPER: CLAYTON CORNER, LLC (166811-75-4247)
109 ELWAY DRIVE
CLAYTON, NC. 27527

CLAYTON VILLAGE CENTER, LLC 166800-74-6900
109 ELWAY DRIVE 166811-75-2127
CLAYTON, NC. 27527 166811-75-2111
166800-74-2476
166800-74-2470

SITE DATA
(SITE IS WITHIN THE ETJ LIMITS OF THE TOWN OF CLAYTON)
TOTAL AREA 12.39 ACRES

EXISTING CORPORATE LIMITS 9.50 ACRES

PROPOSED CORPORATE LIMITS 2.89 ACRES

TRACT 1 0.29 ACRES
TRACT 2 0.33 ACRES
TRACT 3 0.35 ACRES
TRACT 4 0.44 ACRES
TRACT 5 0.54 ACRES
TRACT 6 0.47 ACRES
TRACT 7 0.47 ACRES

ANNEXATION TABLE	
NC PIN	ANNEXATION AREA
166800-74-6900	0.98 ACRES
166811-75-4247	0.29 ACRES
166811-75-2127	0.33 ACRES
166811-75-2111	0.35 ACRES
166800-74-2476	0.47 ACRES
166800-74-2470	0.47 ACRES

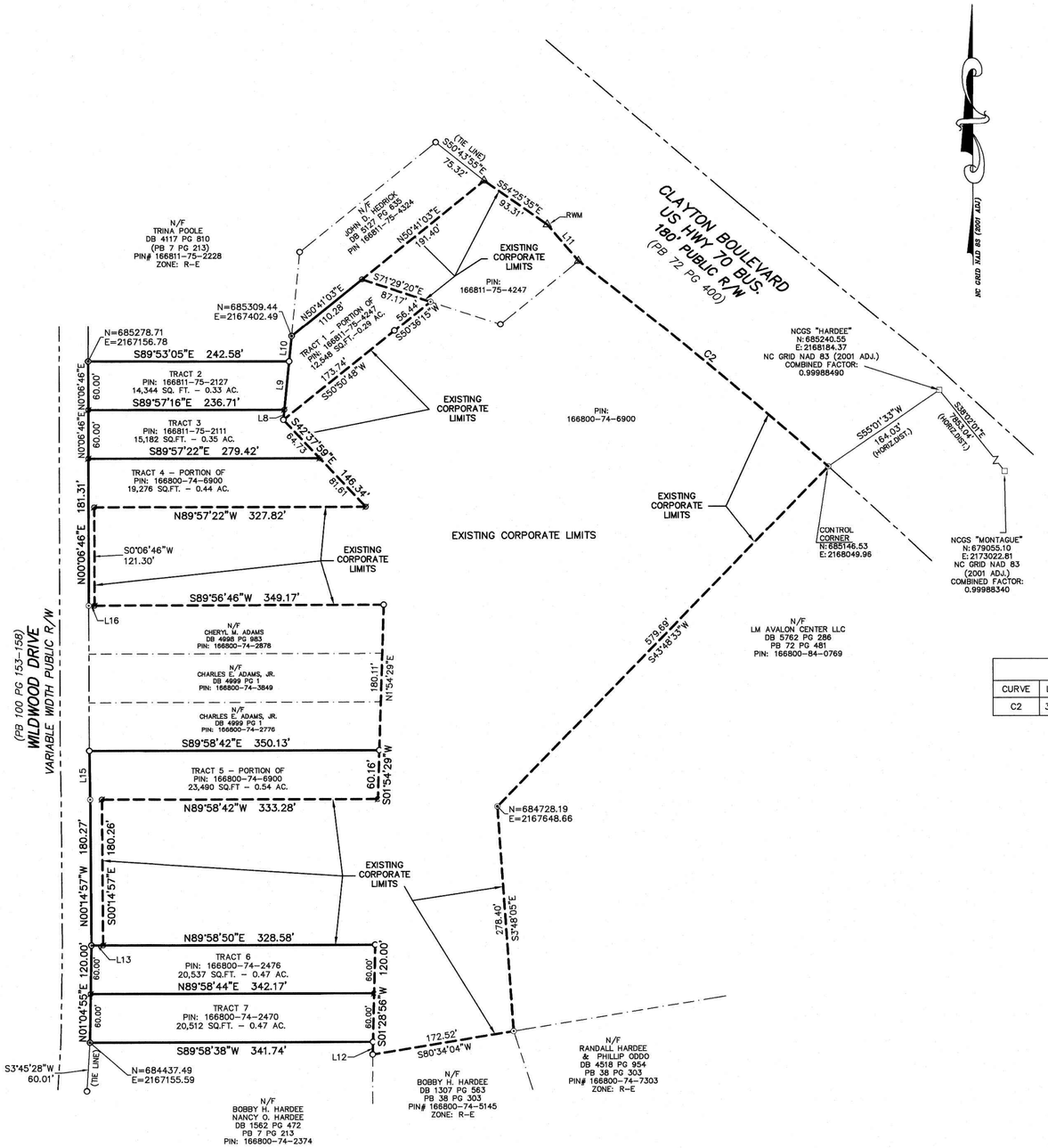
REFERENCES:
DEED BOOK 5334 PAGE 267 PLAT BOOK 62 PAGE 421
DEED BOOK 5711 PAGE 510 PLAT BOOK 7 PAGE 213
DEED BOOK 5716 PAGE 48 PLAT BOOK 38 PAGE 303
DEED BOOK 5716 PAGE 50 PLAT BOOK 72 PAGE 400
DEED BOOK 5127 PAGE 635
PLAT BOOK 72 PAGE 481
UNRECORDED PLAT BY JIMMY C. BARBOUR, PLS ENTITLED "SURVEY FOR LESLIE JOHNSON", SIGNED ON SEPTEMBER 25, 2017.

NORTH CAROLINA PROFESSIONAL SEAL L-3788 LAND SURVEYOR WILLIAM A. BARTLETT
7/14/2025

I, William A. Bartlett, certify that this survey is of an existing parcel or parcels of land and does not create a new street or change an existing street.

I, William A. Bartlett, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description recorded in Book 5334, Page 267, Book 5711, Page 510, Book 5716, Page 48, & Book 5716, Page 50); that the boundaries not surveyed are clearly indicated as dashed lines, & drawn from information found in Book As Shown, Page On Plat; that the ratio of precision or positional accuracy as calculated is 1/ 10,000+; that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, license number and seal this 14 day of July, A.D., 2025.

Professional Land Surveyor L-3788



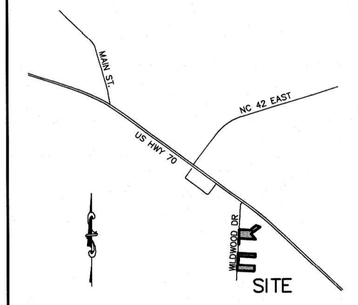
GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

LOCATION: CLAYTON BOULEVARD & WILDWOOD DR.
CLAYTON, NC
OWNERS: CLAYTON CORNER LLC
OWNERS: CLAYTON VILLAGE CENTER LLC

ACREAGE: 2.89 ACRES TOTAL



LOCATION MAP
NO SCALE

LEGEND

- □ NCGS GRID MONUMENT FOUND
- O IRON PIPE FOUND (IPF)
- ⊙ IRON REBAR FOUND (IRF)
- △ NCDOT R/W MONUMENT FOUND (RWM)
- ● IRON PIPE SET (IPS)
- ⌀ COMPUTED POINT

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHD BRG	CHORD
C2	393.927	5280.56	4°16'27"	S49°42'07"E	393.84

Line Table		
Line #	Length	Direction
L8	12.47	N05°43'45"E
L9	60.00	N05°43'45"E
L10	31.37	N05°43'45"E
L11	58.81	S40°00'05"E
L12	15.50	N01°28'02"E
L13	14.00	S89°58'50"W
L15	60.13	N00°48'49"W
L16	7.00	S89°56'46"W

PROPERTY OF
CLAYTON CORNER, LLC
and
CLAYTON VILLAGE CENTER, LLC

BARTLETT ENGINEERING & SURVEYING, PC

BARTLETT
ENGINEERING & SURVEYING, PC
1906 NASH STREET NORTH
WILSON, N.C. 27893-1726
License No. C-1551
TELE: (252) 399-0704
FAX: (252) 399-0804
www.bartletteng.com

DATE: APRIL 2025	SURVEY BY: DAB/JEB	PROJECT: 18421RP2
SCALE: 1"=100'	DRAWN BY: TRB/CEP	
REVISIONS TOWN OF CLAYTON COMMENTS 6/04/2025; TOWN OF CLAYTON COMMENTS 6/10/2025; TOWN OF CLAYTON COMMENTS 7/14/2025		CODE: CLAVIL; DWG FILE: 18421AX2

ANNEXATION PLAT FOR

TOWN OF CLAYTON

CLAYTON TWSP JOHNSTON COUNTY
NORTH CAROLINA ZONE: CZM

P:_CADD_LANDPROJECTS\CLAVIL\18421\DWG\18421AX2.DWG 7/14/2025 11:35:06 AM

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	CONSENT AGENDA

Item Title

Resolution To Accept Streets into The Town of Clayton Street System for Maintenance – One Year Warranty - Carolina Overlook Phase 1 F, G, K

Presenter(s)

Daniel Buckman, Engineering Technician

Suggested Action

Place on Consent Agenda - Adoption of Resolution #2025-46

Strategic Priorities Alignment

☐ Vibrant Downtown	☐ Desirable Amenities and Spaces	☒ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☐ Diversified Economic Development	☐ Community Outreach and Engagement	☐ Public Safety

Public Hearing: No

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Special Mailing
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey
- ☒ None Required

Background/History

Streets and rights-of-way are required to be designed and built according to the Town of Clayton Manual of Standards, Specifications, and Design. The subject streets have been verified through inspections to have been installed per the Town's Manual of Standards, Specifications, and Design. A final inspection was performed by Engineering staff on May 27, 2025 and a one-year warranty period for the subject streets is set to expire on May 27, 2026. Engineering staff recommends final acceptance of the subject streets. Upon final acceptance, the subject streets are eligible for funding through NCDOT's Powell Bill Program.

Funding Source

N/A

Corresponding Documentation

Carolina Overlook Ph. 1 F,G,K Street Resolution FINAL

Submitted By: Daniel Buckman, Engineering

Reviewed By:

Michael Worner, Senior Engineering Tech.	Approved - Jun 17 2025
Courtney Tanner, Deputy Town Manager	Approved - Aug 13 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

Resolution # 2025-46

Resolution To Accept Streets into The Town of Clayton Street System for Maintenance – One Year Warranty- Carolina Overlook Phase 1 F, G, K

WHEREAS, North Carolina General Statute 160A-296 and related case law grants municipalities general authority and control over all public streets, sidewalks, alleys, bridges, and other ways of public passage within its corporate limits except to the extent that authority and control over certain streets and bridges is vested in the Board of Transportation; and

WHEREAS, streets and right-of-way are required to be designed and built according to the Town of Clayton Manual of Standards, Specifications and Design; and

WHEREAS, Town of Clayton Engineering staff inspected the street segments listed below on May 27th, 2025, and recommends acceptance by Town Council for maintenance; and

WHEREAS, the street segments listed below will be placed under a warranty period for one-year to monitor for construction deficiencies, such warranty period expiring on May 27, 2026; and

WHEREAS, prior to expiration of the one-year warranty period, Town of Clayton Engineering staff will perform a final inspection and notify the developer to correct all deficient items (if any); and

WHEREAS, upon correction of all deficient items (if any), the Town of Clayton Engineering staff will issue a final acceptance notice to the developer; and

WHEREAS, approval by the Town of Clayton Town Council is necessary for eligibility to receive funding from the NCDOT's Powell Bill Program;

NOW, THEREFORE, BE IT RESOLVED that the Town Council of the Town of Clayton, North Carolina accept this list of streets and right-of-way into the Town of Clayton Street System

SUBDIVISION	STREET NAME	BEGINNING DESCRIPTION	END DESCRIPTION	LENGTH
Carolina Overlook Ph. 1 F, G, K	Whirlaway St.	N. Brookhollow Way	Dead-end	.08
Carolina Overlook Ph. 1 F, G, K	Shadowbrook Trl.	Whirlaway St.	Cul-de-sac	.11
Carolina Overlook Ph. 1 F, G, K	War Admiral Dr.	Steeplechase Blvd.	Secretariat Dr.	.12
Carolina Overlook Ph. 1 F, G, K	War Admiral Dr	Steeplechase Blvd.	Cul-de-sac	.13
Carolina Overlook Ph. 1 F, G, K	Secretariat Dr.	Steeplechase Blvd.	Cul-de-sac	.16
			Total:	.60 mi

Duly adopted this on the 18th day of August 2025.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder
Acting Town Clerk

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	CONSENT AGENDA

Item Title

Resolution To Accept Streets into The Town of Clayton Street System for Maintenance –One-Year Warranty- Carolina Overlook Phases 1A, 1B, 1C, 1D, 1E, 1J & 1I

Presenter(s)

Daniel Buckman, Engineering Technician

Suggested Action

Place on Consent Agenda

Strategic Priorities Alignment

Vibrant Downtown	Desirable Amenities and Spaces	Sustainable Infrastructure	Mobility, Transportation, and Transit	Diversified Economic Development	Community Outreach and Engagement	Public Safety
☐	☐	☒	☐	☐	☐	☐

Public Hearing: No

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Special Mailing
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey
- ☒ None Required

Summary

Streets and rights-of-way are required to be designed and built according to the Town of Clayton Manual of Standards, Specifications, and Design. The subject streets have been verified through inspections to have been installed per the Town's Manual of Standards, Specifications, and Design. A final inspection was performed by Engineering staff on May 27, 2025 and a one-year warranty period for the subject streets is set to expire on May 27, 2026. Engineering staff recommends final acceptance of the subject streets. Upon final acceptance, the subject streets are eligible for funding through NCDOT's Powell Bill Program. Note: Street trees will be planted during planting season, October thru March and will be covered under performance bond.

Funding Source

N/A

Corresponding Documentation

Carolina Overlook Ph. 1 1A,1B,1C,1D,1E,1J & 1I Street warranty Resolution FINAL

Submitted By: Daniel Buckman, Engineering

Reviewed By:

Michael Worner, Senior Engineering Tech.	Approved - Jun 18 2025
Courtney Tanner, Deputy Town Manager	Approved - Aug 13 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

Resolution # 2025-47

Resolution To Accept Streets into The Town of Clayton Street System for Maintenance –One-Year Warranty- Carolina Overlook Phases 1A, 1B, 1C, 1D, 1E, 1J & 1I

WHEREAS, North Carolina General Statute 160A-296 and related case law grants municipalities general authority and control over all public streets, sidewalks, alleys, bridges, and other ways of public passage within its corporate limits except to the extent that authority and control over certain streets and bridges is vested in the Board of Transportation; and

WHEREAS, streets and right-of-way are required to be designed and built according to the Town of Clayton Manual of Standards, Specifications and Design; and

WHEREAS, Town of Clayton Engineering staff has inspected the street segments listed below on May 27, 2025, recommends acceptance by Town Council for maintenance by the Town; and

WHEREAS, the street segments listed below will be placed under a warranty period for one year to monitor for construction deficiencies, such warranty period expiring on May 27, 2026; and

WHEREAS, prior to expiration of the one-year warranty period, Town of Clayton Engineering staff will perform a final inspection and notify the developer to correct all deficient items (if any); and

WHEREAS, upon correction of all deficient items (if any), the Town of Clayton Engineering staff will issue a final acceptance notice to the developer; and

WHEREAS, approval by the Town of Clayton Town Council is necessary for eligibility to receive funding from the NCDOT's Powell Bill Program;

NOW, THEREFORE, BE IT RESOLVED that the Town Council of the Town of Clayton, North Carolina accept this list of streets and right-of-way into the Town of Clayton Street System.

SUBDIVISION	STREET NAME	BEGINNING DESCRIPTION	END DESCRIPTION	LENGTH
Carolina Overlook Phases 1A, 1B, 1C, 1D, 1E, 1J & 1I	Steeplechase Blvd.	Oneil St.	Phase Line ends 150 LF South of Jockey Club Ln.	0.71
Carolina Overlook Phases 1A, 1B, 1C, 1D, 1E, 1J & 1I	Carolina Overlook Way	Covered Bridge Rd.	Steeplechase Blvd.	0.09
Carolina Overlook Phases 1A, 1B, 1C, 1D, 1E, 1J & 1I	Whirlaway Street	Brookhollow Way	Whirlaway St. Cul-de-sac	0.39
Carolina Overlook Phases 1A, 1B, 1C, 1D, 1E, 1J & 1I	Brookhollow Way	Whirlaway St. Cul-de-sac	Brookhollow Way Cul-de-sac	0.33
Carolina Overlook Phases 1A, 1B, 1C, 1D, 1E, 1J & 1I	Gallant Fox Ln.	Steeplechase Blvd.	Gallant Fox Ln. Cul-de-sac	0.09
			TOTAL	1.61 mi

Duly adopted this the 18th day of August 2025

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder
Acting Town Clerk

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	CONSENT AGENDA

Item Title

Advisory Board Member Removal

Presenter(s)

Heidi Holland, Town Clerk

Suggested Action

Place on Consent Agenda

Strategic Priorities Alignment

Vibrant Downtown	Desirable Amenities and Spaces	Sustainable Infrastructure	Mobility, Transportation, and Transit	Diversified Economic Development	Community Outreach and Engagement	Public Safety
☐	☐	☐	☐	☐	☐	☐

Public Hearing: No

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Special Mailing
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey
- ☐ None Required

Summary

In accordance with the advisory board's adopted by-laws, which require members to actively participate and attend scheduled meetings, I am recommending the removal of Rich Maida from the Board of Adjustment.

Since his appointment in December 2024, Mr. Maida has not attended any meetings or responded to multiple outreach attempts. Despite ample opportunity to engage or provide notice of any inability to serve, no response has been received. Communication efforts have included emails, phone calls, and mailed letters.

Due to Mr. Maida's continued absence and lack of response to multiple outreach efforts, I respectfully recommend that the Council consider removal from the Board of Adjustment in accordance with the Board's governing procedures.

A vacancy will be declared, and staff will proceed with efforts to fill the position in accordance with our standard appointment process.

Funding Source

N/A

Submitted By: Heidi Holland, Clerks

Reviewed By:

Heidi Holland, Town Clerk	Approved - Aug 07 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	CONSENT AGENDA

Item Title

Amendment to the Code of Ordinances, Chapter 95 Fire Prevention Update

Presenter(s)

Michael Tatum, Fire Marshal

Suggested Action

Place on Consent Agenda - Adoption of Ordinance #2025-08-06

Strategic Priorities Alignment

☐ Vibrant Downtown	☐ Desirable Amenities and Spaces	☐ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☐ Diversified Economic Development	☐ Community Outreach and Engagement	☒ Public Safety

Public Hearing: No

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Special Mailing
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey
- ☒ None Required

Summary

Update to Chapter 95 Fire Prevention Ordinance with addition of purpose and scope, formal adoption of NC Fire Code optional permit for open burning, required permits, inspections, hazardous conditions, penalties, appeals, KnoxBox requirements, fire alarm systems requirements, hydrants/water supply, and hazardous materials and substance mitigation.

Background/History

Update to the previously adopted ordinance as presented at the council work session in May 2025.

Recommendation

Recommendation of staff for council to adopt Ordinance #2025-08-06.

Funding Source

N/A

Cost

N/A

Corresponding Documentation

Clayton PFO revised 2025 FINAL. edits shown

2025-08-06 Chapter 95 Fire Prevention Update

Submitted By: David Ranes, Fire Department

Reviewed By:

David Ranes, Fire Chief	Approved - Aug 08 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

CHAPTER 95: FIRE PREVENTION

Section

Fire Prevention Code

§ 95.01 ~~Adoption~~ PURPOSE & APPLICATION

§ 95.0~~1~~2 ADOPTION

§ 95.0~~2~~3 FIRE OFFICIAL

§ 95.04 PERMITS REQUIRED

§ 95.05 INSPECTIONS

§ 95.06 PRIMARY FIRE DISTRICT

§ 95.07 ~~Open burning within Town of Clayton's town limits~~ IMMEDIATELY DANGEROUS OR HAZARDOUS CONDITIONS

§ 95.08 NOTICE OF VIOLATION; ORDER TO CORRECT

§ 95.09 PENALTIES

§ 95.10 APPEALS

§ 95.11 INSTALLATIONS OF KNOXBOX RAPID ENTRY SYSTEM

§ 95.12 ALARM COMMUNICATION SYSTEM

Open Burning

§ 95.~~07~~15 OPEN BURNING WITHIN TOWN OF CLAYTON'S TOWN LIMITS

§ 95.16 OPEN BURNING DEFINITIONS

§ 95.17 PERMISSIBLE OPEN BURNING WITH A PERMIT

§ 96.18 TRAINING

Fire Hydrants

§ 95.20 INSTALLATION SPECIFICATIONS

§ 95.~~16~~21 EXCEPTIONS

§ 95.22 HYDRANT AND FIRE PROTECTION WATER SUPPLY

Hazardous Materials and Substances Mitigation

§ 95.25. PURPOSE AND AUTHORITY

§ 95.26 DEFINITIONS

§ 95.27 FINANCIAL RESPONSIBILITY; ASSISTANCE

§ 95.28 FEES AND CHARGES

Statutory reference:

Fire protection, see G.S. §§ 160A.291 - 160A.294

FIRE PREVENTION CODE

§ 95.01. PURPOSE & APPLICATION.

The purpose of this Chapter is to prescribe regulations governing conditions hazardous to life and property from fire, explosion or exposure to hazardous materials. The provisions of this article Chapter shall apply to new and existing conditions, and to the repair, use, occupancy and maintenance of existing buildings or structures specified in the State Fire Code and the Town of Clayton Unified Development Ordinance, and to other conditions hazardous to life or property in the opinion of the Fire Chief or their designee. Nothing contained in this Chapter shall be construed as applying to the transportation of any substance shipped in compliance with regulations prescribed by state and federal law nor as applying to the military forces of the United States.

§ 95.0~~1~~2 ADOPTION AND RELATIONSHIP TO OTHER LAWS AND STANDARDS.

(A) The ~~most current edition of the~~ North Carolina State Fire Prevention Code, as amended periodically, including Appendices B, C, D, F and J, and Section 105.6.32 regarding open burning operational permits, and as adopted by the North Carolina Building Code Council, is hereby adopted by the Town for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion and is incorporated by reference as fully as though set forth herein ~~as the fire prevention code of the town to the extent this code prescribes regulations governing conditions hazardous to life and property from fire or explosion. Further~~ and of which not less than one copy ~~shall be on~~ is filed in the office of the Town Clerk. This code is hereby adopted and incorporated as fully as if set out at length herein, and the provision thereof shall be controlling within the limits of the T~~t~~own, and its exterritorial jurisdiction. ~~the town's E.T.J~~.

(B) The current edition of the North Carolina Administration and Enforcement Requirements Code, as amended, is incorporated herein by reference for the administration of the North Carolina Fire Code, including Appendices B, C, D, F, and J.

(C) In the event of a conflict between a provision of the North Carolina Fire Code and this Code of Ordinances, the Town's Unified Development Code, or the state law, then the provisions of this Code of Ordinances or state law shall take precedence over the conflicting provision and shall prevail.

(Amend. adopted 5-4-92; Am. Ord. 2018-12-04, passed 12-17-18)

§ 95.0~~2~~3 FIRE OFFICIAL.

The *Fire Official* shall be the designated authority within the T~~t~~own's ~~Inspections~~ Fire Department charged with the administration and enforcement of the Fire Prevention Code. The Fire Official shall be appointed by the Chief of the fire department on the basis of examination to

determine his qualifications, which shall include having one of the following types of certifications issued by the North Carolina Code Officials Qualification Board attesting to his qualifications to hold such position:

(A) A probationary certificate;

(B) A standard certificate;

(C) A limited certificate.

(Amend. adopted 5-4-92)

~~§ 95.03 ESTABLISHMENT OF LIMITS OF DISTRICTS IN WHICH STORAGE OF CERTAIN FLAMMABLES OR EXPLOSIVES IS RESTRICTED.~~

~~(A) The limits referred to in the Fire Prevention Code adopted in § 95.01, in which the storage of explosives and blasting agents is prohibited, are established as the entire area of the town within the corporate limits.~~

~~(B) The limits referred to in the Fire Prevention Code, in which the storage of flammable liquids in outside storage tanks is prohibited, are established as provided in the Zoning Code.~~

~~(C) The limits referred to in the Fire Prevention Code, in which new bulk plants for flammable or combustible liquids are prohibited, are established as provided in the Zoning Code.~~

~~(D) The limits referred to in the Fire Prevention Code in which bulk storage of liquified petroleum gas is restricted, are established as provided in the Zoning Code.~~

~~(Amend. adopted 5-4-92)~~

§ 95.04 PERMITS REQUIRED.

~~(A) The Fire Official shall determine and specify, after giving affected person an opportunity to be heard, any information of materials, processes, or occupancies which shall require permits in addition to those now enumerated in Chapter Four of the Fire Prevention Code.~~

~~(B) Fees for permits shall be recommended by the fire official and approved by the Town Council.~~

(Amend. adopted 5-4-92)

(A) A property owner or owner's authorized agent who intends to conduct an operation or business or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed shall first make application to the Fire Official and obtain the required permit.

(B) Permits are not transferable and any change in occupancy, operation, tenancy, or ownership shall require a new permit to be issued.

(C) Permit fees will be administered following the Town Council Approved Budget User Fee Schedule.

§ 95.05 INSPECTIONS.

In accordance with the Fire Prevention Code, fire inspections are required for all new construction, and periodic fire inspections are required for all existing buildings. One and two-family residential dwellings are exempt from this requirement. The frequency of periodic inspections for existing buildings shall be based on the following schedule and billed accordingly to the Town's adopted fee schedule:

Occupancy Classification	Inspection Frequency
Hazardous	Every Year
Institutional	Every Year
High Rise	Every Year
Assembly (Occupant Load 100 and above)	Every Year
Residential (except 1 and 2 family dwellings)	Every Year
Group Home	Every Year
Licensed Day Care	Every Year
Factory/Industrial	Every 2 Years
Educational (Except Public Schools)	Every 2 Years
Business	Every 3 Years
Mercantile	Every 3 Years
Storage	Every 3 Years
Churches and Synagogues	Every 3 Years
Assembly (<100 Occupant Load)	Every 3 Years

~~(A) One year.~~

~~Rest home facilities~~

~~Day care facilities~~

~~Family care homes~~

~~Nursing home facilities~~

~~Hazardous~~

~~Assembly (except churches)~~

~~Residential~~

~~Institutional~~

~~(B) Two year.~~

~~Industrial~~

~~Private education~~

~~(C) Three year.~~

~~Churches~~

~~Mercantile~~

~~Storage~~

(Amend. adopted 5-4-92)

§ 95.06 PRIMARY FIRE DISTRICT.

(A) In accordance with North Carolina G.S. § ~~160A-436~~160D-1128, the ~~t~~Town hereby establishes a primary fire district. The primary fire district boundaries are indicated on the town's official "Primary Fire District Map" dated June 1, 2013. The primary fire district map, as properly attested, is on file in the office of the Town Clerk and is available for inspection by the public.

(B) Within the primary fire district, no frame or wooden building or structure or addition thereto may be erected, altered, repaired, or moved (either into the district or from one place to another within the district) except in accordance with a building permit issued by the Inspections Department and approved by the Commissioner of Insurance or their designee.

(Amend. adopted 5-4-92; Am. Ord. 2013-06-13, passed 6-17-13)

§ 95.07 IMMEDIATELY DANGEROUS OR HAZARDOUS CONDITIONS

Whenever the Fire Code Official or their designee finds in any building or upon any premises dangerous conditions or materials as described below, they shall order such dangerous conditions or materials removed or remedied in such manner as the Fire Code Official may specify:

(1) Dangerous storage or unlawful amounts of combustible, flammable or explosive, or otherwise hazardous materials.

(2) Hazardous conditions arising from defective or improperly installed equipment for handling or using combustible, flammable or explosive, or otherwise hazardous materials.

(3) Dangerous accumulations of rubbish, wastepaper, boxes, shavings, or other highly combustible materials.

(4) Accumulations of dust or waste material in air conditioning or ventilation systems, or grease in kitchen or other exhaust ducts, or inadequate clearances to unprotected combustible materials from hoods, grease extractors, and ducts.

(5) Obstructions to or in fire escapes, designated access openings in exterior walls for fire department use, stairs, passageways, doors, or windows liable to interfere with the operations of the fire department or impede egress of occupants in the case of fire.

(6) Overcrowding in violation of occupancy limits established according to the State Building Code and required under the State Fire Code.

§ 95.08 NOTICE OF VIOLATION; ORDER TO CORRECT

(A) Notice Required. When the Fire Official or their designee determines that a violation of this Chapter exists or that any commercial building or structure does not have a valid permit in effect, the Fire Official shall issue a notice of violation and order to correct the violation. Such notice shall state the nature of the violation and penalty to be imposed, direct the violator how and when to pay the civil penalty, and notify the violator that failure to pay the penalty within the prescribed period of time will result in civil action.

(B) Service. Service of notice of violation and order to correct shall be made upon the owner, operator or occupant, or other person having control over the premises where the violation exists. Service shall be made by delivering a copy of the notice and order by electronic or hand delivery or by registered or certified mail, return receipt requested, sent to the owner, operator, occupant or tenant at their last known address listed in the county tax assessor's records, or by leaving a copy of the notice and order with an agent or employee of such person. If the owner, operator, occupant or tenant cannot be located on the premises, the Fire Official or their designee may effectuate service by affixing a copy of the violation notice and order prominently on the main entrance of the building where the violation exists.

(C) Where correcting the violation will require improvement to real property or may result in administrative penalties against the property owner, the property owner must be notified by mailing a copy of the notice and order to the owner's address as listed in the county tax assessor's office.

(D) Compliance with the Fire Code Official’s notice of violation and order to correct:

1. Immediate action orders. The Fire Official or their designee may issue immediate correction orders for violations of the State Fire Code that constitute an imminent hazard to life and property. Any condition listed in section 95.07 shall be deemed an imminent hazard. Failure to correct such violation within 24 hours shall result in evacuation of the building and/or institution of fire watch.

2. Other correction orders. All other correction orders issued under this Chapter for violations that do not constitute imminent hazards shall be corrected within 60 days. Failure to correct such violations within 60 days shall result in imposition of the applicable reinspection fee in the amount approved in the Budget User Fee Schedule, until all identified violations have been completely corrected, and the correction order shall so state.

3. The correction order shall also state that if the violation is not corrected within 60 days, a civil complaint for the collection of penalties and any unpaid fees owed under this article may be initiated, and that other legal proceedings including criminal prosecution may be initiated.

§ 95.09 PENALTIES

Failure to comply with the provisions of this shall constitute a class 3 misdemeanor under G.S. 160A-175 and G.S. 14-4 and will subject the offender to a fine not exceeding $500 (five hundred dollars). Additionally, the Fire Code Official or their designee may enforce the provisions of this article in civil court and seek any and all appropriate remedies authorized by G.S. 160A-175, subject to the restrictions of this section. Each day's continuing violation shall constitute a separate and distinct offense.

§ 95.10 APPEALS

(A) Any person who has been served with a notice of violation and order for correction of violations of the State Fire Code may appeal the notice and order to the State Department of Insurance, State Building Code Council within ten days from date of issuance.

(B) Any person who has been served with a notice of violation and order for correction of violations of the provisions of this article which are not violations of the State Fire Code or which relate to fees or penalties charged under this article may appeal to the Town Manager, whose decisions shall be final. Appeals must be filed within ten days from the date of issuance of the order.

§ 95.11 INSTALLATIONS OF KNOXBOX RAPID ENTRY SYSTEM

All new or newly renovated commercial buildings equipped with fire protection systems, emergency responder overage systems and/or elevators shall provide a "KnoxBox" key entry system. KnoxBoxes shall be mounted on the exterior entrance of the dedicated riser room for buildings with fire sprinkler systems. The KnoxBox shall be mounted on the wall at five feet above finished floor on the door handle side of the dedicated sprinkler riser room, fire alarm access door, or primary entry to the building. This KnoxBox shall be ordered through the KnoxBox Company web site https://www.knoxbox.com and shall be installed with proper keys before a certificate of occupancy is issued. Keys to access the facility or tenant spaces within the facility shall be provided to the Fire Department by the owner/manager or tenant.

95.12 ALARM COMMUNICATION SYSTEM

All buildings equipped with automatic sprinkler systems shall have alarm communication equipment that complies with NFPA 72. Equipment must be fully functional and reporting an

approved central receiving station (NFPA 72) before a certificate of occupancy is issued for the facility.

All new fire alarm systems shall be addressable systems. Only one fire panel per building; a fire barrier or other means of separation for this purpose shall not constitute two separate spaces requiring individual panels. Combination alarms will not be allowed within the Town Limits. For the purpose of this section, combination alarms shall include devices combining burglary and fire alarms, devices combining burglary and hold-up alarms, and devices combining burglary and trouble alarms. There must be a distinct separation in the transmittal of any specific alarm activation.

When a building is protected by an automatic sprinkler system and has a fire alarm system, the fire alarm control panel or a remote annunciator of the fire alarm control panel shall be placed in the sprinkler riser room. This control panel shall have the capability of silencing and resetting the alarm system. Adjacent to the fire alarm control panel shall be a framed zone map. Sprinkler zone nomenclature shall correspond with the zone map.

OPEN BURNING

§ 95.~~07~~15 OPEN BURNING WITHIN TOWN OF CLAYTON'S TOWN LIMITS.

(A) No person shall cause, suffer, allow or permit open burning of refuse or other combustible material within the corporate limits of the Town or its extraterritorial jurisdiction, except as may be allowed and permitted herein, under state laws, rules, regulations or orders of the state environmental management commission (department of environment, health, and natural resources).

~~In accordance with North Carolina Administrative code § 15.A NCAC 02D.1903 and .1904, certain types of open burning shall be permitted without an Air Quality Permit within the Town of Clayton's Town Limits.~~

(B) Prior to commencing any open burning activities, the appropriate permits, must be obtained and an inspection of the burning location and approval of the open burning by the Town's Fire Official must occur. All applicable permits must be on site at the time of the burn.

(C) Nothing in this provision should be interpreted as to allow open burning of any sort during an active burn ban issued by the North Carolina Forestry Service.

(Ord. 2015-09-07, passed 9-8-15)

§ 95.16 OPEN BURNING DEFINITIONS.

(A) *Nuisance* means causing physical irritation exacerbating a documented medical condition, visibility impairment, or evidence of soot or ash on property or structure other

than on the property on which the burning is done.

(B) *Open burning* means the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the atmosphere without passing through a stack, chimney, or a permitted air pollution control device. For purposes of this Chapter open burning shall not include the following so long as the burning does not create a nuisance: campfires, fires used solely for outdoor cooking, open-flame cooking devices, and the like.

(C) *Pit-burning* means a particular type of open burning using a portable combustion device that directs a plane of high velocity forced draft air through a manifold head into a pit with vertical walls in such a manner as to maintain a curtain of air over the surface of the pit and a recirculating motion of air under the curtain.

(D) *Refuse* means trash, construction materials, yard waste, and other man-made and non-vegetative materials, including synthetic materials.

§ 95.17 PERMISSIBLE OPEN BURNING WITH A PERMIT

Open burning is permissible with a permit, as long as the open burning activity does not cause a nuisance as defined in this Chapter, for the following purposes:

(1) Agricultural, forest or wildlife management practices;
(2) Disposal of materials when it is the safest and most practical method of disposal, including but not limited to material generated as a result of a natural disaster if the State Department of Environmental Health and Natural Resources (DEHNR) regional office supervisor grants permission for the burning.
(3) Fires purposely set by manufacturers of fire extinguishing materials or equipment, testing laboratories, or other persons, for the purpose of testing or developing these materials or equipment in accordance with a valid standard qualification program;
(4) Pit burning.

§ 95.18 TRAINING

A permit is not required for fires purposely set for the instruction and training of firefighting personnel, including fires at permanent firefighting training facilities, or when conducted under the supervision of or with the cooperation of one or more of the following agencies:

(a) The North Carolina Division of Forest Resources.

(b) The North Carolina Department of Insurance.

(c) North Carolina community colleges, including:

1) The North Carolina Fire College, or

2) The North Carolina Rescue College.

FIRE HYDRANTS

§ 95.20 INSTALLATION SPECIFICATIONS

Fire hydrants shall be installed in accordance with ~~town construction standards as set out below~~ the current Town of Clayton's Unified Development Ordinance, Town of Clayton's Manual of Specifications, Standards and Design and the NC Fire Code. ~~Fire hydrants shall be located so that there will be no distance greater than 500 feet from a fire hydrant to any point of the exterior of any building. Fire hydrants shall be at points approved by the Town's Fire Inspector or his designee.~~

~~(A) Fire hydrants shall be of the compression type, dry top, traffic model of cast iron and shall conform to the requirements of AWWA C502. They shall have six inch mechanical joint connections with a minimum 4½ inch main valve or larger if required by the manufacturer to meet the flow and loss requirements of AWWA C502. Connection of valve seat to drain ring shall be bronze to bronze threads. Each hydrant shall have two 2½ inch hose nozzles and one 4½ inch pumper nozzle, with washers. Barrel lengths shall be generally for 3½ foot trench, except where other lengths are necessitated by the hydrant location. The threads, operating nuts, and direction of opening shall be identical to that of existing hydrants on the system. It shall be the contractor's and manufacturer's responsibility to insure that threads, nuts, and direction of opening match existing types or are of the types desired by the owner.~~

~~(B) The hydrant barrel shall be made in two sections joined together a few inches above the ground line by a watertight coupling, or break ring, so designed that if a break occurs, it will occur at this point. Breakaway bolts are not acceptable. The ring shall be of ample strength for ordinary service, and be easily and cheaply replaceable. The valve stem shall be in two sections, joined by a special coupling at the same point as the break ring, so designed that if the hydrant is broken, the coupling will break and the valve will not be disturbed. All working parts shall be removable without disconnecting the hydrant.~~

(Ord. passed 8-16-93) Penalty, see § 10.99

1) Fire hydrants shall be required when indicated by the applicable Fire Code or when a development includes four or more proposed lots, four or more dwelling units, or nonresidential uses to be served by extension of a public water supply system. Fire hydrants shall comply with the following requirements:

a) Fire hydrants shall be located within street rights-of-way, no more than

1,000 feet apart, and no more than 500 feet from any lot or unit to be served;

b) Fire hydrants shall be located at street intersections where practical, near the turnaround of a dead-end street, and at property line intersections;

c) Water lines serving fire hydrants shall be at least six inches in diameter, or larger size, as required by the water service provider, and shall not be dead-end lines, unless no other practicable alternative exists;

d) Fire hydrants shall comply with standard hydrant design (National Standard Thread, 4½-inch steamer, two 2½- inch discharge connections, etc.);

e) Fire hydrants shall be maintained by the provider providing water to the development; and

f) Fire hydrants shall only be required in cases where the system operator is capable of supplying sufficient water pressure to operate the hydrants.

2) All fire hydrants installed under the requirements of this section shall become the sole property of the Town upon acceptance.

3) In cases where a building includes sprinklers or similar fire suppression devices, fire hydrants shall be required in accordance with the North Carolina Fire Code.

§ 95.~~16~~21 EXCEPTIONS.

(A) Where an acceptable public municipal water supply system is not available, fire hydrants will not be required.
(B) Buildings having a certificate of occupancy prior to this subchapter are exempt.
(C) One- and two-family residential buildings shall be located so that there will be no distance greater than 1,000 feet from a fire hydrant to any point of the exterior of any building.

(Ord. passed 8-16-93)

§ 95.22. HYDRANT AND FIRE PROTECTION WATER SUPPLY

Water supply systems shall be capable of supplying the required fire flow for fire protection provided to facilities, buildings or portions of buildings.

Fire flow test on fire hydrants when required for hydraulic calculations of sprinkler

systems and water flow requirements for projects.

If recent, (less than one-year-old) fire flow test information is available in the Town or County's Water Utility records in the vicinity of the desired test location, the information will be provided to the applicant at no charge.

If it is determined that a new fire flow test is needed, a request for third party testing must be submitted to the Town. Testing personnel must be qualified to provide a fire flow test of water supply and will need approval from the Engineering department.

Information provided is an indication of the water supply characteristics in the immediate area on the date and time noted. The Town and Fire Department do not guarantee that this data will be representative of the water supply characteristics at any time in the future.

The construction of private fire service mains and appurtenances shall be in accordance with NFPA 24. New systems are required to have a fire flow analysis/hydraulic modeling report of the proposed project provided to the Fire Marshal's Office and the Town's Engineering Department.

HAZARDOUS MATERIALS AND SUBSTANCES MITIGATION

§95.25. Purpose and authority.

The chief of the fire department or his designee and emergency management shall have the authority to summarily mitigate or remedy hazardous materials which are released into the environment in such a manner as to endanger the health or safety of the general public or the environment. The fire chief or his designee and emergency management shall have the authority to enter public or private property, with or without the owner's consent, to respond to such hazardous materials emergencies. The fire chief or his designee and emergency management shall determine the type, amount and quantity of equipment and personnel required to adequately abate, and remedy all hazardous materials which are emitted into the environment. This section shall not be interpreted to create a duty on the part of the Town to respond to or remedy hazardous material spills or incidents. Nothing in this section shall be construed as to prevent police from criminal investigation.

§95.26 Definitions. The following definitions shall apply in the interpretation of this article:

(A) *Emergency management* means any Town employee asked in a professional capacity to assist the fire department with hazardous material response, including but not limited to, the police department and public works department.

(B) *Having control over* means, but not be limited to, any person using, transferring, storing or transporting a hazardous material immediately prior to release of such hazardous material on to the land or into the air or the waters within the Town.

(C) *Hazardous material* means any solid, liquid or gaseous material, or the combination of thereof, which, when discharged in any quantity, may present an eminent and substantial danger or injury to the public health or welfare or to the environment.

(D) *Hazardous materials response* means the sending of fire department equipment to abate hazardous materials which due to the quantity, concentration or physical chemical or infectious characteristics endanger the health or safety of persons or the environment.

(E) *Person* includes individuals, firms, partnerships, associations, institutions, corporations, local governments and the governmental agencies.

§95.27 Financial responsibility; assistance.

(A) Any property owner and/or the person(s) exercising or having control over hazardous materials that create a hazardous materials emergency shall be held financially liable for the response, abatement, and remedial costs incurred by the Town in response thereto, including but not limited to the actual cost of materials and/or equipment used by the Town to clean up or remedy the effects of such incident. Nothing herein shall prejudice the owner or party in control of the hazardous material from seeking recovery for the charges incurred herein from another party; but regardless of rights of action against others, the owner or party in possession, whichever the case may be, shall promptly pay the charges referenced herein.

(B) The property owner and/or the person(s) exercising or having control over such hazardous materials shall assist the fire department in abatement, removal and remedial measures associated with the hazardous materials emergency. Assistance shall consist of any or all of the following:

(1) Complying with the direction of the fire department.

(2) Providing emergency response plan information for the site.

(3) Providing emergency response equipment, personnel and materials available on site.

§95.28 Fees and charges.

(A) The charges for hazardous materials emergency response incurred by the Town shall be billed at the time of the hazardous material response as follows,:

(1) Fire apparatus shall be billed at the FEMA rate;
(2) Wages of all responders shall be billed at a rate of 1.5 times;
(3) Supplies and materials shall be billed at actual cost of replacement, plus ten percent (10%).

(B) An assessment of the charges shall be in writing and delivered to the responsible party. Any charge assessed pursuant to this article shall be payable within thirty (30) days of the date of the assessment unless otherwise agreed to in writing and subject to approval by the Town Manager; provided that if the responsible party is not agreeable to this time period, the

responsible party shall have ten (10) days to appeal the decision of the director to the Town Council in writing, whereupon the matter will be placed on the agenda for the next regular Town Council meeting. The decision of the Town Council shall be final.

(C) Any charge not paid within the required time period shall be a lien upon the land or premises where the abatement took place, and shall be collected as unpaid taxes pursuant to the authority of G.S. 160A-193. All reasonable attorneys fees and costs of collection shall be added to charges not paid within the required time period.

(D) The authority to recover costs under this section shall include costs incurred on calls for service either within or outside of the Town limits of the Town, including mutual aid calls initiated by other public safety agencies within North Carolina.

TOWN OF CLAYTON
AMENDMENT TO THE CODE OF ORDINANCES
AMENDING CHAPTER 95

BE IT HEREBY ADOPTED THAT THE TOWN COUNCIL FOR THE TOWN OF CLAYTON, NORTH CAROLINA amend the Clayton Code of Ordinances Chapter 95 to read as follows:

CHAPTER 95: FIRE PREVENTION

Section

Fire Prevention Code

§ 95.01 PURPOSE & APPLICATION

§ 95.02 ADOPTION

§ 95.03 FIRE OFFICIAL

§ 95.04 PERMITS REQUIRED

§ 95.05 INSPECTIONS

§ 95.06 PRIMARY FIRE DISTRICT

§ 95.07 IMMEDIATELY DANGEROUS OR HAZARDOUS CONDITIONS

§ 95.08 NOTICE OF VIOLATION; ORDER TO CORRECT

§ 95.09 PENALTIES

§ 95.10 APPEALS

§ 95.11 INSTALLATIONS OF KNOXBOX RAPID ENTRY SYSTEM

§ 95.12 ALARM COMMUNICATION SYSTEM

Open Burning

§ 95.15 OPEN BURNING WITHIN TOWN OF CLAYTON'S TOWN LIMITS

§ 95.16 OPEN BURNING DEFINITIONS

§ 95.17 PERMISSIBLE OPEN BURNING WITH A PERMIT

§ 96.18 TRAINING

Fire Hydrants

§ 95.20 INSTALLATION SPECIFICATIONS

§ 95.21 EXCEPTIONS

§ 95.22 HYDRANT AND FIRE PROTECTION WATER SUPPLY

Hazardous Materials and Substances Mitigation

§ 95.25. PURPOSE AND AUTHORITY

§ 95.26 DEFINITIONS

§ 95.27 FINANCIAL RESPONSIBILITY; ASSISTANCE

§ 95.28 FEES AND CHARGES

Statutory reference:

Fire protection, see G.S. §§ 160A.291 - 160A.294

FIRE PREVENTION CODE

§ 95.01. PURPOSE & APPLICATION.

The purpose of this Chapter is to prescribe regulations governing conditions hazardous to life and property from fire, explosion or exposure to hazardous materials. The provisions of this article Chapter shall apply to new and existing conditions, and to the repair, use, occupancy and maintenance of existing buildings or structures specified in the State Fire Code and the Town of Clayton Unified Development Ordinance, and to other conditions hazardous to life or property in the opinion of the Fire Chief or their designee. Nothing contained in this Chapter shall be construed as applying to the transportation of any substance shipped in compliance with regulations prescribed by state and federal law nor as applying to the military forces of the United States.

§ 95.02 ADOPTION AND RELATIONSHIP TO OTHER LAWS AND STANDARDS.

(A) The North Carolina State Fire Prevention Code, as amended periodically, including Appendices B, C, D, F and J, and Section 105.6.32 regarding open burning operational permits, and as adopted by the North Carolina Building Code Council, is hereby adopted by the Town for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion and is incorporated by reference as fully as though set forth herein and of which not less than one copy is filed in the office of the Town Clerk. This code is hereby adopted and incorporated as fully as if set out at length herein, and the provision thereof shall be controlling within the limits of the Town, and its exterritorial jurisdiction.

(B) The current edition of the North Carolina Administration and Enforcement Requirements Code, as amended, is incorporated herein by reference for the administration of the North Carolina Fire Code, including Appendices B, C, D, F, and J.

(C) In the event of a conflict between a provision of the North Carolina Fire Code and this Code of Ordinances, the Town's Unified Development Code, or the state law, then the provisions of this Code of Ordinances or state law shall take precedence over the conflicting provision and shall prevail.

(Amend. adopted 5-4-92; Am. Ord. 2018-12-04, passed 12-17-18)

§ 95.03 FIRE OFFICIAL.

The *Fire Official* shall be the designated authority within the Town's Fire Department charged with the administration and enforcement of the Fire Prevention Code. The Fire Official shall be appointed by the Chief of the fire department on the basis of examination to determine his qualifications, which shall include having one of the following types of certifications issued by the North Carolina Code Officials Qualification Board attesting to his qualifications to hold such position:

(A) A probationary certificate;

(B) A standard certificate;

(C) A limited certificate.

(Amend. adopted 5-4-92)

§ 95.04 PERMITS REQUIRED.

(A) A property owner or owner's authorized agent who intends to conduct an operation or business or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed shall first make application to the Fire Official and obtain the required permit.

(B) Permits are not transferable and any change in occupancy, operation, tenancy, or ownership shall require a new permit to be issued.

(C) Permit fees will be administered following the Town Council Approved Budget User Fee Schedule.

§ 95.05 INSPECTIONS.

In accordance with the Fire Prevention Code, fire inspections are required for all new construction, and periodic fire inspections are required for all existing buildings. One and two-family residential dwellings are exempt from this requirement. The frequency of periodic inspections for existing buildings shall be based on the following schedule and billed accordingly to the Town's adopted fee schedule:

Occupancy Classification	Inspection Frequency
Hazardous	Every Year
Institutional	Every Year
High Rise	Every Year
Assembly (Occupant Load 100 and above)	Every Year
Residential (except 1 and 2 family dwellings)	Every Year
Group Home	Every Year
Licensed Day Care	Every Year
Factory/Industrial	Every 2 Years
Educational (Except Public Schools)	Every 2 Years
Business	Every 3 Years
Mercantile	Every 3 Years
Storage	Every 3 Years
Churches and Synagogues	Every 3 Years
Assembly (<100 Occupant Load)	Every 3 Years

(Amend. adopted 5-4-92)

§ 95.06 PRIMARY FIRE DISTRICT.

(A) In accordance with North Carolina G.S. § 160D-1128, the Town hereby establishes a primary fire district. The primary fire district boundaries are indicated on the town's official "Primary Fire District Map" dated June 1, 2013. The primary fire district map, as properly attested, is on file in the office of the Town Clerk and is available for inspection by the public.

(B) Within the primary fire district, no frame or wooden building or structure or addition thereto may be erected, altered, repaired, or moved (either into the district or from one place to another within the district) except in accordance with a building permit issued by the Inspections Department and approved by the Commissioner of Insurance or their designee.

(Amend. adopted 5-4-92; Am. Ord. 2013-06-13, passed 6-17-13)

§ **95.07 IMMEDIATELY DANGEROUS OR HAZARDOUS CONDITIONS.**

Whenever the Fire Code Official or their designee finds in any building or upon any premises dangerous conditions or materials as described below, they shall order such dangerous conditions or materials removed or remedied in such manner as the Fire Code Official may specify:

(1) Dangerous storage or unlawful amounts of combustible, flammable or explosive, or otherwise hazardous materials.

(2) Hazardous conditions arising from defective or improperly installed equipment for handling or using combustible, flammable or explosive, or otherwise hazardous materials.

(3) Dangerous accumulations of rubbish, wastepaper, boxes, shavings, or other highly combustible materials.

(4) Accumulations of dust or waste material in air conditioning or ventilation systems, or grease in kitchen or other exhaust ducts, or inadequate clearances to unprotected combustible materials from hoods, grease extractors, and ducts.

(5) Obstructions to or in fire escapes, designated access openings in exterior walls for fire department use, stairs, passageways, doors, or windows liable to interfere with the operations of the fire department or impede egress of occupants in the case of fire.

(6) Overcrowding in violation of occupancy limits established according to the State Building Code and required under the State Fire Code.

§ 95.08 NOTICE OF VIOLATION; ORDER TO CORRECT.

(A) Notice Required. When the Fire Official or their designee determines that a violation of this Chapter exists or that any commercial building or structure does not have a

valid permit in effect, the Fire Official shall issue a notice of violation and order to correct the violation. Such notice shall state the nature of the violation and penalty to be imposed, direct the violator how and when to pay the civil penalty, and notify the violator that failure to pay the penalty within the prescribed period of time will result in civil action.

(B) Service. Service of notice of violation and order to correct shall be made upon the owner, operator or occupant, or other person having control over the premises where the violation exists. Service shall be made by delivering a copy of the notice and order by electronic or hand delivery or by registered or certified mail, return receipt requested, sent to the owner, operator, occupant or tenant at their last known address listed in the county tax assessor's records, or by leaving a copy of the notice and order with an agent or employee of such person. If the owner, operator, occupant or tenant cannot be located on the premises, the Fire Official or their designee may effectuate service by affixing a copy of the violation notice and order prominently on the main entrance of the building where the violation exists.

(C) Where correcting the violation will require improvement to real property or may result in administrative penalties against the property owner, the property owner must be notified by mailing a copy of the notice and order to the owner's address as listed in the county tax assessor's office.

(D) Compliance with the Fire Code Official's notice of violation and order to correct:

1. Immediate action orders. The Fire Official or their designee may issue immediate correction orders for violations of the State Fire Code that constitute an imminent hazard to life and property. Any condition listed in section 95.07 shall be deemed an imminent hazard. Failure to correct such violation within 24 hours shall result in evacuation of the building and/or institution of fire watch.

2. Other correction orders. All other correction orders issued under this Chapter for violations that do not constitute imminent hazards shall be corrected within 60 days. Failure to correct such violations within 60 days shall result in imposition of the applicable reinspection fee in the amount approved in the Budget User Fee Schedule, until all identified violations have been completely corrected, and the correction order shall so state.

3. The correction order shall also state that if the violation is not corrected within 60 days, a civil complaint for the collection of penalties and any unpaid fees owed under this article may be initiated, and that other legal proceedings including criminal prosecution may be initiated.

§ 95.09 PENALTIES

Failure to comply with the provisions of this shall constitute a class 3 misdemeanor under G.S. 160A-175 and G.S. 14-4 and will subject the offender to a fine not exceeding $500 (five hundred dollars). Additionally, the Fire Code Official or their designee may enforce the provisions of this article in civil court and seek any and all appropriate remedies authorized by G.S. 160A-175,

subject to the restrictions of this section. Each day's continuing violation shall constitute a separate and distinct offense.

§ 95.10 APPEALS.

(A) Any person who has been served with a notice of violation and order for correction of violations of the State Fire Code may appeal the notice and order to the State Department of Insurance, State Building Code Council within ten days from date of issuance.

(B) Any person who has been served with a notice of violation and order for correction of violations of the provisions of this article which are not violations of the State Fire Code or which relate to fees or penalties charged under this article may appeal to the Town Manager, whose decisions shall be final. Appeals must be filed within ten days from the date of issuance of the order.

§ 95.11 INSTALLATIONS OF KNOXBOX RAPID ENTRY SYSTEM.

All new or newly renovated commercial buildings equipped with fire protection systems, emergency responder overage systems and/or elevators shall provide a "KnoxBox" key entry system. KnoxBoxes shall be mounted on the exterior entrance of the dedicated riser room for buildings with fire sprinkler systems. The KnoxBox shall be mounted on the wall at five feet above finished floor on the door handle side of the dedicated sprinkler riser room, fire alarm access door, or primary entry to the building. This KnoxBox shall be ordered through the KnoxBox Company web site https://www.knoxbox.com and shall be installed with proper keys before a certificate of occupancy is issued. Keys to access the facility or tenant spaces within the facility shall be provided to the Fire Department by the owner/manager or tenant.

§ 95.12 ALARM COMMUNICATION SYSTEM.

All buildings equipped with automatic sprinkler systems shall have alarm communication equipment that complies with NFPA 72. Equipment must be fully functional and reporting an approved central receiving station (NFPA 72) before a certificate of occupancy is issued for the facility.

All new fire alarm systems shall be addressable systems. Only one fire panel per building; a fire barrier or other means of separation for this purpose shall not constitute two separate spaces requiring individual panels. Combination alarms will not be allowed within the Town Limits. For the purpose of this section, combination alarms shall include devices combining burglary and fire alarms, devices combining burglary and hold-up alarms, and devices combining burglary and trouble alarms. There must be a distinct separation in the transmittal of any specific alarm activation.

When a building is protected by an automatic sprinkler system and has a fire alarm system, the fire alarm control panel or a remote annunciator of the fire alarm control panel shall be placed in

the sprinkler riser room. This control panel shall have the capability of silencing and resetting the alarm system. Adjacent to the fire alarm control panel shall be a framed zone map. Sprinkler zone nomenclature shall correspond with the zone map.

OPEN BURNING

§ 95.15 OPEN BURNING WITHIN TOWN OF CLAYTON'S TOWN LIMITS.

(A) No person shall cause, suffer, allow or permit open burning of refuse or other combustible material within the corporate limits of the Town or its extraterritorial jurisdiction, except as may be allowed and permitted herein, under state laws, rules, regulations or orders of the state environmental management commission (department of environment, health, and natural resources).

(B) Prior to commencing any open burning activities, the appropriate permits, must be obtained and an inspection of the burning location and approval of the open burning by the Town's Fire Official must occur. All applicable permits must be on site at the time of the burn.

(C) Nothing in this provision should be interpreted as to allow open burning of any sort during an active burn ban issued by the North Carolina Forestry Service.

(Ord. 2015-09-07, passed 9-8-15)

§ 95.16 OPEN BURNING DEFINITIONS.

(A) *Nuisance* means causing physical irritation exacerbating a documented medical condition, visibility impairment, or evidence of soot or ash on property or structure other than on the property on which the burning is done.

(B) *Open burning* means the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the atmosphere without passing through a stack, chimney, or a permitted air pollution control device. For purposes of this Chapter open burning shall not include the following so long as the burning does not create a nuisance: campfires, fires used solely for outdoor cooking, open-flame cooking devices, and the like.

(C) *Pit-burning* means a particular type of open burning using a portable combustion device that directs a plane of high velocity forced draft air through a manifold head into a pit with vertical walls in such a manner as to maintain a curtain of air over the surface of the pit and a recirculating motion of air under the curtain.

(D) *Refuse* means trash, construction materials, yard waste, and other man-made and non-vegetative materials, including synthetic materials.

§ 95.17 PERMISSIBLE OPEN BURNING WITH A PERMIT.

Open burning is permissible with a permit, from both the North Carolina Department of Agriculture and the Clayton Fire Department, as long as the open burning activity does not cause a nuisance as defined in this Chapter, for the following purposes:

(1) Agricultural, forest or wildlife management practices;
(2) Disposal of materials when it is the safest and most practical method of disposal, including but not limited to material generated as a result of a natural disaster if the State Department of Environmental Health and Natural Resources (DEHNR) regional office supervisor grants permission for the burning.
(3) Fires purposely set by manufacturers of fire extinguishing materials or equipment, testing laboratories, or other persons, for the purpose of testing or developing these materials or equipment in accordance with a valid standard qualification program;
(4) Fires purposely set for approved land clearing operations;
(5) Pit burning.

§ 95.18 TRAINING

A permit is not required for fires purposely set for the instruction and training of firefighting personnel, including fires at permanent firefighting training facilities, or when conducted under the supervision of or with the cooperation of one or more of the following agencies:

(A) The North Carolina Division of Forest Resources.

(B) The North Carolina Department of Insurance.

(C) North Carolina community colleges, including:

(1) The North Carolina Fire College, or

(2) The North Carolina Rescue College.

FIRE HYDRANTS

§ 95.20 INSTALLATION SPECIFICATIONS.

Fire hydrants shall be installed in accordance with the current Town of Clayton's Unified Development Ordinance, Town of Clayton's Manual of Specifications, Standards and Design and the NC Fire Code.

(Ord. passed 8-16-93) Penalty, see § 10.99

1) Fire hydrants shall be required when indicated by the applicable Fire Code or when a development includes four or more proposed lots, four or more dwelling units, or nonresidential uses to be served by extension of a public water supply system. Fire hydrants shall comply with the following requirements:

    a) Fire hydrants shall be located within street rights-of-way, no more than 1,000 feet apart, and no more than 500 feet from any lot or unit to be served;

    b) Fire hydrants shall be located at street intersections where practical, near the turnaround of a dead-end street, and at property line intersections;

    c) Water lines serving fire hydrants shall be at least six inches in diameter, or larger size, as required by the water service provider, and shall not be dead-end lines, unless no other practicable alternative exists;

    d) Fire hydrants shall comply with standard hydrant design (National Standard Thread, 4½-inch steamer, two 2½- inch discharge connections, etc.);

    e) Fire hydrants shall be maintained by the provider providing water to the development; and

    f) Fire hydrants shall only be required in cases where the system operator is capable of supplying sufficient water pressure to operate the hydrants.

2) All fire hydrants installed under the requirements of this section shall become the sole property of the Town upon acceptance.

3) In cases where a building includes sprinklers or similar fire suppression devices, fire hydrants shall be required in accordance with the North Carolina Fire Code.

§ 95.21 EXCEPTIONS.

(A) Where an acceptable public municipal water supply system is not available, fire hydrants will not be required.

(B) Buildings having a certificate of occupancy prior to this subchapter are exempt.

(C) One- and two-family residential buildings shall be located so that there will be no distance greater than 1,000 feet from a fire hydrant to any point of the exterior of any building.

(Ord. passed 8-16-93)

95.22 HYDRANT AND FIRE PROTECTION WATER SUPPLY

(A) Water supply systems shall be capable of supplying the required fire flow for fire protection provided to facilities, buildings or portions of buildings.

(B) Fire flow test on fire hydrants when required for hydraulic calculations of sprinkler systems and water flow requirements for projects.

(C) If recent, (less than one-year-old) fire flow test information is available in the Town or County's Water Utility records in the vicinity of the desired test location, the information will be provided to the applicant at no charge.

(D) If it is determined that a new fire flow test is needed, a request for third party testing must be submitted to the Town. Testing personnel must be qualified to provide a fire flow test of water supply and will need approval from the Engineering department.

(E) Information provided is an indication of the water supply characteristics in the immediate area on the date and time noted. The Town and Fire Department do not guarantee that this data will be representative of the water supply characteristics at any time in the future.

(F) The construction of private fire service mains and appurtenances shall be in accordance with NFPA 24. New systems are required to have a fire flow analysis/hydraulic modeling report of the proposed project provided to the Fire Marshal's Office and the Town's Engineering Department.

HAZARDOUS MATERIALS AND SUBSTANCES MITIGATION

§ 95.25. Purpose and authority.

The chief of the fire department or his designee and emergency management shall have the authority to summarily mitigate or remedy hazardous materials which are released into the environment in such a manner as to endanger the health or safety of the general public or the environment. The fire chief or his designee and emergency management shall have the authority to enter public or private property, with or without the owner's consent, to respond to such hazardous materials emergencies. The fire chief or his designee and emergency management shall determine the type, amount and quantity of equipment and personnel required to adequately abate, and remedy all hazardous materials which are emitted into the environment. This section

shall not be interpreted to create a duty on the part of the Town to respond to or remedy hazardous material spills or incidents. Nothing in this section shall be construed as to prevent police from criminal investigation.

§ 95.26 Definitions. The following definitions shall apply in the interpretation of this article:

(A) *Emergency management* means any Town employee asked in a professional capacity to assist the fire department with hazardous material response, including but not limited to, the police department and public works department.

(B) *Having control over* means, but not be limited to, any person using, transferring, storing or transporting a hazardous material immediately prior to release of such hazardous material on to the land or into the air or the waters within the Town.

(C) *Hazardous material* means any solid, liquid or gaseous material, or the combination of thereof, which, when discharged in any quantity, may present an eminent and substantial danger or injury to the public health or welfare or to the environment.

(D) *Hazardous materials response* means the sending of fire department equipment to abate hazardous materials which due to the quantity, concentration or physical chemical or infectious characteristics endanger the health or safety of persons or the environment.

(E) *Person* includes individuals, firms, partnerships, associations, institutions, corporations, local governments and the governmental agencies.

§95.27 Financial responsibility; assistance.

(A) Any property owner and/or the person(s) exercising or having control over hazardous materials that create a hazardous materials emergency shall be held financially liable for the response, abatement, and remedial costs incurred by the Town in response thereto, including but not limited to the actual cost of materials and/or equipment used by the Town to clean up or remedy the effects of such incident. Nothing herein shall prejudice the owner or party in control of the hazardous material from seeking recovery for the charges incurred herein from another party; but regardless of rights of action against others, the owner or party in possession, whichever the case may be, shall promptly pay the charges referenced herein.

(B) The property owner and/or the person(s) exercising or having control over such hazardous materials shall assist the fire department in abatement, removal and remedial measures associated with the hazardous materials emergency. Assistance shall consist of any or all of the following:

(1) Complying with the direction of the fire department.

(2) Providing emergency response plan information for the site.

(3) Providing emergency response equipment, personnel and materials available on site.

§95.28 Fees and charges.

(A) The charges for hazardous materials emergency response incurred by the Town shall be billed at the time of the hazardous material response as follows:

(1) Fire apparatus shall be billed at the FEMA rate;

(2) Wages of all responders shall be billed at a rate of 1.5 times;

(3) Supplies and materials shall be billed at actual cost of replacement, plus ten percent (10%).

(B) An assessment of the charges shall be in writing and delivered to the responsible party. Any charge assessed pursuant to this article shall be payable within thirty (30) days of the date of the assessment unless otherwise agreed to in writing and subject to approval by the Town Manager; provided that if the responsible party is not agreeable to this time period, the responsible party shall have ten (10) days to appeal the decision of the director to the Town Council in writing, whereupon the matter will be placed on the agenda for the next regular Town Council meeting. The decision of the Town Council shall be final.

(C) Any charge not paid within the required time period shall be a lien upon the land or premises where the abatement took place, and shall be collected as unpaid taxes pursuant to the authority of G.S. 160A-193. All reasonable attorneys fees and costs of collection shall be added to charges not paid within the required time period.

(D) The authority to recover costs under this section shall include costs incurred on calls for service either within or outside of the Town limits of the Town, including mutual aid calls initiated by other public safety agencies within North Carolina.

Duly adopted this 18th day of August 2025, while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM:

_____
Jim Cauley
Town Attorney

Ordinance #2025-08-06

TOWN OF CLAYTON
PROCLAMATION
BUILDING AND CODE STAFF
APPRECIATION DAY

WHEREAS, Building and Code staff are essential, not only in the industries in which they work, but to society as well by ensuring that buildings and infrastructure are safe for everyday use by our residents, businesses and patrons; and

WHEREAS, detailed review of building plans and the inspection process involved to achieve compliance, help institute a path forward that keeps the project running efficiently which reduces cost and ensures a safe structure is built in a timely manner; and

WHEREAS, code staff review, inspect and enforce safe building practices in a variety of construction and critical infrastructure components including structural, electrical, mechanical, plumbing, fire systems, accessibility and energy as they apply to housing, commercial buildings and public works infrastructure; and

WHEREAS, Building and Code Staff Appreciation Day is intended to remind the public about the critical role of our communities' code officials-our largely unknown guardians of public safety.

NOW, THEREFORE, on behalf of the Clayton Town Council, we hereby proclaim September 1, 2025 as Building and Code Staff Appreciation Day.

Proclaimed this the 18th day of August, 2025.

_____

Jody L. McLeod
Mayor

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	PUBLIC HEARINGS

Item Title

++++Applicant has requested to continue item to the September 2nd Town Council Meeting++++
(See Attachment 13) 2025-10-CZM Dominium Clayton Mixed Use Conditional Rezoning

Presenter(s)

Conrad Olmedo, Planning Director

Suggested Action

Other - Open Public Hearing and continue this item to September 2nd Town Council Meeting, per applicant request (included in agenda attachments).

Strategic Priorities Alignment

☐ Vibrant Downtown	☒ Desirable Amenities and Spaces	☐ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☒ Diversified Economic Development	☐ Community Outreach and Engagement	☐ Public Safety

Public Hearing: Yes - Legislative

Applicable General Statute Number: §160D-703(b)

If Approved, Will Document Require Recordation? Yes

Does This Item Require a Communication Plan?

☒ Public Hearing (Required by GS)
☒ Newspaper Notice (Required by GS)
☐ Public Forum/Input Session
☐ E-News Distribution
☐ Public Hearing (Not Required by GS)
☐ Newspaper Notice (Not Required by GS)
☐ Press Release
☐ Website

☐ Social Media
☒ Special Mailing
☐ Survey
☐ None Required

Other/Special Instructions: Newspaper Ad published August 6th and August 13th Surrounding Property Mailings sent by deadline of August 8, 2025 Signs Posted by deadline of August 8, 2025

Summary

The applicant is requesting to rezone one parcel, approximately 8.31 acres, from Corridor Commercial (CRM) to the Conditional Commercial (CZC) zoning district. This is a Type 3 Conditional Rezoning and is accompanied by a Concept Plan. The applicant is proposing a Senior Living Facility and a 6,405 square foot commercial building. If approved, any Conditions of Approval and the associated Concept Plan will run with the land in accordance with NCGS.

Background/History

This application was heard on July 28, 2025 by the Planning Board during their regularly scheduled meeting. The Planning Board recommended approval with conditions of this rezoning application. The Planning Board also recommended additional conditions be placed upon the application. These recommended conditions are outlined in the Staff Report.

Recommendation

The applicant has formally requested to continue this item to the September 2nd Town Council Meeting. This request is included in the agenda attachments. Staff recommends Town Council open the Public Hearing on August 18th and formally continue to September 2nd.

Staff will recommend approval with conditions outlined in the agenda packet during the September 2nd Meeting.

Funding Source

N/A

Cost

N/A

Corresponding Documentation

00_Staff Report_Dominium-Clayton Mixed Use CZM_08182025-V1

01_Staff Report Maps_Dominium - Clayton Mixed Use CZM_08182025

02_Application_Dominium-Clayton Mixed Use CZM_07112025

03_OwnersConsentForm_Dominium-Clayton Mixed Use CZM_08182025

04_Neighborhood Meeting Info_Dominium-Clayton Mixed Use CZM_08182025

05_Surrounding Property Notice_08082025

06_Exhibit A-Concept Plan_Dominium-Clayton Mixed Use CZM_08182025

07_Conditions of Approval 2025-010-CZM - 08.08.25

08_MasterPlan Narrative_Dominium-Clayton Mixed Use CZM_08182025

09_TrafficAssessment_Dominium-Clayton Mixed Use CZM_08182025

10_Consistency Statements Sheet_08182025

11_Newspaper Ad Affadavit_August18 TC

12_Ordinance_Dominium Clayton Mixed Use CZM_08182025

13_Applicant Request for Continuance to September 2nd

Meeting Timeline

July 28, 2025: Planning Board (Public Meeting)
August 18, 2025: Town Council (Public Hearing)
September 2, 2025: Town Council (Public Hearing, continued from August 18, 2025)

Submitted By: Haley Downey, Planning

Reviewed By:

Haley Downey, Assistant Planning Director	Approved - Aug 11 2025
Conrad Olmedo, Planning Director	Approved - Aug 11 2025
Courtney Tanner, Deputy Town Manager	Approved - Aug 14 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720
planning@townofclaytonnc.org

Planning Board Public Meeting: July 28, 2025
Town Council Public Hearing: August 18, 2025

STAFF REPORT	
Project Number:	2025-10-CZM
Project Name:	Clayton Mixed Use / Dominium Conditional Rezoning, Type 3
Property Pin #:	177000-18-0722
Location:	Within Town limits located on the southerly side of Pritchard Road east of the intersection of Swann Trail, west of the intersection of Athletic Club Boulevard, north of Waterfield Drive and Collingsworth Road, with an unassigned address and identified as Johnston County Tax ID 16I02046B.
Applicant:	Dominium Development and Acquisition, LLC – Shaun Reinhardt
Property Owner:	Zogreo, LLC 1201 Edwards Mill Road, Suite 300, Raleigh, NC 27607
Town Council Public Noticing Dates:	Surrounding Property Owners Notice mailed by the deadline of August 8, 2025 Properties posted by the deadline of August 8, 2025 Newspaper Legal Ads published August 6 and August 13, 2025
Request:	Request to rezone approximately 8.31 acres of land from the Corridor Commercial (CRM) to the Conditional Commercial (CZC) zoning district. This is a Type 3 Conditional Rezoning with a Concept Plan, which includes a mixture of two uses: an affordable 167-unit senior living multi-family development and an associated 6,405 square-foot commercial building.

PROJECT OVERVIEW

The applicant is requesting conditional rezoning of an 8.3 acre parcel from the Corridor Commercial (CRM) to Conditional Commercial (CZC) zoning district. The project's associated Concept Plan includes a 167-unit senior-living, affordable housing, multi-family building and a 6,400 square-foot commercial building. The applicant is proposing an enhanced 20-foot Type B landscape buffer along all street frontages instead of a streetscape buffer. No internal buffering between the multi-family and commercial use will be required, as this is considered to be Unified Development. The applicant is proposing one stormwater pond of which the final location and design will be subject to review and approval of Site Plan and Construction Drawings.

Internal circulation, parking areas, and trash collection areas are included on the concept plan. These are general in nature and will be designed at the Site Plan stage. The development will include one right-in/right-out along Pritchard Road which provides access to both the multi-family and commercial uses. The primary entrance/exit for the multi-family use is located along Collingsworth Drive and an

additional entrance/exit is located on Swann Trail. Access is also provided to and from an adjacent commercial development to the southeast, currently under review.

A limited Traffic Analysis was submitted with this request and was reviewed by the Town's consultant and NCDOT. Traffic improvements resulting from the Traffic Analysis are outlined in the Conditions of Approval.

Conditions of Approval

As outlined in the Conditions of Approval, the applicant is requesting to limit the number of uses otherwise permitted in the CZC zoning district. This is to provide flexibility for development of the site, marketability to potential users, while limiting the number of overall trips generated by the site.

The Conditions of Approval also include various deviations and additional flexibility from current UDO standards. The applicant has submitted a project narrative inclusive of the proposed deviations, which has been attached to this agenda. Since this is a large-scale Unified Development aiming to provide a desired affordable housing options for seniors, there were discussions with staff regarding the need for flexibility surrounding setbacks and parking. The applicant intends to use sustainable development incentives to reduce the number of parking spaces.

ADJACENT ZONING, LAND USES, AND FUTURE LAND USES			
Direction	**Zoning**	**Existing Land Use(s)**	**Future Land Use**
North	RLD, PD-MU	Single-Family Residential, Vacant	Low Density Residential
South	CRM, RLD	Vacant (Commercial Use under review), Schools (Riverwood Elementary/Middle)	Medium Density Residential; Neighborhood Center
East	PD-MU, CRM	Vacant; Attached, Single-Family Residential; Multi-family Residential	Medium Density Residential
West	RLD, OFI	Single-Family Residential, Riverwood Athletic Club	Medium Density Residential

REVIEW CRITERIA

Per UDO Section 2.3.6.J, "the advisability of approving a Conditional Rezoning application is a matter committed to the legislative discretion of the Town Council and is not controlled by any one factor. In determining whether to adopt or deny a proposed Conditional Rezoning, the Town Council may weigh the relevance of and consider the following:

1. If the application is consistent with the applicable standards in Section 3.3, Conditional Zoning Districts;
2. Whether the proposed Conditional Rezoning advances the public health, safety, or welfare;
3. Whether and the extent to which the proposed Conditional Rezoning is appropriate for its proposed location, and is consistent with the purposes, goals, objectives, and policies of the Town's adopted policy guidance;
4. Whether an approval of the Conditional Rezoning is reasonable and in the public interest;
5. Whether and the extent to which the Concept Plan associated with the Conditional Rezoning is consistent with this Ordinance; and
6. Any other factors the Town Council may determine to be relevant.

CONSISTENCY WITH COMPREHENSIVE PLAN AND FUTURE LAND USE MAP

The Town's Future Land Use Map designates the parcel as Medium Density Residential with a Community Center overlay. Medium Density Residential (MDR) typically includes neighborhoods with housing units that are urban in character and in close proximity to commercial services and centers. With the Community Center Overlay, which is intended to serve larger populations and may include multi-family housing, these parcels are envisioned to provide a mixture of uses including both commercial and residential development. The proposed Concept Plan includes high-density (23.4 units per acre), affordable housing for seniors in a single building, and an associated commercial development. The proposed high density is inconsistent with the underlying land use designation of MDR on the Future Land Use Map and with the proposed densities suggested in the Comprehensive Plan. However, the mix of uses and the multi-family residential is consistent with the Community Center overlay.

Additionally, the request appears to be consistent with the following Goals & Policies of the 2045 Comprehensive Growth Plan:

Goal LU1: Preserve Clayton's Character while allowing for growth and development in appropriate areas.

- Policy LU 1.2: Encourage developments which incorporate high quality design and enhance the quality of life for existing and future residents of the Town.
- Policy LU 1.3: Encourage non-residential land uses in areas consistent with the Future Land Use Map.

Goal LU 3: Encourage a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

- Strategy LU 3.1.2: Within larger developments, encourage higher density housing types to be located in those areas with closest proximity to services, amenities, and infrastructure.
- Strategy LU 3.1.3.: Consider allowances for higher density development if certain conditions exist or standards are met.

PLANNING BOARD CONSIDERATIONS

The Planning Board heard this item during their July 28, 2025 regular meeting. The Planning Board made a recommendation of **APPROVAL** to the Town Council with the following considerations included in their motion:

1. Applicant to work with existing businesses in Riverwood to ensure no duplication of uses;
2. Install Crosswalks on Pritchard Road at the intersection with Athletic Club Boulevard;
3. Applicant to coordinate with NCDOT to improve traffic patterns;
4. Articulate the age of the age-restricted units, e.g. for residents aged fifty-five (55) or older; and
5. Addition of ADA compliant ramps.

TOWN COUNCIL CONSIDERATIONS

This application is to be considered during the August 18, 2025 public hearing scheduled as a portion of the regularly scheduled Town Council meeting.

STAFF COMMENTS AND RECOMMENDATION

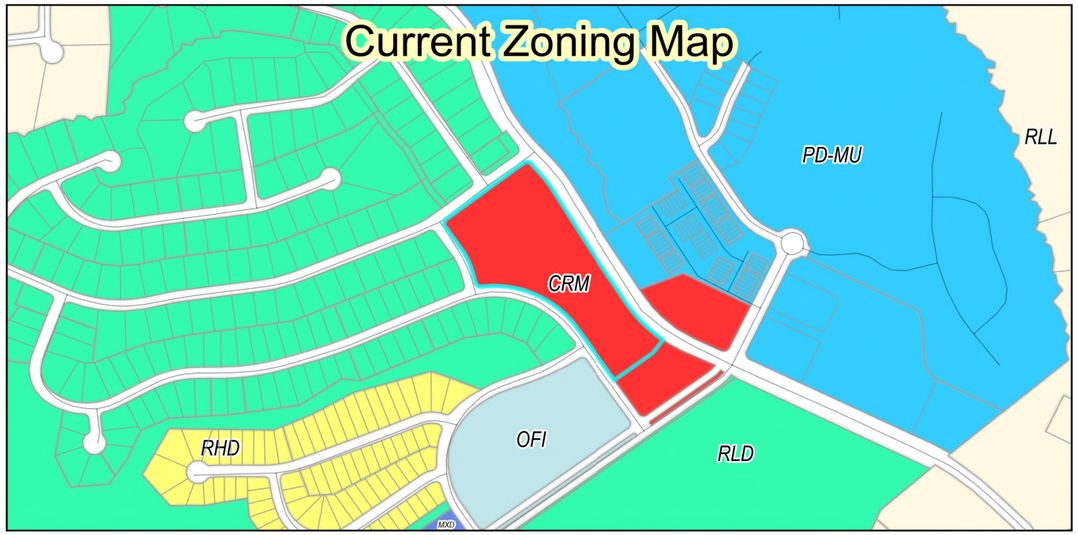
The Technical Review committee has thoroughly reviewed the proposed rezoning and associated concept plan. Planning staff is recommending ***approval*** of the request, the associated Concept Plan, and the Conditions of Approval included in the agenda packet. Following the Planning Board's July 28, 2025 meeting, the following revisions were made:

- Updates to UDO Section numbers as the most recent UDO Text Amendments occurred after the initial submittal of the Conditions to the Planning Board.
- Clarification headings to differentiate between the multi-family use and the commercial use in Conditions #11 and #12
- Addition of Condition #14.c.ii. to provide crosswalks and ADA ramp landings at the northwestern portion of the intersection of Collingsworth and Athletic Club Boulevard.

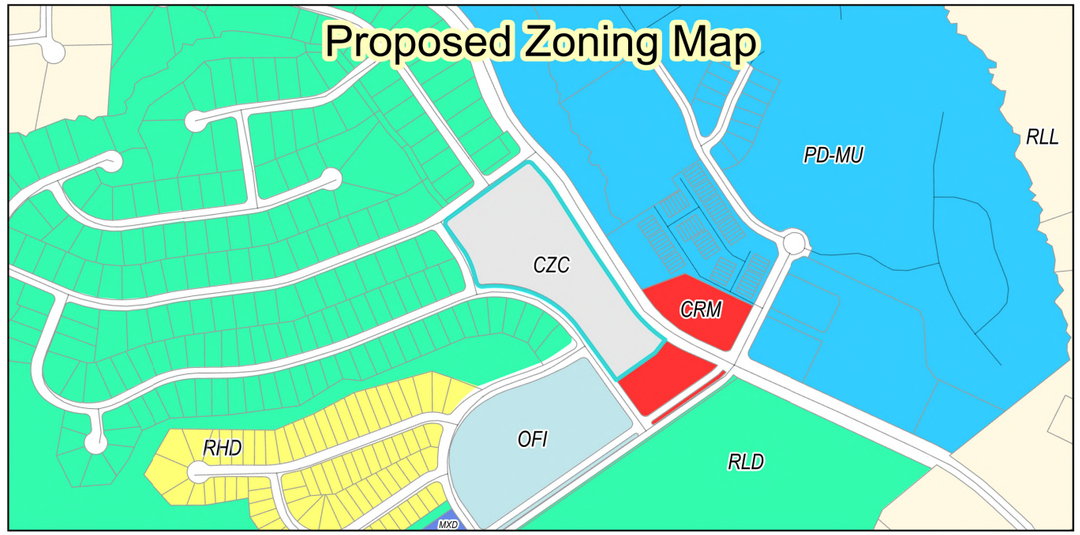
ATTACHMENTS:

1. Staff Report Maps
2. Application
3. Owners Consent Form
4. Neighborhood Meeting Materials
5. Surrounding Property Owner Notice
6. Exhibit A- Concept Plan
7. Proposed Conditions of Approval
8. Master Plan Narrative
9. Traffic Assessment
10. Consistency Statements Sheet
11. Newspaper Ad Affidavit
12. Ordinance

Current Zoning Map



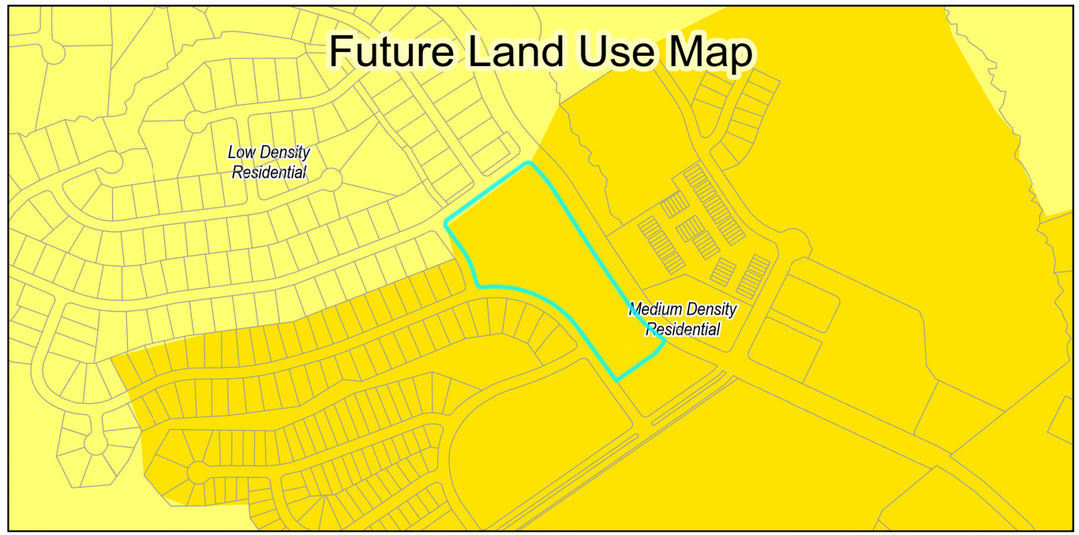
Proposed Zoning Map



Aerial



Future Land Use Map



Request: Conditional Rezoning - Type III
Project Name: Clayton Mixed Use / Dominium
Project Number: 2025-010-CZM

Site

0 0.3 0.6 Miles

N

Applicant: Dominium Development and Acquisition, LLC - Shaun Reinhardt
Property Owner: Zogreo, LLC
Tag #: 16I02046B

Staff Report Map
Prepared by: TOC Planning Department
July 7, 2025

Disclaimer: Town of Clayton assumes no legal responsibility for the quality of the data represented here.

Document Path: C:\Users\rtate\OneDrive - Town of Clayton, NC\Documents\ArcGIS\Projects\MyProject2\MyProject2.aprx

Docusign Envelope ID: 5819B1B2-0455-4335-93FA-F0682BF063DD

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC27528
Phone: 919-553-5002
Fax: 919-553-1720

CONDITIONAL REZONING, TYPE 3 UNLIMITED W/ CONCEPT PLAN COVER SHEET

Name of Project: Clayton - Pritchard Road Mixed-Use **Date:** 1/28/25

Applicant Name: Dominium Development and Acquisition LLC

The following checklist to be completed by applicant. All materials must be submitted in PDF format.

☒ Pre-Application Meeting on: October 15, 2024

Note: Pre-application meeting must be held no more than 6-months prior to submittal.

☒ Neighborhood Meeting on: January 14, 2025

Note: Neighborhood meeting required to be held no more than 60-days prior to submittal.

- ☑ Review Fee
- ☑ Completed Application
- ☑ Owner's Consent Form
- ☑ List of property owners within 300 feet of subject parcel(s)
- ☑ Neighborhood Meeting Materials
- ☑ Signed & sealed boundary survey
- ☑ Applicant-proposed Conditions of Approval
- ☑ Concept Plan, meeting requirements of UDO
- ☑ Traffic Impact Analysis, as applicable
- ☑ Wastewater Allocation Request, as applicable

Reviewed by: _____

Docusign Envelope ID: 5819B1B2-0455-4335-93FA-F0682BF063DD

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Conditional Rezoning, Type 3 Unlimited w/ Concept Plan Application

www.ClaytonNC.org/Fees

Applicable Fees: Conditional Rezoning, Unlimited with Associated Concept Plan Fee

APPLICATION TYPE

☑ **New Type 3, Conditional Rezoning** ☐ **Major Modification, modifying:** _____

PROJECT & SITE INFORMATION

Name of Project: Clayton - Pritchard Road Mixed-Use

Acreage of Property: 8.31 **Existing Use:** CRM - Corridor Commercial

County Tag #: 16I02046B **NC Pin #:** 177000-18-0722

Address/Location: Southwest of Pritchard Rd between Swann Trl and Athletic Club Blvd

Existing Zoning District: CRM **Proposed Zoning District:** CZC

Are you submitting the application under the ordinances and policies in effect at the time of the application for review by the Town of Clayton? ■ **Yes** ☐ **No**

If you answered "No" to the question above, please specify the ordinance(s) and/or policy(ies), including version(s), under which the application is being submitted: _____

Note: Supporting documentation must be submitted with the application.

APPLICANT INFORMATION

Applicant: Dominium Development and Acquisition LLC

Mailing Address: 2905 Northwest Blvd, Plymouth, MN 55441

Phone Number: 404-806-5855 **Fax:** _____

Contact Person: Shaun Reinhardt

Email Address: shaun.reinhardt@dominiumnc.com

OFFICE USE ONLY

Date Received: _____ Amount Paid: _____ File Number: _____

Docusign Envelope ID: 5819B1B2-0455-4335-93FA-F0682BF063DD

PROPERTY OWNER INFORAMTION

Name: Zogreo, LLC

Mailing Address: 1201 Edwards Mill Road, Suite 300, Raleigh, NC 27607

Phone Number: 919-624-6767 **Fax:**

Email Address: janthony@apgcre.com

EXPLANATION OF PROJECT

Please provide detailed information concerning all requests. Attach additional sheets if necessary.

Please see the attached Master Plan Narrative Letter for explanation of the proposed Senior Living, Affordable Housing, Multi-Family project with connected future retail.

REVIEW CRITERIA

Please provide a response to each Review Criteria listed below. Attach additional sheets if necessary.

1. If the application is consistent with the applicable standards in Section 3.3, Conditional Zoning Districts, of the Unified Development Ordinance.

   Please see Master Plan Narrative Letter.

2. Whether the proposed Conditional Rezoning advances the public health, safety, or welfare.

   Please see Master Plan Narrative Letter.

3. Whether and the extent to which the proposed Conditional Rezoning is appropriate for its proposed location, and is consistent with the purposes, goals, objectives, and policies of the Town's adopted policy guidance.

   Please see Master Plan Narrative Letter.

4. Whether an approval of the Conditional Rezoning is reasonable and in the public interest.

Please see Master Plan Narrative Letter.

5. Whether and the extent to which the Concept Plan associated with the Conditional Rezoning is consistent with this ordinance.

Please see Master Plan Narrative Letter.

CONCEPT PLAN REQUIREMENTS:

At minimum, the Concept Plan associated with a Type 3 Conditional Rezoning application shall include the following elements as required by the UDO. Please confirm inclusion of these items in your submittal.

Provided		
Yes	No	
☑	☐	General location of development areas, identified by land use(s) and/or development density or intensity.
☑	☐	General configuration and relationship of the principal elements of the proposed development, including general building types.
☑	☐	Identification of, for the entire district and each development area, the acreage, types, and mix of land uses, number of residential units (by use type), non-residential floor area (by use type), residential density, and non-residential intensity (floor area square footage).
☑	☐	General location, amount, and type (whether designated for active, passive, or gathering area) of open space set-aside.
☐	☑	The location of environmentally sensitive lands, wildlife habitat, and resource protection lands;
☑	☐	The on-site transportation circulation system, including the general location of all streets, existing or projected transit service, pedestrian, and vehicular circulation features, and how they will connect with existing and planned systems.
☑	☐	The general location of on-site potable water and wastewater facilities, and how they will connect to existing systems.
☑	☐	The general location of all other on-site public facilities serving the development, including but no limited to parks, schools, bus shelters, and facilities for fire protection, police protection, EMS, and solid waste management.
☑	☐	The applicable dimensional standards, including consistency with the conditional zoning district dimensional requirements or any requested deviations.

APPLICANT AFFIDAVIT

I understand that by signing this application I am legally bound to the representation, terms, and conditions herein. By signing below, I certify that I was technically able to read and had a reasonable opportunity to read this disclosure. I further acknowledge that I am authorized to submit this application, and any subsequent revisions thereto, and confirm having obtained permission from the property owner/occupant for the application and the Town's entry onto the property, if applicable. I further authorize Town of Clayton representatives to enter the site for purpose of conducting inspections or evaluations to determine compliance with applicable laws, policies, and manuals. I hereby certify that all of the information provided in this application and any attached documents is true, accurate, and complete to the best of my knowledge. I understand that any false information may result in rejection of the application or revocation of the permit or plan. I understand this submittal with its related materials and all attachments become official records of the Town of Clayton, North Carolina, and will not be returned. I understand this application and any communication, approval, or resulting permits issued as a result of this application are subject to disclosure pursuant to the North Carolina Public Records Act. I also acknowledge that, pursuant to NCGS § 143-755(b1), failure to respond to Town comments or holding the permit application on hold for six consecutive months or more will result in the cessation of review and forfeiture of all application fees, requiring a new application under current regulations. I shall not hold the Town of Clayton, its officers, employees and agents liable for any claims, losses, liabilities, expenses, charges or damages arising from or relating to incomplete, inaccurate, or false applications, or any additional supplemental applications, with respect of any cause arising out of, resulting from, or in connection with the application or permit.

Shaun Reinhardt	DocuSigned by: Shaun Reinhardt DE5B38FB69C3411...	5/9/2025
Print Name	***Signature of Applicant***	***Date***

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Clayton Mixed-Use Development **Address or PIN #:** 16I02046B

AGENT/APPLICANT INFORMATION:

Dominium Development and Acquisition LLC
(Name - type, print clearly)

2905 Northwest Blvd, Suite 150
(Address)
Plymouth, Minnesota 55441
(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (***list applicable requests***):

Conditional Rezoning

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

Zogreo, LLC
(Name - type, print clearly)

(Owner's Signature)

1201 Edwards Mill Road, Suite 300
(Address)

Raleigh, NC 27607
(City, State, Zip)

STATE OF North Carolina
COUNTY OF Wake

Sworn and subscribed before me Vickie Edwards, a Notary Public for the above State and County, this the 8 day of January, 2025.

SEAL

VICKIE EDWARDS
NOTARY PUBLIC
Johnston County
North Carolina
My Commission Expires 8-29-26

Vickie Edwards
Notary Public

My Commission Expires: 8-29-26

NEIGHBORHOOD MEETING INFORMATION

Purpose:
The purpose of the neighborhood meeting is to inform landowners and occupants of nearby lands about a development application that is going to be reviewed under this by the Town of Clayton and to provide the applicant an opportunity to hear comments and concerns about the proposed development from landowners and occupants of nearby lands. It is not the intent of these standards to unreasonably delay or prevent an applicant from filing their development application.

Meeting Date:
The meeting shall take place prior to the application being initially filed with the Town. Nothing shall limit the Town Council from requiring one or more neighborhood meetings be conducted prior to the application being decided.

Meeting Time & Location:
The neighborhood meeting shall take place in a location open to the general public that is as close as possible to the site where development is proposed. In the event no suitable location open to the general public is available, the meeting may take place at a Town-owned or -operated site, subject to any Town requirements for its use. Additionally, the applicant may hold a Virtual neighborhood meeting conducted in a manner consistent with the Town's policies for virtual meetings.

Meeting Notice Mailing requirements:

1. The applicant shall provide notification of the neighborhood meeting via first class mail to all landowners within 300 linear feet of the parcel(s) where the development is proposed.
2. Mailed notice shall be provided no less than ten days prior to the date of the neighborhood meeting.
3. Landowners are advised that any required public notice of a subsequent development application will be provided in accordance with Section 2.4.8, Public Notice, which may be less than 300 feet from the parcel where development is proposed.
4. Multiple meetings may take place, but advance notification for each meeting shall be provided in accordance with subsection 2.4.4 of the Neighborhood Meeting section of the UDO.

Information required to be provided at the Neighborhood Meeting Invitation:

1. The purpose of the meeting;
2. A description of the proposed development;
3. The time, date, and location of the meeting;
4. Telephone and email contact information for the applicant or applicant's representative; and
5. Any additional information that would promote understanding of the development proposal

Information required to be provided at Neighborhood Meeting:

1. A copy of the project application.
2. A schedule of all upcoming public meetings for the application.
3. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
4. A map, drawing, or other depiction of the proposed land use change or development proposal.

Information provided to the Planning Department:

Alert the Planning Department once the date, location, and time of the Neighborhood Meeting are determined.

Deliver the following items to the Planning Department at the time of application submittal in electronic or hard copy format:

- [X] A list of all parties and mailing addresses who were mailed a meeting notice;*
- [X] Written proof of mailing was provided in accordance with Section 2.4.4C.3, Notification;*
- [X] A copy of the meeting notice;*
- [X] A sign-in sheet of meeting attendees; and*
- [X] A list of the items discussed, including any questions posed by attendees and the answers provided*

*_Submitted with completed application at the time of submittal._

ADJACENT PROPERTY OWNERS LIST

Project Name: Clayton Mixed Use Development

The following are all the persons, firms, or corporations owning property within 300 feet and immediately adjacent to the property (including across street rights of way) subject to this request. Where the subject property immediately adjoins a public or private right-of-way, landscape or riparian buffer, commonly-owned private area, public property, or homeowners' association property, then letters of notification shall be sent to adjoining property owners as if they directly abut the subject property. Please use a separate sheet if necessary

It is the responsibility of the applicant to correctly identify the current owner, based upon records in the Johnston County GIS Office, for all property owners of land within the required public notice radius.

PARCEL NUMBER	NAME	ADDRESS
16I02046B	ZOGREO, LLC WILDER INVESTORS LLS	1201 EDWARDS MILL RD SUITE 300 RALEIGH, NC 27607-0180
16I02046E	BONAPARTE, LARELLE BONAPARTE, TARIA S.	109 SWANN TRL CLAYTON, NC 27527-5598
16I02046Q	FLETCHER, BRIANFLETCHER	204 SWANN TRL CLAYTON, NC 27527-5599
16I02046R	HICKS, JOHN JOINT TENANTS (WROS)	200 SWANN TRL CLAYTON, NC 27527-5599
16I02047Q	RIVERWOOD ON THE NEUSE LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02046G	SKILLMAN, BENJAMIN MICHAEL	205 SWANN TRL CLAYTON, NC 27527-6502
16I02046H	PALMER, CHRISTOPHER J	209 SWANN TRL CLAYTON, NC 27527-6502
16I02046I	HOFFMAN, MARCHOFFMAN, JAIME	213 SWANN TRL CLAYTON, NC 27527-6502
16I02046J	MATTHEWS, DERRICK MONROE	217 SWANN TRL CLAYTON, NC 27527-6502
16I02053Y	GORHAM, ANTHONY Q. JR	209 TARKENTON CT CLAYTON, NC 27527-6525
16I02053Z	ELLIOTT, THOMAS M	213 TARKENTON CT CLAYTON, NC 27527
16I02054H	RIVERWOOD ON THE NEUSE LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02046D	WILLIAMS, REBECCA B.	100 ELWAY DR CLAYTON, NC 27527-5583
16I02047O	RIVERWOOD ON THE NEUSE LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02008	KOEMAN, ROBERT L	104 ELWAY DR CLAYTON, NC 27527-5583
16I02047P	RIVERWOOD ON THE NEUSE LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02062T	DIBOH, JENNIFER JOINT TENANTS (WROS)	109 ELWAY DR CLAYTON, NC 27527-5583

ADJACENT PROPERTY OWNERS LIST

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PARCEL NUMBER	NAME	ADDRESS
16I02062U	STAINBACK, CASSANDRA G.	105 ELWAY DR CLAYTON, NC 27527
16I02046C	KORNEGAY, MARTY A.	101 SWANN TRL CLAYTON, NC 27527-5598
16I02054	STEINMANN, JEFF A.	216 TARKENTON CT CLAYTON, NC 27527-6525
16I02062C	MONGE, CARLOS	116 ELWAY DR CLAYTON, NC 27527-5583
16I02062A	MARQUIS, TIMOTHY	108 ELWAY DR CLAYTON, NC 27527-5583
16I02062R	MALONE, JAMES L.	117 ELWAY DR CLAYTON, NC 27527
16I02062B	WAGNER, KENNETH V.	112 ELWAY D RCLAYTON, NC 27527-5583
16I02062S	KIM, HYEONG K.	113 ELWAY DR CLAYTON, NC 27527-5583
16I02005K	SIMMENTAL VENTURES LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02026B	FSC RANCH, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02023J	FOISTER, JORDAN M.	324 COLLINSWORTH DR CLAYTON, NC 27527-3935
16I02023K	LEE, LAURIE P	320 COLLINSWORTH DRIVE CLAYTON, NC 27527-0000
16I02023F	AMH NC PROPERTIES, LP	23975 PARK SORRENTO STE 300 CALABASAS, CA 91302-4012
16I02023E	AMH 2014 2 BORROWER LLC	23975 PARK SORRENTO STE 300 CALABASAS, CA 91302-4012
16I02023G	AMH NC PROPERTIES TWO L.P.	23975 PARK SORRENTO STE 0 CALABASAS, CA 91302-4015
16I02054Y	RIVERWOOD ATHLETIC CLUB COMMUNITY ASSOCIATION INC	400 RIVERWOOD DRIVE CLAYTON, NC 27520-0000
16I02058S	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271

ADJACENT PROPERTY OWNERS LIST

Project Name: Clayton Mixed Use Development

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PARCEL NUMBER	NAME	ADDRESS
16I02058R	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058Q	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058P	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058O	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058N	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058M	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058L	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058K	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058J	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058I	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058H	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02008K	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02008Z	COUNTY OF JOHNSTON	PO BOX 1049 SMITHFIELD, NC 27577-0000
16I02023D	NAPIER, SEAN	313 COLLINSWORTH DR CLAYTON, NC 27527-3936
16I02039B	FKH SFR PROPCO J, L.P.	600 GALLERIA PKWY SE STE 300 ATLANTA, GA 30339-8146
16I02023L	PROGRESS RESIDENTIAL BORROWER 6, LLC	PO BOX 4090 SCOTTSDALE, AZ 85261-4090
16I02023M	LEVAN, JEFFREY	312 COLLINSWORTH DR CLAYTON, NC 27527-3935

ADJACENT PROPERTY OWNERS LIST

Project Name: Clayton Mixed Use Development

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PARCEL NUMBER	NAME	ADDRESS
16I02023N	SFR JV-2 2023-1 BORROWER LLC	15771 RED HILL AVE STE 100 TUSTIN, CA 92780-7333
16I02023T	SVADEBA, JASON T	208 COLLINSWORTH DRIVE CLAYTON, NC 27520-0000
16I02023R	BUCKMAN, DIANE C	216 COLLINSWORTH DRIVE CLAYTON, NC 27527-0000
16I02023Q	WEST, JAMES A	220 COLLINSWORTH DRIVE CLAYTON, NC 27527-0000
16I02023U	WILLIAMS, BARRY A JR	204 COLLINGSWORTH DRIVE CLAYTON, NC 27527
16I02039	AMH 2014-2 BORROWER, LP	23975 PARK SORRENTO STE 300 CALABASAS, CA 91302-4012
16I02009C	FSC I LLC	400 RIVERWOOD DR CLAYTON, NC 27527-0000
16I02008L	RIVERWOOD ATHLETIC CLUB	400 RIVERWOOD DRIVE CLAYTON, NC 27520-0000
16I02023P	OVERBEE, PAUL	300 COLLINSWORTH DR CLAYTON, NC 27527-3935
16I02023S	RADCLIFF, JENNIFER F	212 COLLINSWORTH DRIVE CLAYTON, NC 27527-0000
16I02023O	AMH NC PROPERTIES, LP	23975 PARK SORRENTO STE 300 CALABASAS, CA 91302-4012
16I02023V	PROGRESS RESIDENTIAL BORROWER 18, LLC	PO BOX 4090 SCOTTSDALE, AZ 85261-4090
16I02039A	PROGRESS RESIDENTIAL BORROWER 4, LLC	PO BOX 4090 SCOTTSDALE, AZ 85261-4090
16I02047T	GANDHI AT RIVERWOOD LLC	9201 LEESVILLE RD, STE 201 RALEIGH, NC 27613-0000
16I02047U	RIVERWOOD LAND COMPANY LLC	PO BOX 31827 RALEIGH, NC 27622-0000
16I02057C	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02049D	RIVERWOOD HAVEN ASSOCIATES LLC	400 RIVERWOOD DR CLAYTON, NC 27527-5500

ADJACENT PROPERTY OWNERS LIST

Project Name: Clayton Mixed Use Development

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PARCEL NUMBER	NAME	ADDRESS
16I02057D	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02057G	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058E	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059E	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059K	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058D	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02057E	RIVERWOOD RANCH TOWNHOMES, LLC	114 W MAIN ST CLAYTON, NC 27520-2321
16I02058G	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058U	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059A	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059F	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059N	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059G	RIVERWOOD RANCH TOWNHOMES, LLC	PO BOX 469 CLINTON, NC 28329-0469
16I02059I	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02057B	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058V	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271

ADJACENT PROPERTY OWNERS LIST

Project Name: Clayton Mixed Use Development

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PARCEL NUMBER	NAME	ADDRESS
16I02058W	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059C	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059D	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059J	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059M	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058F	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059B	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02047Z	RIVERWOOD RANCH, LLC	114 W MAIN ST CLAYTON, NC 27520-2321
16I02058T	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02057F	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058X	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058Z	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02059H	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02047V	SAMPSON - BLADEN OIL COMPANY, INCORPORATED	PO BOX 469 CLINTON, NC 28329-0469
16I02053P	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02057A	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02058Y	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271

ADJACENT PROPERTY OWNERS LIST

Project Name: Clayton Mixed Use Development

The following are all the persons, firms, or corporations owning property within 300 feet and immediately adjacent to the property (including across street rights of way) subject to this request. Where the subject property immediately adjoins a public or private right-of-way, landscape or riparian buffer, commonly-owned private area, public property, or homeowners' association property, then letters of notification shall be sent to adjoining property owners as if they directly abut the subject property. Please use a separate sheet if necessary

It is the responsibility of the applicant to correctly identify the current owner, based upon records in the Johnston County GIS Office, for all property owners of land within the required public notice radius.

PARCEL NUMBER	NAME	ADDRESS
16I02059L	RIVERWOOD RANCH TOWNHOMES, LLC	2102 PRITCHARD RD CLAYTON, NC 27527-9271
16I02008A	PROFESSIONAL RESOURCE DEVELOPMENT, INC DBA	PO BOX 768 EFFINGHAM, IL 62401-0768
16I02008H	RIVERWOOD COMPANY LLC	PO BOX 31827 RALEIGH, NC 27622-0000
16I02008J	RIVERWOOD ATHLETIC CLUB	400 RIVERWOOD DRIVE CLAYTON, NC 27520-0000
16I02046O	DAILY, SEAN RDAILY, CAROLINE W	212 SWANN TRL CLAYTON, NC 27527-5599
16I02046P	NAPIER, AUGUSTENAPIER, ATLANTA	208 SWANN TRL CLAYTON, NC 27527-5599
16I02046N	GUTIERREZ, GERMAN GONZALEZ	216 SWANN TRL CLAYTON, NC 27527-5599
16I02023C	YAMASA CO., LTD.	PO BOX 4090 SCOTTSDALE, AZ 85261-4090
16I02023B	RM1 SFR PROPCO A, L.P.	600 GALLERIA PKWY STE 300 ATLANTA, GA 30067-8261
16I02023A	MOMANYI, GODBERMOMANYI, CASSANDRA V	301 COLLINSWORTH DR CLAYTON, NC 27527-3936

DOMINIUM

375 Northridge Road
Suite 500
Sandy Springs, GA 30350

Banks Collier
Direct Dial: 404-205-8095
E-Mail: Banks.Collier@Dominiuminc.com

December 20, 2024

Dear Clayton Area Property Owner:

The purpose of this letter is to notify you of an upcoming application to be filed with the Town of Clayton for a development proposal and proposed rezoning at the southwest corner of Pritchard Road and Athletic Club Blvd. Per Town of Clayton regulations, a Neighborhood Meeting for nearby property owners will be held to provide information about the proposal. A representative of the applicant will be present to explain their application, answer questions, and solicit comments.

Meeting Date: **January 14, 2025**

Meeting Time: **6:00pm**

Meeting Location: **Virtual (Webex), *see meeting information on back of letter***

Type of Application: **Conditional Rezoning Application**

Project/proposal property address: **SW of Pritchard Rd between Swann Trail & Athletic Club Blvd**

Description of project/proposal: **New construction, 167-unit independent senior living facility, & neighborhood retail.**

Upcoming public meetings for this application: **Planning Board, March 24, 2025 (tentative).**

At a minimum, the following will be available for your inspection at the Neighborhood Meeting:

1. A copy of the project application.
2. A schedule of upcoming public meetings for the application.
3. A map at scale of the project and shows neighboring properties and roads.
4. A map, drawing, or other depiction of the proposed development proposal.

A map is enclosed with this letter showing the location of the property that is subject to this application. If you have any questions prior to or after this meeting, you may contact us at (404) 205-8095. You may also contact the Town of Clayton Planning Department at (919) 553-5002.

Sincerely,

Shaun Reinhardt - Vice President and Banks Collier – Development Manager

Cc: Town of Clayton Planning Department

Webex Meeting Information (1/14/2025):

Join from the meeting link

https://dominium.webex.com/dominium/j.php?MTID=m7633dcf18aa1f8f2f7ae50796e9be949

Join by meeting number

Meeting number (access code): 2536 328 0051

Meeting password: HXmKM7epd45

Tap to join from a mobile device (attendees only)
+1-415-655-0002,,25363280051## US Toll

Join by phone
+1-415-655-0002 US Toll

Join from a video system or application
Dial 25363280051@dominium.webex.com
You can also dial 173.243.2.68 and enter your meeting number.

Please contact Banks Collier at Banks.Collier@Dominiuminc.com if you would like to be added to the meeting invitation via email.

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: Clayton Mixed-Use Development

Application: Conditional Rezoning

Location/Date: January 14, 2025 WebEx https://dominium.webex.com/dominium/j.php?MTID=m03d80a887ebf560501a56774f630220b

	NAME	ADDRESS
1	Becky Williams	Neighbor, rbwilliams1003@gmail.com
2	David Batten	Neighbor, no email address given.
3	Ken Wagner	Neighbor, Kenwag1963@aol.com
4	Aly Burr	Applicant Consultant, aly@staywild.com
5	David DeYoung	Neighbor, dave@staywild.com
6	Keith Robbins	Applicant Consultant, keith@strongrockgroup.com
7	Mike Riley	Applicant Consultant, mriley@martinriley.com
8	Jim Anthony	Applicant Consultant, janthony@apgcre.com
9	Andrew Plato	Applicant Consultant, andrew.plato@kimley-horn.com
10	Kevin Dean	Applicant Consultant, kevin.dean@kimley-horn.com
11	Shaun Reinhardt	Development Team, Shaun.Reinhardt@dominiuminc.com
12	Banks Collier	Development Team, Banks.Collier@dominiuminc.com
13	Adria Hollis	Development Team, Adria.Hollis@dominiuminc.com
14		
15		
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20		

Docusign Envelope ID: C8FCBEFC-E09C-4D76-9914-840F196F0FB0

NEIGHBORHOOD MEETING SUMMARY FORM

FILL OUT THE FOLLOWING:

Application:	Conditional Rezoning
Date of Mailing:	December 20, 2024
Date of Meeting:	January 14, 2025 Time of Meeting: 6PM - 8PM
Location of Meeting:	WebEx
Printed Name:	Shaun Reinhardt Signature: DocuSigned by: Shaun Reinhardt DE5B38FB69C3411...

Meeting Summary/Minutes: *provide a summary of the discussion held at the meeting, including issues raised and any resolution discussed, and any changes made to the application as a result of the meeting.*

Please reference Exhibit A - Neighborhood Meeting Minutes/Summary.

Please write clearly (or submit a typed summary). Use additional sheets if necessary.

Exhibit A- Neighborhood Meeting Minutes/Summary

Neighborhood Meeting Recording: Please access neighborhood meeting using this Dropbox Link.

Meeting Chapters:

- 00:00:00 Introduction and Housekeeping
- 00:15:24 Introduction and Team Overview
- 00:17:57 Dominium's Introduction and Project Overview
- 00:24:13 Neighborhood Retail Development
- 00:28:24 Affordability and Design
- 00:34:35 Traffic Studies and Amenities
- 00:45:56 Affordable Housing and Property Value
- 00:55:18 Q&A Session with Residents
- 00:58:08 Impact of Construction Process
- 00:60:00 Clarifications and Final Questions

Resident Questions/Comments and Applicant Responses:

- **What type of "affordable" will the property be and how will the project be funded? Will it be funded with government funding like HUD or CDBG dollars or privately funded?**
    - This project will be financed through low-income housing tax credits, tax-exempt bonds, and traditional construction and permanent financing. This project will not be Section 8. Under the tax credit program, private developers are able to subsidize their development costs through tax reduction incentives.
    - This community would be income-qualified, which means future residents are required to have annual earnings at or below the limits set by the state and federal housing agencies relative to their household size.
    - Dominium does not have control over the rents we charge each year, and the rents are set based on the incomes you see below. Rents are posted each year by the federal and state housing agencies and are based entirely on area median income where the community is located.
    - As you can see here, residents that income qualify would pay anywhere from $1,405 to $1,743 a month in rent inclusive of all utilities.

DOMINIUM

Raleigh-Cary, NC MSA	
	2025 Income Limits
1 person	$54,240
2 people	$61,980
3 people	$69,720
4 people	$77,460
	2025 Gross Rents
1 bedroom (1.5)	$1,452
2 bedrooms (3.0)	$1,743

- Outside of income qualifications, residents are also required to undergo a standard application process inclusive of a background check, credit review, former residential history check, and prove they earn 2x the posted rent per month to qualify to live in a Dominium community.
    - For seniors specifically, assets can also equate to selling a home, savings account, or retirement fund.
- This project will bring a level of affordability to Clayton that will support seniors over the long term. The project must and will remain affordable for a minimum term of 30 years.

- **Will there be policies or stipulations that prevent residents who do not meet the 55+ age requirement from occupying units?**
    - The property will be managed by Dominium Management Services ("DMS"), the Applicant's property management division. The Applicant has a strict tenant selection plan that outlines the terms of tenant occupancy, which includes age requirements for applicable properties. These requirements are also specified in tenants' lease agreements. If a tenant is found to be in violation of their lease agreement, the tenant could either be fined or possibly evicted.
- **How will we mitigate the adverse impact to nearby property owners? These adverse impacts could be property tax impacts, lowered property values, neighborhood characteristic impacts, etc.**
    - Research demonstrates that properties that are well maintained and well managed have no adverse impact on property values. Various reports find that property values stayed the same or continued to increase at their expected rate when well-maintained LIHTC communities are built in an area. Studies have shown that in cases where property values didn’t improve, the LIHTC community was not being well maintained by its owners and there was no oversight from the local government to improve conditions—neither of those things are true with our communities.
    - The proposed property will be managed by Dominium Management Services ("DMS"), the Applicant's property management division. DMS often exceeds the expectations of standard property management. Combined with the thoughtful approach to development of a new project, both the development and property management arms

of Dominium help communities create strong, successful, and long-term housing outcomes.

- **What contribution will the proposed community make to the neighborhood, such as with the local Riverwood HOA?**
    - The Applicant anticipates entering into an agreement at a future date, which would include a to-be-determined payment that accounts for resident use of Riverwood amenities.
- **What is the project (construction, closing, and stabilization) timeline?**
    - The Applicant plans to close on loan financing and land purchase in November 2025. Construction is slated to take place over the course of 20 months with an estimated completion of Q3 2027. The Applicant anticipates that the residential community will be fully leased up and stabilized in Q1 2028.
- **Attendee posed question about how blasting and geotechnical work during the pre-development and development process would affect neighboring homes.**
    - The Applicant takes industry best practices to ensure resident and neighbor safety, especially throughout the initial due diligence/pre-development process. The Applicant retains third party engineering and environmental consultants for all new construction and acquisition projects to understand the scope of work needed. The Applicant previously consulted with specialists to receive land surveys, soil reports, geotechnical reports, etc. to understand site conditions and potential topographical challenges. Results of those analyses yielded no considerable topographical or environmental challenges that would result in significant sitework being needed, such as blasting.
- **The attendee noted that Riverwood Haven Senior Apartments is across the street. The attendee posed the following question: "Why do we need another (affordable apartment community)?"**
    - The Applicant is familiar with the neighboring community, and through extensive market research, has found that the property and others alike are operating with extensive waitlists. Supply is extremely scarce in relation to the exceeding demand of quality, affordable housing.
- **What will be the day-to-day impact of this development during the construction process relative to noise and peak hour traffic?**
    - The Applicant takes industry leading strides to ensure resident and neighborhood safety. Regarding site work that will take place during the construction period, the approach to this will be no different. The Applicant plans to coordinate with its general contractor and subcontractor partners to ensure optimal resident and site safety, specifically regarding machinery and traffic. The Applicant anticipates that site work

noise will be during the hours of 9AM – 5PM, minimizing morning and late evening disruptions to neighboring single family residences.

- **Does the Applicant plan to partner with local general contractors or bring partner with general contractors and sub-contractors from other states on the project?**
    - The Applicant plans to utilize WD Construction, an established joint venture partnership between the Applicant and Weis Builders, as the supervising general contractor on the project. The Applicant plans to engage local sub-contractors in the construction bidding process given their knowledge of the local landscape, local construction market, and relationships with surrounding industry professionals. The Applicant has also retained engineering consultants that are local to the Clayton and wider Raleigh market.
- **Attendee posed a question regarding the date for the planning meeting for the Town of Clayton. The attendee asked if the proposed development would be up for discussion, and if residents would be invited to attend.**
    - Applicant aims to target a March Planning Commission meeting, followed by an April Town Council meeting. This timeline is subject to the Town of Clayton's review of the rezoning application. These meetings are open to the public.

Other Comments

- Neighbors expressed support for parallel parking along Collinsworth Drive as opposed to bike lines, which are requested in the town code. This is a favorable alternative due to the preference to park along Collinsworth Drive for convenient elementary and middle school car pickups and drop-offs.

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

August 8, 2025

PUBLIC NOTICE

SUBJECT: **Project:** 2025-010CZM Clayton Mixed Use / Dominium Conditional Rezoning

Location: Corner lot of Pritchard Road, Swann Trail, Waterfield Drive, and Collingsworth Road

PIN #: 177000-18-0722

Applicant: Dominium Development and Acquisition, LLC – Shaun Reinhardt

Dear Clayton Area Property Owner:

Notice is hereby given that the Clayton Town Council will hold a public hearing on Monday, August 18th, 2025 at 6:00 PM in the Council Chambers at Town Hall, 111 E. Second Street, regarding the Class 3, Conditional Rezoning with a Concept Plan, for Clayton Mixed Use / Dominium.

This application is a request to rezone approximately 8.3 acres from Corridor Commercial (CRM) to Conditional Commercial (CZC). The property is located at the corner of Pritchard Road, Swann Trail, Waterfield Drive, and Collingsworth Road. The proposed project includes a mixture of two uses: an affordable, senior living multi-family development and an associated 6,405 sq ft commercial building.

Based upon records in the Johnston County Tax Office, you are the owner of property that is within 300 feet of this proposed rezoning request. You are invited to attend this hearing and express your opinions on this request to the Town Council.

If you should need additional assistance or information, please contact the Planning Department at (919) 553-5002 or email me at kmallo@townofclaytonnc.org

Sincerely,

Karen Morgan Mallo, AICP
Planning Services Consultant
Town of Clayton

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

8 de agosto de 2025

AVISO PÚBLICO

ASUNTO: **Proyecto:** 2025-010CZM Rezonificación Condicional para el Uso Mixto/Dominio de Clayton

Ubicación: Esquina de Pritchard Road, Swann Trail, Waterfield Drive y Collingsworth Road

N.° de PIN: 177000-18-0722

Solicitante: Dominium Development and Acquisition, LLC – Shaun Reinhardt

Estimado propietario de una propiedad en el área de Clayton:

Por la presente, se notifica que el Ayuntamiento de Clayton celebrará una audiencia pública el lunes 18 de agosto de 2025 a las 18:00 h en la Sala del Ayuntamiento, ubicada en 111 E. Second Street, sobre la Rezonificación Condicional de Clase 3 con un Plan Conceptual para el Uso Mixto/Dominio de Clayton.

Esta solicitud solicita la rezonificación de aproximadamente 8.3 acres de Corredor Comercial (CRM) a Comercial Condicional (CZC). La propiedad se encuentra en la esquina de Pritchard Road, Swann Trail, Waterfield Drive y Collingsworth Road. El proyecto propuesto incluye una combinación de dos usos: un desarrollo multifamiliar asequible para personas mayores y un edificio comercial asociado de 6,405 pies cuadrados.

Según los registros de la Oficina de Impuestos del Condado de Johnston, usted es el propietario de la propiedad que se encuentra a menos de 300 pies de esta solicitud de rezonificación propuesta. Le invitamos a asistir a esta audiencia y a expresar su opinión sobre esta solicitud al Ayuntamiento.

Si necesita ayuda o información adicional, comuníquese con el Departamento de Planificación al (919) 553-5002 o envíeme un correo electrónico a kmallo@townofclaytonnc.org

Atentamente,

Karen Morgan Mallo, AICP
Consultora de Servicios de Planificación
Municipio de Clayton

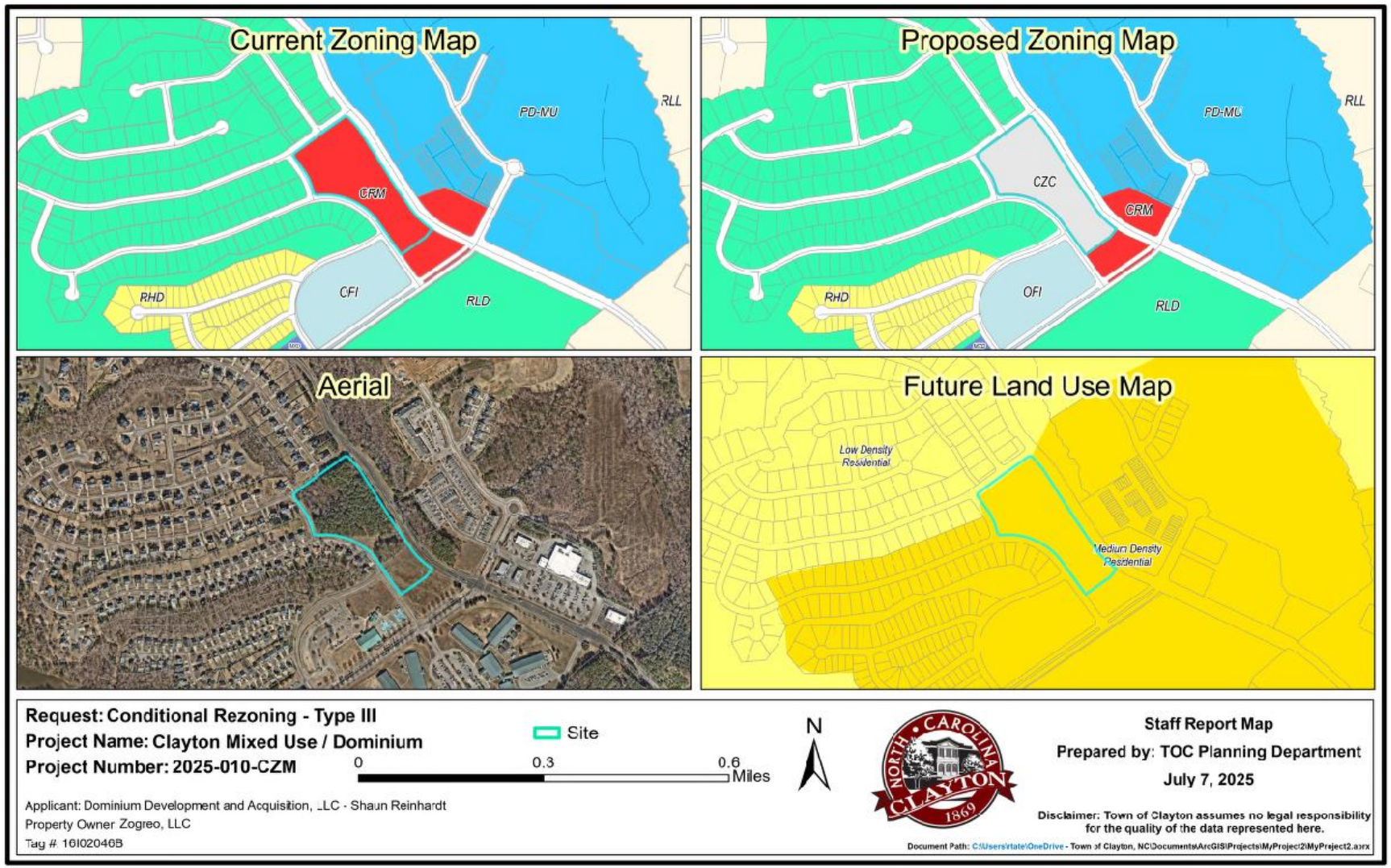

Current Zoning Map
PD-NU
RLL
CRM
RHD
CFI
RLD
Proposed Zoning Map
PD-MU
RLL
CZC
CRM
RHD
OFI
RLD
Aerial
Future Land Use Map
Low Density Residential
Medium Density Residential
Request: Conditional Rezoning - Type III
Project Name: Clayton Mixed Use / Dominium
Project Number: 2025-010-CZM
Site
0
0.3
0.6
Miles
N
Staff Report Map
Prepared by: TOC Planning Department
July 7, 2025
Applicant: Dominium Development and Acquisition, LLC - Shaun Reinhardt
Property Owner Zogreo, LLC
Tag # 16I02046B
Disclaimer: Town of Clayton assumes no legal responsibility for the quality of the data represented here.
Document Path: C:\Users\rtate\OneDrive - Town of Clayton, NC\Documents\ArcGIS\Projects\MyProject2\MyProject2.aprx

EXHIBIT A

CLAYTON - PRITCHARD ROAD MIXED-USE

CLAYTON, NC

EXISTING SINGLE FAMILY
ZONING: RLD

MONUMENT SIGN AT ENTRANCE

4" DOMESTIC WITH 3" METER AND BFP 4" FIRE LINE IN VAULT. WE WILL APPLY TO CITY COUNCIL FOR APPROVAL OF 4" METER PRIOR TO PERMIT REVIEW SUBMISSION.

1.5" IRRIGATION METER

2 LANE UNDIVIDED WITH CURB & GUTTER, BIKE LANE, AND SIDEWALK (SECTION NO. 2B)

EXISTING SINGLE FAMILY
ZONING: RLD

DETENTION POND w/ CONTROL WEIR PIPED TO EXISTING STORM SYSTEM

OVERFLOW

HEADWALL TO BE REPLACED WITH MANHOLE STRUCTURE

TRASH CART AREA - TO BE USED ONLY ON PICKUP DATES. ADDITIONAL SCREENING IN TREE ISLANDS

TRASH COMPACTORS AND CARTS - LOCATED INSIDE BUILDING

STORM DRAINAGE

EXISTING SINGLE FAMILY
ZONING: RLD

MULTI-USE PATH

2 LANE UNDIVIDED WITH CURB & GUTTER, BIKE LANE, AND SIDEWALK (SECTION NO. 2B)

EXISTING UTILITIES WILL BE CONFIRMED IN THE FIELD PRIOR TO PERMIT REVIEW SUBMISSION

ELWAY DR

SWANN TRAIL

WATERFIELD DR

PRITCHARD RD

ENHANCED STREETSCAPE BUFFER WITH ADDITIONAL SHRUBERY, TYP AT ALL STREETS.

CENTRAL GREEN SPACE/ PASSIVE OPEN SPACE (14151 +/- S.F.)

MULTI-USE PATH

ATHLETIC COURT/ SEATING AREA (11695 +/- S.F.)

CL OF EXISTING R/W

EXISTING R/W (80')

PROPOSED R/W (110')

PROPOSED PERIMETER SETBACK (20')

EXISTING FIRE HYDRANT

UNDEVELOPED
2102 PRITCHARD RD
ZONING: PD-MU

3-STORY BLDG.
167 UNITS
TOTAL S.F. - 186,433

CLUBHOUSE/COMMON AREA 9,591SF (INCLUDES COVERED PORCH)

TRASH COMPACTORS AND CARTS - LOCATED INSIDE BUILDING

FUTURE 4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS (SECTION NO. 4A)

EDGE OF EXISTING PAVEMENT / START OF 5' BIKE LANE

100' DECEL LANE WITH 100' TAPER

4 BIKE RACKS

6 BIKE RACKS

2 EV CHARGING STATIONS

6" LATERAL - SANITARY SEWER

MONUMENT SIGN AT ENTRANCE

SANITARY SEWER CONNECTION FOR HOUSING

2 LANE UNDIVIDED WITH PARALLEL PARKING, C&G, AND SIDEWALK SECTION NO. 2B

STORM DRAINAGE

EXISTING SINGLE FAMILY
ZONING: RLD

TRASH CART AREA - TO BE USED ONLY ON PICKUP DATES. ADDITIONAL SCREENING IN TREE ISLANDS

NCDOT DRIVEWAY PERMIT WILL BE REQUIRED FOR ACCESS ALONG PRITCHARD RD

COLLINSWORTH DR

MANNING DR

EXISTING SINGLE FAMILY
ZONING: RLD

6" SANITARY SEWER CONNECTION FOR COMMERCIAL

1.5" METER FOR COMMERCIAL WITH BFP IN VAULT

MULTI USE DEVELOPMENT
2102 PRITCHARD RD
ZONING: PD-MU

RIGHT IN RIGHT OUT BARRIER ISLAND

SIGHT TRIANGLES - TYP. AT ALL SITE ENTRANCES

PLAZA/ OUTDOOR DINING 5,197 +/- SF

MULTI-USE PATH

SCREENED-IN DUMPSTER & RECYCLING w/ ADDITIONAL LANDSCAPE TO BUFFER THE VIEW FROM PRITCHARD ROAD

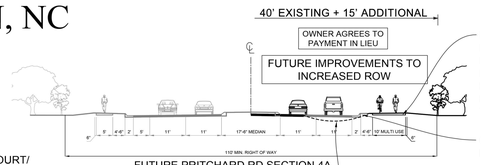
COMMERCIAL 6,405 S.F.

6" LATERAL - SANITARY SEWER

EXISTING RETAIL UNDER DEVELOPMENT BY OTHERS

EXISTING OFFICE INSTITUTIONAL
400 RIVERWOOD DR
ZONING: O-I

EXISTING EDUCATION
ZONING: RLD

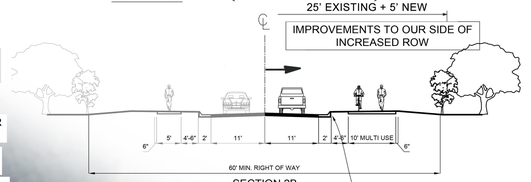


FUTURE PRITCHARD RD SECTION 4A
NOT TO SCALE

MULTI-USE PATH TO BE PROVIDED AS PART OF PROJECT CONSTRUCTION. PAYMENT IN LIEU WILL BE FOR ANY ADDITONAL FUTURE IMPROVEMENTS TO PRITCHARD RD.

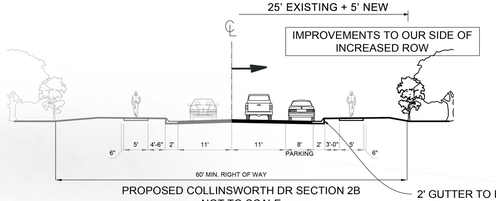
6" CURB TO BE LOCATED IN 4'-6" LANDSCAPE STRIP AS PART OF FUTURE IMROVEMENTS

EXISTING SWALE TO REMAIN UNTIL FUTURE IMPROVEMENTS



SECTION 2B
NOT TO SCALE

6" CURB TO BE LOCATED IN 4'-6" LANDSCAPE STRIP



PROPOSED COLLINSWORTH DR SECTION 2B
NOT TO SCALE

2' GUTTER TO BE INSTALLED, 6" CURB TO BE LOCATED IN 3'-0" LANDSCAPE STRIP

SITE INFORMATION:

APARTMENT ACREAGE:		7.13 +/- ACRES (310,582.8 SQFT)
COMMERCIAL ACREAGE:		1.00 +/- ACRES (43560.0 SQFT)
OVERALL ACREAGE:		8.13 +/- ACRES (354,142.8 SQFT)
ZONING:	EXISTING	= CRM
	PROPOSED	= CZC
DENSITY:		= 23.42 U/A
BUILDINGS:		(1) 3-STORY SENIOR APARTMENT BUILDING
		(1) 1-STORY 6,405 SQ.FT COMMERCIAL BUILDING

PARKING:

92	SPACES @ 1 SPACE PER 1-BEDROOM UNIT
94	SPACES @ 1.25 SPACE PER 2-BEDROOM UNIT
42	SPACES @ .25 VISITOR SPACE PER TOTAL UNITS
228	REQUIRED SPACES FOR SENIOR BLDG
26	SPACES @ 1 SPACE PER 250 SQ. FT. OF COMMERCIAL AREA
254	TOTAL PARKING SPACES REQUIRED

PROVIDED PARKING:

199	RESIDENTIAL PARKING SPACES
47	COMMERCIAL PARKING SPACES
246	TOTAL PARKING SPACES

27 ADDITIONAL ON STREET PARKING SPACES

**REDUCTION IN PARKING BY 15% AVAILIABLE WITH SUSTAINABLE DEVELOPMENT INCENTIVE

12 BICYCLE SPACES REQUIRED FOR RESIDENTIAL
2 BICYCLE SPACES REQUIRED FOR COMMERCIAL
10 BICYCLE SPACES PROVIDED 6 AT COMMERCIAL
4 AT RESIDENTIAL

SETBACKS: = 20' (AROUND PERIMETER)

BUILDING INFORMATION:

RESIDENTIAL SF:	149,923 SF
RECREATIONAL SF:	6,836 SF
CIRCULATION SF:	27,944 SF
MAINT./OFFICE SF:	1,730 SF

UNIT INFORMATION:

Unit Type	No. of Units
1 BEDROOM "A1"	89
1 BEDROOM "A2"	3
2 BEDROOM "B1"	48
2 BEDROOM "B2"	4
2 BEDROOM "B3"	18
2 BEDROOM "B4"	3
2 BEDROOM "B5"	2
Total	167

OPEN SPACE SET ASIDE:

CLUBHOUSE/ COMMON SPACE:	9591 +/- S.F.
ATHLETIC COURT:	11695 +/- S.F.
CENTRAL GREEN SPACE:	14151 +/- S.F.
PLAZA/OUTDOOR SPACE:	5197 +/- S.F.
TOTAL OPEN SPACE SET ASIDE:	40,635+/- S.F.
REQUIRED:	≥ 5% OF SITE (17,707 +/- SQFT)
PROPOSED:	11.5% OF SITE (40,635 +/- SQFT)

MAX LOT COVERAGE:

REQUIRED:	75% MAXIMUM COVERAGE
PROVIDED:	21% LOT COVERAGE

THE NUMBER AND LOCATION OF PROPOSED LANDSCAPING WILL BE DETERMINED AND VERIFIED AT SITE PLAN. THE LANDSCAPING SHOWN ON THE CONCEPT PLAN IS TO INDICATE GENERAL AREAS WHERE LANDSCAPING WILL BE PROVIDED (E.G. PARKING LOTS, STREETSCAPE BUFFERS, ETC).

SITE IMPROVEMENTS SHOWN ON THE ON THE CONCEPT PLAN ARE CONSIDERED CONCEPT IN NATURE AND SHALL BE REVIEWED FOR COMPLIANCE WITH ORDINANCE STANDARDS AT TIME OF SITE PLAN / CD APPLICATION. THIS INCLUDES LANDSCAPING, SIGNS, OPEN SPACE AND OTHER DESIGN STANDARDS IN CHAPTER 6

DEVELOPMENT IS SUBJECT TO THE MULTI-FAMILY AND NON-RESIDENTIAL DESIGN STANDARDS OF THE UDO (SECTIONS 6.2.4 AND 6.2.5) UNLESS OTHERWISE CONTAINED IN THE CONDITIONS OF APPROVAL.

THE APPLICANT INTENDS TO INCORPORATE ADDITIONAL LANDSCAPING TO BUFFER THE VIEW OF THE DUMPSTER ENCLOSURE FROM PRITCHARD ROAD IN ACCORDANCE WITH ORDINANCE STANDARDS.

NORTH
0 25' 50' 100'
SCALE: 1:50

SHEET REVISION LOG

PROJECT NUMBER 2023-054
DATE ISSUED 07-08-2025
DRAWN BY NDH
CHECKED BY MRL

MARTIN RILEY ASSOCIATES - ARCHITECTS, P.C.
100 CRESCENT CENTRE PARKWAY, SUITE 220 TUCKER, GA 30084

CLAYTON SENIOR APARTMENTS
CLAYTON, NC

ARCHITECTURAL CONCEPTUAL SITE PLAN

CSP.1

CLAYTON, NC: 2025-010-CZM

Conditions of Approval (2025-010-CZM – Dominium – Clayton Mixed-Use)

1. The Project shall meet all applicable adopted Town of Clayton Unified Development Ordinance (UDO) requirements, Town of Clayton Manual of Standards, Specifications and Details, and the North Carolina Fire Code and NFPA Fire standards, except where specifically modified by the approved Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A) and Conditions of Approval.

2. The Project shall be constructed in substantial conformance with the accompanying Concept Plan, prepared by Martin Riley Associates, P.C., 7-8-2025, included as Exhibit A and as approved by the Clayton Town Council. Minor modifications to the Concept Plan, (Exhibit A) and Concept Plan Narrative may be approved administratively by the Planning Director pursuant to UDO Section 2.3.7.P , as amended.

3. Site features shown on these plans and listed in the Conditions of Approval run with land. The Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), and Conditions of Approval for this project shall allow for any changes in Town zoning regulations that create a nonconforming site feature as that term is defined in UDO Section 5.4.1(B), except for those site features and conditions aforementioned.

4. With the exception of the site features on the associated Concept plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A) and those conditions listed herein, the Project and associated development applications shall adhere to Town adopted policies and ordinances that are in effect at the time of their submittal and acceptance for review.

5. To the extent of any conflict between the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A) and these Conditions of Approval, these Conditions shall control.

6. To the extent permitted by law, in the event that a site plan for some portion of the development contemplated in a Conditional Rezoning application has not been submitted and accepted for review within three (3) years from the date of the approval, the Town Council may initiate a rezoning application to return the land to its prior or to some other appropriate zoning district designation.

7. Multi-family dwellings are permitted and shall be limited to age-restricted residential uses which meet the federal Fair Housing Act definition of Housing for Older Persons.

8. The maximum residential density on the property shall be 23.5 dwelling units per acre.

9. The multi-family development shall be certified under the EnergyStar Multi-Family New Construction Program.

10. The building design shall incorporate at least four (4) of the architectural elements listed in UDO Section 6.2.4.D.4 on street facing facades. The four architectural elements shall include the following: Pillars, Posts, Pilasters; multiple windows with a minimum of four-inch trim; eaves with a minimum of four-inch-wide trim; and awnings or overhangs.

11. A minimum 5% of the lot set aside for Active Open Space consistent with the CRM Zoning District standards per Town of Clayton UDO Section 6.7. Active Open Space shall be satisfied by the following:
    a. Multi-Family Development:
        i. Athletic fields and courts. – +/- 11,695 S.F.

ii. Clubhouse/Common Space – +/- 9,591 S.F.
iii. Central Green Space – +/- 14,151 S.F.

b. Commercial Development:
i. Plaza/Outdoor Dining Area – +/- 5,197 S.F.

12. The proposed mixed-use development shall include the following Sustainable Development Practices per Town of Clayton UDO Section 6.17.4 to reduce the parking by up to 15%. The Applicant shall demonstrate compliance with these incentives prior to issuance of Certificates of Occupancy.

a. Schedule (A) – Energy Conservation – Use of central air conditioners that are Energy Start qualified. Applicant shall provide the provision of the manufacturer's certification statement as documentation of compliance prior to the issuance of a Certificate of Occupancy.
b. Schedule (A) – Construction of principle structure in accordance with Barrier Free Design Standards (ANSI A1171.1). The applicant shall demonstrate compliance on Construction Drawings or prior to issuance of a Building Permit
c. Schedule (B) – Building Configuration – Includable operable windows on all multi-family building sides. The applicant shall demonstrate compliance on the Construction Drawings or prior to the issuance of a building permit.
d. Schedule (B) – Building Configuration – Inclusion of 2 to 4 dedicated off-street parking spaces devoted to electrical vehicle charging via a level 1 or level 2 EV charging station. For the proposed multi-family development, the Applicant shall reserve two (2) parking spaces for Electric Vehicle (EV) parking. The two parking spaces reserved for EV parking shall be served by an electrical conduit that shall serve EV charger(s) and shall meet either Level 1 or 2 charging station requirements, which shall be installed by the Applicant. The applicant will demonstrate compliance on Construction Drawings or prior to the issuance of a Building Permit.

13. The proposed multi-family and commercial developments are consistent with the Listing of Common Principal Uses for residential and commercial classifications established in UDO Table 4.2.5, as amended, except as noted in the Conditions of Approval. Further the commercial portion of the site shall be limited to only the following uses as consistent with conditional uses allowable under the CZC zoning district:

a. Bottle Shop (on-premise consumption)
b. Catering Establishment
c. Bakery
d. Computer Related Services
e. Day spa (medical or non-medical)
f. Fitness Center
g. Grocery Store
h. Hair, Nail and Skin Related Services.
i. Indoor Commercial Recreation
j. Instructional Services
k. Laundry and Fabric Cleaning
l. Light Equipment Sales, Rental & Repair
m. Micro-Brewery, Micro Distillery, or Micro Winery
n. Office, High Intensity
o. Office, Low Intensity
p. Packaging and Shipping

q. Pharmacy
r. Repair Shop
s. Restaurant (Indoor and Outdoor Seating, Indoor Seating Only, and Walk-Up Service Only)
t. Retail, General
u. Retail, Micro
v. Tanning Salon
w. Business Incubator
x. Maker Space
y. Minor Utility
z. Child Day Care
aa. Outpatient Facility
bb. Urgent Care

14. The Applicant shall provide the following traffic improvements, as listed as herein or as shown on the Concept Plan prepared by Martin Riley Associates, P.C. dated 7-8-2025 (Exhibit A).
    a. As the property is surrounded by public streets, no new streets are proposed. A network of private drives located in the parking lots of the development shall connect the residential and commercial components of the project and connect the project to the adjacent development. Private drives shall be provided with cross-access easements to allow for the free flow of traffic between the residential and commercial components. Such cross-access easements shall be administratively approved by Planning Staff.
    b. Improvements to Pritchard Road
        i. The Applicant shall construct the following road improvements to the Applicant's side of increased ROW along Pritchard Road, which shall be dedicated to the Town of Clayton.
            1. Installation of a 10-foot multi-use path consistent with required future improvements of Pritchard Road ROW per the Town of Clayton Comprehensive Transportation Plan (CTP) cross section 4A, as detailed on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A) or a combination of a 5-foot bike lane and a 5-foot sidewalk, per NCDOT's Typical Section 4G, as referenced in NCDOT's Highway Typical Sections for use in SPOT On!ine.
            2. Exclusive right-turn lane on Pritchard Road with 100 feet of full width storage (inclusive of deceleration length) and appropriate bay taper into the right-in/right-out driveway, with appropriate channelization provided on the driveway, as shown on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 78-2025 (Exhibit A). The Applicant shall coordinate with the Town and North Carolina Department of Transportation (NCDOT) for the required driveway permit.
        ii. A fee-in-lieu of construction shall be paid for improvements noted as "Future Improvements to Increased ROW" on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), consistent with the Typical Section No. 4A per the Clayton CTP prior to release of permits. The fee-in-lieu shall be reduced by costs of improvements to be constructed directly by the Applicant as a part of the Applicant's development of the site that reduces the

cost of those future improvements. The fee-in-lieu shall be determined at the reasonable discretion of engineering staff based on normal customary practices of determining such fees, which shall be based on construction estimates provided by a certified engineer or general contractor.

c. Improvements to Collinsworth Drive
   i. The portion of Collinsworth Drive improved as part of this development shall be expanded and constructed consistent with the road cross-section labeled "PROPOSED COLLINSWORTH DR SECTION," asshown on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A). The Applicant shall construct the following road improvements to the Applicant's side of the increased ROW:
      1. 11-foot drive lane
      2. 8-foot parallel parking, in lieu of 5-foot bike lanes, exclusive of 2'-6" curb and gutter
      3. 5-foot sidewalk
      4. All green spaces in ROW
   ii. Subject to Town staff approval and acquiring all necessary rights-of-way, easements, and/or other permissions, the Applicant shall construct a crosswalk with ADA landings crossing Collinsworth Drive over the northwestern portion of the intersection Collinsworth Drive and Athletic Club Boulevard.

d. Improvements to Swann Trail and Waterfield Drive
   i. The portions of Swann Trail and Waterfield Drive improved as part of this development shall be expanded and constructed consistent with cross-section 2B per the Clayton CTP and detailed on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), or the NCDOT's Typical Section 2E, as referenced in NCDOT's Highway Typical Sections for use in SPOT On!ine. The Applicant shall construct the following road improvements to the Applicant's side of the increased ROW:
      1. 11-foot drive lane
      2. 10-foot multi-use path or combination of a 5-foot bike lane and 5-foot sidewalk
      3. 2-foot 6-inch curb and gutter
      4. All green spaces in ROW

15. A Ground Sign shall be permitted at each of the multi-family building's driveway entrances to the site and shall comply with the Town's signage requirements established in UDO Section 6.13. The maximum number of signs on the multi-family building site may exceed the limits set out in UDO Section 6.13 to allow up to three ground signs on the multi-family building site. Ground signs on Swann Trail and Collingsworth shall not be internally illuminated.

16. The Applicant shall complete a sewer study of the downstream system(s) to determine if improvements or modifications are required in order to serve the project prior to Construction Plan approval. Any related agreements shall also be approved by the Town prior to Construction Plan approval. The Town of Clayton shall not release any water meter for any structure associated with 2025-010-CZM until such time that all downstream off-site water and sewer utility infrastructure improvements have by installed, accepted, and have the ability to accept flow from the site.

17. The 30-foot minimum perimeter setback for multi-building and unified developments established in UDO Sections 3.2.1.C and 3.3.2.B is reduced to 20 feet.

18. The multifamily building and commercial use shall comply with the Use-Specific Design Standards per Town of Clayton UDO Section 6.6.17 Streetscape Buffers with the exception of UDO Section6.6.17.D.2, which requires the provision of a Type C buffer. The multifamily development shall include streetscape buffers along all existing streets in accordance with the Type B buffer.

19. The proposed multi-family building is on property with frontage on three different streets. The building depicted in the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), has been designed to complement the unique geometry of the site and provide entryways on facades facing multiple streets. Building entrances may be constructed consistent with the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), and are not required to be configured to meet the specific entryway requirement of UDO Section 6.2.4.D.3.a., which states the facades of all buildings abutting streets shall be configured so that entryways to individual dwelling units or shared entrances face the street.

20. For the commercial use, Refuse Collection Areas shall be configured to allow access by collection vehicles per the Town's Engineering Specification and Design Manual and shall be designed to meet the Collection Area Configuration Requirements of UDO Section 4.5.5.CC.4, except for the following deviations:

    a. Collection areas configured to be served by vehicles shall be equipped with latching gates, in lieu of self-closing gates. Collection areas shall be screened by landscaping buffers, which shall be approved at the reasonable discretion of the Planning Director.
    b. Collection areas shall be located as noted on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A).

21. The Refuse Collection Areas for the multi-family residential component shall be located within the building, with designated staging areas provided for pick-up on collection days. Staging areas shall be located as noted on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), and buffering methods shall include tree island screening. Collection bins shall not be left outside for a period of more than 24 hours.

22. The multi-family building and commercial use shall comply with the Parking and Loading Standards per Town of Clayton UDO Section 6.9.5; except for the number of spaces provided. The bicycle spaces provided shall be 4 spaces for multi-family development and 6 spaces for the commercial development. The number of regular spaces shall be 246+/-, using up to a 15% reduction through the provision of Sustainable Development Practices.

PROPERTY OWNER AFFIDAVIT

I/We, the undersigned, do hereby certify that I have reviewed the recommended conditions of approval and am/are in agreement with the conditions as they are outlined within this letter.

Shaun Reinhardt		08/08/25
Print Name	*Signature of Property Owner*	*Date*

Signature affirms compliance with Unified Development Ordinance Section 2.3.6.D.1.a and North Carolina General Statutes § 160D-703 (b).

June 22, 2025
Town of Clayton
111 East Second Street
Clayton, NC 27528

RE: Town of Clayton – Conditional Zoning Application – Clayton - Pritchard Road Mixed-Use

Dominium envisions bringing its nearly 50 years of experience, its penchant for quality and pride-producing developments, and careful concern for the success of residents to the community of Clayton, North Carolina. The proposed development will be a mixed-use development including residential and commercial components on an ~8.30-acre site located at the Southeast corner of Swann Trail and Pritchard Road (the "Subject Property"). The commercial component is approximately 6,500 square feet of standalone commercial complementing and integrating with the commercial that is planned adjacent to the site. The residential community will be comprised of a single, three-story conditioned corridor elevator style building for seniors with 167 total units consisting of one and two-bedroom homes.

Over the last year, Dominium has worked closely with the Town and local neighborhood to design a site plan that optimizes both safety and livability for individuals and families in the Riverwood community. The Subject Property has current zoning in place that would allow for a development plan with significantly greater traffic density, being that it is zoned for commercial use. While working with the community, Dominium has created a site with both residential and commercial that strikes a balance between the existing higher density commercial uses that could be developed by right and the desires of the surrounding community. The residential community will use eligibility criteria that is consistent with rent and income data calculated by the United States Department of Housing and Urban Development on a yearly basis. 100% of units will be set aside to elderly persons (55+) earning at or below 60% of the Median Income Area ("AMI"). This targeting enables Dominium to help seniors who are cost-burdened and outpriced within their current communities. Outside of income qualifications, residents are also required to undergo a background check, credit review, former residential history check, and prove they earn 2x the posted rent per month to qualify to live in this community.

In studying the Clayton and wider Raleigh market, Dominium noticed a significant gap for this type of housing. Many aging individuals no longer want to take care of a home but would like to stay close to their families. Often, retirement communities include more services than needed or operate with costly rental options. This development will provide an independent living community where elderly residents can remain close to family, have a host of services and amenities at their leisure, and not be cost-burdened. Dominium plans to incorporate the following community amenities for resident enjoyment: community room, bocce ball, grilling stations, greenspace, fitness center, and a theater room. In-unit features will include Energy-star appliances, granite counter tops, walk-in closets, spacious kitchen islands, ceiling fans, patio or balcony, luxury vinyl plank flooring, and rentable full-size washers & dryers.

Dominium's history and experience is evident in each of these new homes. Through careful examination over time, studying how residents use each space, which amenities make the most impact, and how properties function sustainably, Dominium brings a perfectionist eye to housing. Careful iteration results in standard unit designs, standard construction practices, and overall quality control, allowing better homes for seniors. Believing that quality homes allow for lives with dignity, Dominium sweats the details, making sure that the final product is one that evokes pride in residents and the wider community. Dominium Management Services ("DMS") will manage and provide

services to this community, often exceeding the expectations of standard property management. Combined with the thoughtful approach to development of a new project, both the development and property management arms of Dominium help communities create strong, successful, and long term housing outcomes.

Rezoning Review Criteria

1. If the application is consistent with the applicable standards in Section 3.3, Conditional Zoning Districts, of the Unified Development Ordinance.

Section 3.3.1

The application is consistent with Section 3.3.1.D.4, outside of conditions listed in the Conditions of Approval, and the Applicant has prepared a concept plan in accordance with Section 3.3.1E, Concept Plans associated with a Type 3 Conditional Rezoning.

Under Section 3.3.1.D, the proposed conditions are necessary because the Applicant is proposing a type of housing that is not otherwise specified in the current UDO but provides housing that is otherwise scarce in the Clayton market. This project includes a residential component that is both financially attainable and age restricted for seniors in the community. The approved conditions would allow the project to be both physically and economically feasible, with a design that fits within the surrounding neighborhood.

The approval of less restrictive conditions will result in a development that is in closer alignment with the provisions in Section 1.7, Purpose and Intent of Ordinance, and the Town's adopted policy guidance; and Referenced in Section 1.7. The proposed development is designed to meet the purpose and intent of the ordinance and the Town's adopted policy guidance, as referenced in Section 1.7, by primarily focusing on the following provisions:

- Promoting economic health and well-being.
- Ensuring Town residents have a wide range of housing options that allow for varying income levels and diverse housing preferences.
- Other reasons therein: Creating an innovative senior housing option that is not currently recognized as a distinct housing type within the existing zoning code.

The proposed development is designed to enhance the economic health and overall well-being of local seniors by offering financially attainable rental options and a comprehensive array of in-unit and community amenities. This community will ensure residents have an alternative living option that adheres to varying income levels and will create a type of housing that is not currently developable under the existing UDO.

This community will be financially accessible to seniors in the area through strict rent and income limits. All units will be income- and rent-restricted to individuals earning no more than 60% of the Area Median Income (AMI). This ensures an affordable housing option for seniors who are increasingly priced out of the local market and the greater Raleigh area. Many elderly individuals either cannot or prefer not to maintain a single-family home but are unable to afford market-rate apartments or all-inclusive retirement communities. These seniors are looking to remain near family and friends without the risk of depleting their retirement savings. Current alternatives for seniors are limited to expensive market-rate apartments, high-maintenance and costly single-family homes, or all-inclusive retirement communities that may not be financially feasible for those on fixed incomes. While a few affordable senior housing options do exist in the market, they often

come with long waitlists and limited availability. This proposed community will fill a critical gap in the housing market by offering high-quality, attainable rental housing tailored specifically for seniors. It will provide a solution for those who are increasingly outpriced, allowing them to age in place comfortably, securely, and with dignity.

Resident well-being is a key focus in the design and development of this community. Dominium dedicates significant time and effort to ensuring that each community supports safety, health, and social connectivity. Units are designed with accessibility in mind and include elevator access, well-planned trash and parking facilities, and thoughtful layouts to accommodate mobility needs. In addition, residents will benefit from having an experienced, on-site management team under the same roof. Dominium will not only develop the property but also manage it long-term. With deep expertise in senior housing, Dominium's management team is equipped to meet the daily needs of older adults and provides an environment that prioritizes comfort, convenience, and community. The amenities provided promote the well-being of our senior residents.

Residents will enjoy access to a variety of thoughtfully planned amenities, including:

- A spacious community room featuring a kitchenette, dining area, fireplace, and ample seating for social gatherings with neighbors or family.
- Outdoor green spaces with grilling areas and comfortable seating to enjoy nature.
- A state-of-the-art fitness center equipped with modern exercise equipment to support physical wellness.
- A business center with computers and free Wi-Fi to help residents stay connected.
- Additional leisure amenities such as a library, theater room, and bocce ball court.

Each apartment will be equipped with high-quality features including:

- Energy Star-rated appliances
- Granite countertops
- Walk-in closets
- Spacious kitchen islands
- Ceiling fans
- Patios or balconies
- Luxury vinyl plank flooring
- Rentable, full-size washers and dryers

Section 3.3.1.E

Under UDO Section 3.3.1.E, the Town Council may reduce minimum parking requirements as part of a Type 3 conditional zoning. UDO Section 3.3.1.E also permits Town Council to increase the maximum allowable residential density where "the landowner complies with the applicable provisions of Section 3.5, Incentives and Alternatives."

Consistent with the UDO requirements and Town policy, this rezoning contains zoning conditions requiring the Applicant to incorporate a variety of sustainable development practices into the development that are identified and encouraged by the Town in UDO Section 6.7.14:

- Schedule (A) – Energy Conservation – Use of air conditioners that are Energy Start qualified. Applicant will provide the provision of the manufacturer's certification statement as documentation of compliance prior to the issuance of a Certificate of Occupancy.

- Schedule (A) – Construction of principle structure in accordance with Barrier Free Design Standards (ANSI A1171.1). The applicant will demonstrate compliance on Construction Drawings or prior to issuance of a Building Permit
- Schedule (B) – Building Configuration – Includable operable windows on all building sides. The applicant will demonstrate compliance on the Construction Drawings or prior to the issuance of a building permit.
- Schedule (B) – Building Configuration – Inclusion of 2 to 4 dedicated off-street parking spaces devoted to electrical vehicle charging via a level 1 or level 2 EV charging station. For the proposed multi-family development, the Applicant will reserve two (2) parking spaces for Electric Vehicle (EV) parking. The two parking spaces reserved for EV parking will be served by an electrical conduit that will serve EV charger(s) and will meet either Level 1 or 2 charging station requirements, which will be installed by the Applicant. The applicant will demonstrate compliance on Construction Drawings or prior to the issuance of a Building Permit.

These sustainable development practices require (2) selections from Schedule A and (2) selections from Schedule B. This will provide (2) selections from Schedule A and (2) selections from Schedule B. allowing enough points to secure the reduction in parking. Under UDO Section 6.7.14, the Applicant has the right to use these incentives to either (i) reduce the required off-street parking by 15% or (ii) increase residential density by three dwelling units per acre, from 6 units/acre to 9 units/acre.

The Applicant acknowledges that the proposed project and rezoning application do not meet certain requirements under the current UDO. Dominium will provide mitigation efforts for any potential negative impacts from proposed conditions that are less restrictive than the applicable requirements. Current text amendments are being proposed that will assist in the development of the proposed project by reducing or eliminating certain use standards, allowing residential use in a commercial zoning district, and eliminating a density cap or multi-family uses. It is also the intent of the applicant to provide sustainable development practices to obtain incentives, including decreasing the amount of required parking.

The Applicant intends to mitigate the effects of the following deviations from the UDO as outlined in the proposed efforts below.

- Perimeter Setback: The Applicant has reduced the perimeter setback from 30’ to 20’ to accommodate the unique design and geometry of the site, and more specifically to reduce the impact of the multifamily building from surrounding single family homes. By reducing the perimeter setback to 20’, the multi-family building can be pushed closer to Pritchard Road, further from adjacent single-family homes. To mitigate the effects of this reduction, the Applicant will implement a Type B streetscape buffer along all existing streets.
- Streetscape Buffer: Per the UDO, a Type C streetscape buffer is required for multifamily and commercial developments. The proposed project will include a Type B buffer for both multifamily and commercial uses, inclusive of two canopy trees and two understory trees per 100 linear feet.
- Building Length: The Applicant’s proposed multi-family building length exceeds the 250’ maximum length. To lessen the impact of the increased length, the Applicant has incorporated jogs throughout the building ranging between 11-24 feet to visually separate the building and to enhance the visual appeal from main roadways.
- Outdoor Space: Under the current UDO, each dwelling unit within a multi-family development is required to include a patio, deck, or balcony with a minimum width

or length dimension of no less than seven feet. However, there are eight units that will not meet this requirement due to design constraints such as internally located communal spaces and an external porte chere for pick-ups and drop-off's. To ensure that the living experience of residents in these units will not be adversely affected, community amenities such as the amenity balcony, business center, clubroom, fireplace lounge, etc. are located in closer proximity to these units for resident leisure. In addition, residents will have access to plentiful outdoor amenity spaces such as greenspace, recreational space, grilling spaces, and more.

- Building Entrances: Under the current UDO, building facades that abut public streets must be configured so that entryways to individual dwelling units or shared entrances face the street. Given the proposed project has frontage along three public streets, the Applicant has designed the multifamily building to respond to the site's unique geometry. The multifamily building will include entrances to the main building and directly to first floor units along each street. All entrances will be accessed via key fob and will be well-landscaped and aesthetically pleasing. The main entrance off Collinsworth Drive will include a porte-cochere to accommodate pick-ups and drop-off's for senior residents. A secondary main entrance will be located off Pritchard Road and will lead directly to outdoor recreation spaces. In addition, multiple points of access are located around the entirety of the building and to first floor units directly, to allow closer proximity to resident parking and the minimization of walking distances for senior residents. This design mitigates site and traffic constraints, while emphasizing resident and vehicular safety.
- Refuse Collection:
    - Commercial Use: The Applicant has designed the commercial use with a refuse collection area that will be enclosed and screened by landscaping. By screening this collection area along Pritchard Road, the Applicant can mitigate impacts to single family homes located to the south. The collection area will include latching gates in lieu of self-closing to mitigate maintenance challenges associated with automatic closures of the self-closing gates.
    - Multifamily Residential Use: The multi-family building will include internal refuse collection to accommodate senior residents. Including multiple refuse collection areas inside the building minimizes collection time for senior residents, prevents cluttering, and reduces odors. Management and maintenance teams will be responsible for wheeling collection bins to designated staging areas on pick-up days and will be returned to the building within 24 hours.
- Allowable Density:
    - By increasing the allowable density for the multifamily, the Applicant is able to develop a functionable senior living community. The proposed density allows for a single conditioned building with elevators, a reduced building height and footprint, and the maximization of recreational and living space. The Applicant will not only develop the community, but will also manage the community long-term, ensuring that the community is meeting operational expectations. The Applicant will implement a consistent, standard application process, inclusive of background checks, and will uphold residents to lease provisions, particularly the number of residents within each household. In addition, the Applicant will construct traffic improvements along each roadway to alleviate traffic concerns and limit traffic flow through surrounding neighborhoods.

- Parking Standards:
    - In reducing parking requirements for the multi-family project, the Applicant can develop a community with an optimal parking ratio. Via internal traffic studies and a third-party traffic study specific to the subject development, the Applicant has carefully identified traffic and parking needs. Because senior residents drive less and utilize alternative methods of transportation, residents need less parking. Through this reduction, the project provides sufficient parking for residents without creating a sea of empty parking spaces that create an eye sore for the surrounding community. The commercial component will maintain separate parking spaces that sufficiently meet the needs of commercial use, and will prevent multifamily residents utilizing this parking area, or vice versa. These parking areas are separate but also allow for interconnectivity and walkability. Bicycle spaces will be provided for both the multifamily and commercial spaces. Additional spaces have been allocated to commercial use, given the expectation of increased bicycle traffic.

Section 3.3.2 (CZC) Conditional Commercial

The Applicant is proposing a Type 3 Conditional Rezoning from Corridor Commercial (CRM) to Conditional Commercial (CZC).

Actual permitted uses, conditional uses, use standards, and maximum density for the CZC zoning district are currently being considered by the Town Council as a portion of a UDO Text Amendment and have yet to be determined. Thus, the Applicant is proposing financially attainable age restricted apartment community as part of this rezoning as a conditional use in the CZC zoning district at a residential density of 23.5 units per acre.

3.3.2.B. Dimensional Standards

The proposed development meets the dimensional standards of the CRM, as required by Section 3.3.2.B, with the exception the Perimeter Setback for Multi-Building and Unified Developments. This is required to be 30', but a perimeter setback of 20' is to be provided.

3.3.2.C Allowable Density

The proposed development will have a density of 23.5 residential units per acre. Currently multifamily is not a permitted use in the CZC and therefore a maximum density does not currently exist. The proposed UDO text amendments will permit multifamily residential without a density limit.

3.3.2.D Allowable Uses

Currently, the CZC zoning district does not permit multifamily development as an allowable use. The Applicant is proposing multifamily development as a conditional use of the CZC zoning district. The Applicant is requesting to build multifamily development, a high residential density.

The proposed multi-family and commercial developments are consistent with the Listing of Common Principal Uses for residential and commercial classifications established in UDO Table 4.2.5, Table 4.7.2.B, and Table 4.7.2.E, except as noted in the Conditions of Approval. Further the commercial portion of the site will be limited to the following uses as consistent with conditional uses allowable under the CZC zoning district:

a. Bottle Shop (on-premise consumption)
b. Catering Establishment
c. Bakery
d. Computer Related Services
e. Day spa (medical or non-medical)
f. Fitness Center
g. Grocery Store
h. Hair, Nail and Skin Related Services.
i. Indoor Commercial Recreation
j. Instructional Services
k. Laundry and Fabric Cleaning
l. Light Equipment Sales, Rental & Repair
m. Micro-Brewery, Micro Distillery, or Micro Winery
n. Office, High Intensity
o. Office, Low Intensity
p. Packaging and Shipping
q. Pharmacy
r. Repair Shop
s. Restaurant (Indoor and Outdoor Seating, Indoor Seating Only, and Walk-Up Service Only)
t. Retail, General
u. Retail, Micro
v. Tanning Salon
w. Business Incubator
x. Maker Space
y. Minor Utility
z. Child Day Care
bb. Outpatient Facility
dd. Urgent Care

These modifications from the UDO will result in higher-quality, financially attainable development that will incorporate a variety of sustainable development practices and will provide substantial enhancements above and beyond existing UDO requirements. In addition, the proposed multi-family development will include various design elements from North Carolina's QAP, Appendix B Design Quality Standards and Requirements.

- Each property entrance will have a monument sign
- All units will feature dining areas and storage closets.
- All units will feature modern, frost-free ENERGY STAR®-certified refrigerators and high-efficiency dishwashers, ensuring convenience with eco-conscious performance.
- All units will feature full-size washer and dryer hookups.
- All plumbing fixtures will be EPA WaterSense® rated, providing modern and sustainable water-saving solutions.
- HVAC systems will comply with ENERGY STAR® Multifamily certification standards, ensuring optimal energy efficiency and indoor climate control.
- The entire project will be designed to meet the standards of the ENERGY STAR® Multifamily New Construction Program, reflecting a commitment to environmental responsibility and long-term energy savings.
- The site will be thoughtfully planned with a variety of indoor and outdoor seating

areas, strategically placed throughout the community.

- All units will meet minimum unit size requirements of 660 square feet for a one bedroom, and 900 square feet for a two bedroom per North Carolina's QAP.
- Fully furnished amenities including:

    - A furnished community room, complete with an equipped kitchenette, a fireplace, dining area, and ample seating—perfect for socializing with neighbors or hosting community gatherings.
    - Outdoor green spaces featuring shaded gazebos, equipped grilling stations, and inviting seating areas designed for relaxation and outdoor entertainment.
    - A state-of-the-art fitness center outfitted with exercise equipment to support residents' health and wellness goals.
    - Additional leisure spaces including a library, a theater room for movie viewing, and a bocce ball court.
    - A business center with computers and free Wi-Fi to help residents stay connected.
    - A covered porte-cochère with a minimum clearance of 13 feet, providing sheltered drop-off and pickup for vehicles.

Section 3.3.2.E. Use Specific Standards

The proposed multi-family development is consistent with the use-specific standards established in UDO Section 4.3.87, except as otherwise noted in the Conditions of Approval. This would include the allowable building length (4.3.87.B.1) and the outdoor open space (4.3.87.E). These two standards are included in the proposed text amendment under consideration by the Town Council. The proposed development will comply with the requirements once the Text Amendment is approved.

The proposed commercial development will be consistent with the use-specific standards when a specific use is determined under a separate development application.

The proposed multi-family and commercial developments are consistent with the Development Standards established in UDO Chapter 6, except as otherwise noted in the Conditions of Approval and as listed in Section 5 of this Narrative.

2. Whether the proposed Conditional Rezoning advances the public health, safety, or welfare.

The proposed mixed-use development will promote public health, safety, and welfare through a variety of thoughtfully integrated design elements and community-focused improvements. Based on pricing provided by a licensed contractor, the Applicant anticipates spending approximately $4,248,500 on site improvements, majority of which will cover costs associated with the infrastructure outlined below.

Public Safety and Infrastructure Improvements

To enhance pedestrian safety and circulation, the Applicant is proposing the installation of new 5-foot-wide sidewalks and clearly marked crosswalks along all adjacent public streets. By doing this, the Applicant is essentially setting aside 2 additional feet of right of way on all other street perimeters, excluding Pritchard Road. These improvements will significantly improve walkability along the Pritchard Road corridor and provide safe, direct connections to the surrounding neighborhood.

Additionally, in collaboration with the Town of Clayton and surrounding properties, the Applicant will assist in the widening of Pritchard Road from its current 80-foot width to 110 feet to the extent necessary. With this, the Applicant is enabling its half of the 30-foot right of way expansion to proceed. This expansion is subject to roadway improvement efforts led by the Town of Clayton. The expanded roadway will include four travel lanes, a 17-foot landscaped median, curb and gutter, designated bike lanes, and continuous sidewalks—creating a safer and more efficient corridor for both vehicles and non-motorized users. As part of this improvement, a Right-In, Right-Out (RIRO) access point has been approved by NCDOT on Pritchard Road to reduce cut-through traffic in nearby residential neighborhoods and minimize vehicular conflict points.

Along Collinsworth Drive, the Applicant plans to incorporate parallel parking to address both safety and traffic needs. This road is frequently used by parents for student drop-off and pickup due to the site's proximity to several schools. This traffic pattern was evaluated using drone footage and supported by community feedback during a neighborhood meeting, where residents expressed a preference for the inclusion of parallel parking to manage traffic and improve safety.

Reduced Community Impact and Traffic Generation

The residential component of this proposal will be age-restricted and specifically designed for seniors, who typically generate lower demand on public resources such as schools. Seniors also tend to travel less frequently, especially during peak commuting hours, and often rely on alternative transportation methods such as walking or ridesharing. As a result, the parking demand and vehicular traffic associated with the development will be comparatively low.

A traffic generation memo prepared for this project estimates approximately 984 daily vehicle trips, a substantial reduction compared to a previously proposed 100% commercial use for the site, which would have generated roughly 1,852 daily trips. This decreased trip count contributes to reduced congestion and a safer environment for both pedestrians and drivers.

Economic and Community Benefits

The process of developing and building new tax credit housing generates substantial local economic activity, including new income and jobs for residents and additional revenue for local governments. According to a 2010 study conducted by the National Association of Home Builders, “the estimated one-year local impacts of building 100 apartments in a typical elderly tax credit development includes $7.3 million in local income, $768,000 in taxes and other revenue for local governments, and 113 local jobs. These impacts are a direct impact of the construction of the community, and the impact of residents who earn money from the construction and spend this money within the local community. The additional, annually recurring impacts of building 100 apartments in a typical elderly tax credit development include $2.3 million in local income, $395,000 in taxes and other revenue for local governments, and 32 local jobs. These are ongoing, annual local impacts that result from the new apartments being occupied and the occupants participating in the local economy each year.”

In today’s dollars and a development consisting of 167 elderly apartment homes, Dominium estimates that this project will generate $18.99 million in local income, $2 million in taxes and other revenue for local governments, and 293 jobs. Annually, the project is expected to generate $5.98 million in local income, $1 million in taxes and other revenue for local governments, and 83 jobs. It is also important to note that the neighborhood commercial component will also stimulate the local economy through job opportunities, local spending of income and the circulation of money within the community and fostering neighborhood growth.

Local income, local business owners' income, local wages and salaries, and local jobs supported affect various industries, including but not limited to, construction, manufacturing, transportation, communications, utilities, finance and insurance, wholesale and retail trade, real estate, business and professional services, and healthcare. These economic impacts directly and indirectly affect the community. Direct impacts include the jobs, wages, and local taxes generated by the actual development and construction of the project. Jobs generated by the construction and development of the project take place on-site and off-site. Income earned by local residents assisting with the construction and development of the project is spent on other goods and services with the community, increasing the circulation of money spent in the local community. With the savings from residing in an affordable community, these new households will also generate local jobs, income, and taxes each year. Generally, a new household spends 3/5 of its income on goods and services sold in the local economy, which will be a permanent source of income for local businesses.

3. Whether and the extent to which the proposed Conditional Rezoning is appropriate for its proposed location, and is consistent with the purposes, goals, objectives, and policies of the Town's adopted policy guidance.

The proposed mixed-use development aligns with the Town of Clayton's established goals, objectives, and policies for this area, as identified in the Town's Future Land Use Map. The subject property is located within both the Medium Density Residential (MDR) future land use zone and the Neighborhood Center (NC) future land use overlay zone.

The Neighborhood Center overlay is intended for areas adjacent to existing or planned residential neighborhoods that also support integrated commercial and retail development. This designation encourages high-density residential uses, promotes pedestrian connectivity, and supports mixed-use environments that serve the daily needs of nearby residents. The proposed commercial component of the development directly supports the objectives of the NC overlay by offering neighborhood-serving commercial space that enhances accessibility to goods and services. The inclusion of sidewalks, bike lanes, and improved road infrastructure further supports the overlay's emphasis on pedestrian-oriented design and connectivity.

The Medium Density Residential designation envisions neighborhoods that are more urban in character and located in close proximity to commercial services. Multi-family housing is consistent with this land use category, particularly when designed to maintain compatibility with surrounding development.

The proposed age- and income-restricted multi-family community aligns with the residential intent of the MDR zone by:

- Offering higher-density housing in a neighborhood-scale format,
- Providing housing options within walking distance of neighborhood commercial amenities,
- Preserving the aesthetic character of the surrounding community through thoughtful site planning and architectural design. Based on feedback provided directly from local community members, the design of the residential and commercial includes various features that resemble the architectural design of the local community. These features include incorporating brick siding and monument signs, gables within the roof line, metal and asphalt roofing shingles, landscaping features, portechere, and the overall color scheme. The intent is that this development is fresh and new but still provides a familiar feel that corresponds with the vernacular of the neighborhood.

The proposed development strikes a careful balance between residential and commercial uses, fulfilling the vision of both the MDR zone and NC overlay by fostering a walkable, accessible, and service-rich environment for current and future residents.

4. Whether an approval of the Conditional Rezoning is reasonable and in public interest.

The proposed Conditional Rezoning and associated conditions are both reasonable and in the public interest, as the development will address critical housing needs in the Town of Clayton while enhancing infrastructure for the broader community.

This project introduces much-needed, financially attainable housing options specifically targeted toward senior residents — a demographic that is often underserved in today's competitive housing market. Many older adults in the Clayton and greater Raleigh area are actively seeking affordable alternatives that allow them to age in place, maintain independence, and remain near family and long-established social networks.

Beyond meeting this housing demand, the development will also serve the local neighborhood and future residents through the inclusion of a 6,500-square-foot neighborhood commercial component. This space is designed to provide convenient access to everyday goods and services, promoting walkability and reducing the need for long-distance travel.

Importantly, the Applicant is also committed to leading critical infrastructure improvements that will benefit both future residents and the public at large. These improvements, outlined in Section #2, include:

- Installation of curb and gutter,
- Addition of new sidewalks, bike paths, and crosswalks,
- Enhanced parallel parking and pedestrian safety measures,
- Traffic flow improvements via a NCDOT-approved Right-In, Right-Out access point.

Together, these elements support a well-integrated, aesthetically pleasing, and safe residential community that complement the existing Riverwood neighborhood, promotes accessibility, and advances the public welfare.

5. Whether and the extent to which the Concept Plan is associated with the Conditional Rezoning is consistent with this Ordinance.

The Concept Plan submitted with the Conditional Rezoning application is consistent with the Town Unified Development Ordinance, except as otherwise noted in the Conditions of Approval. The Applicant acknowledges that the proposed project and rezoning application do not meet certain design standards within the current UDO. It is the intent of the Applicant to obtain final rezoning approval through an upcoming text amendment and to reduce parking through sustainable development incentives. Due to the distinctive nature and design features of age-restricted apartment homes, the Applicant cannot meet the design standards outlined below.

A. Section 4.3.87.B. – Multifamily Dwelling - Building Length

Under the current UDO, the maximum building length for an individual multi-family building is restricted to 250 linear feet, with the exception of the downtown district. However, the multifamily building measures 958 total linear feet, with the largest longest portion along

Pritchard Road measuring 356 feet in length. This deviation is essential due to the unique nature of the project, which is designed as an age-restricted community for residents aged 55 and older.

Given the specific needs of the target demographic, the design calls for a single, unified building to accommodate all residents. This is necessary to ensure that residents have easy and direct access to critical amenities, such as accessible elevators and amenity common spaces. A design consisting of multiple garden-style walk-up buildings, as an alternative, would introduce a series of challenges, particularly in terms of mobility and accessibility. Residents would be forced to navigate between separate buildings, potentially requiring the use of stairs and traveling longer distances to reach key amenities. This would also hinder their ability to access staff or emergency services in a timely manner, which is especially important in a community for individuals with varying mobility levels.

To address the concerns associated with exceeding the 250-foot length limit, the Applicant has thoughtfully modified the building's design. The façade of the building has been "jogged" or staggered in sections, breaking up the massing of the building and softening its visual impact. Additionally, a beautifully landscaped area has been created in front of the building, serving both as an aesthetic feature and a physical space to help mitigate the perceived length of the building. This landscaping will not only enhance the visual appeal of the building but also provide a welcoming environment for residents and visitors alike.

The design modifications, including the façade jog and landscaping, are intended to comply with the spirit of the UDO by reducing the visual impact of the building's length, while still meeting the functional requirements necessary for an age-restricted community. These efforts ensure that residents' safety, comfort, and convenience are prioritized, while also creating an attractive and functional living environment.

B. Section 4.3.87.E. – Multifamily Dwelling - Outdoor Space

Under the current UDO, each dwelling unit within a multi-family development is required to include a patio, deck, or balcony with a minimum width or length dimension of no less than seven feet. However, within the proposed project, there are eight units located above common spaces, the entryway portechere, and the trash room that do not have balconies. This design choice is primarily due to the building's layout and configuration, where it is not feasible to include balconies for these specific units, in addition to the overall goal of breaking up the building and creating separation.

The units in question are located above essential community spaces such as the fitness center, clubroom, kitchenette, fireplace lounge, theatre room, business center, amenity balcony, and leasing area, as well as the trash room, which is strategically placed within the building for easy access by residents. These spaces are designed to foster a vibrant and active community, providing ample opportunities for socializing, recreation, and relaxation. The inclusion of these high-quality communal spaces significantly enhances the living experience for all residents, making up for the lack of individual balconies for these eight units.

In addition, these units surround the entryway portechere and amenity balcony. Including balconies above these structures is not possible from a design standpoint but also would be in direct conflict with an overall aesthetically pleasing design. A key goal of the project design and these features is to break up the length of the building and create more harmonious separation amongst the overall building structure.

Given the wealth of amenities inside and outside the building and an overall design goal of creating separation amongst the building configuration, the absence of balconies for these eight units does not diminish the overall living experience but rather enhances the overall building design.

C. Section 6.2.5.F.1.a – Non-Residential Design Requirements – Street Networks

Under the current UDO, on sites including new streets, whether public or private, an interconnected network of streets shall be provided, to the maximum extent practicable, and streets shall connect to adjacent existing streets outside of the development. However, for the proposed project, the Applicant is requesting an alternative street design along Collinsworth Drive and Pritchard Road.

Specifically, the Applicant proposes implementing parallel parking in lieu of bicycle lanes along Collinsworth Drive and designating Pritchard Road as the primary access point, with a main entrance and exit. These requests are informed by a comprehensive area study, which included community feedback, consultations with the North Carolina Department of Transportation (NCDOT), and aerial drone footage analysis of Collinsworth Drive.

To mitigate cut-through traffic near single-family residences and high pedestrian activity, and to better channel vehicular flow along the more suitable Pritchard Road corridor, the Applicant has incorporated a right-in/right-out access point along Pritchard Road. This ingress/egress design is intended to enhance circulation between the commercial and retail areas while promoting neighborhood safety. The Applicant has received NCDOT approval for this configuration and will construct the necessary infrastructure to support efficient traffic movement.

Collinsworth Drive is currently used informally by local families for school drop-offs and pick-ups. Preserving parallel parking along this street is a community priority, as it provides essential parking during peak hours. Analysis of drone footage, along with direct feedback from residents and local officials, underscores the importance of maintaining this function for both safety and convenience. The Applicant is also undertaking several infrastructure improvements as part of the overall development, including widening Pritchard Road, installing sidewalks, curb and gutter, and constructing the approved right-in/right-out access.

Through these design adjustments along Collinsworth Drive and Pritchard Road, the Applicant seeks to balance safety, accessibility, and functionality. This approach reflects a thoughtful, context-sensitive planning process that is responsive to the needs and priorities of the surrounding community.

D. Section 3.2.11.C and 3.3.2.C – Maximum Residential Density

Under the current UDO, the maximum residential density is 6 units per acre. The CZC zoning district, however, does not allow for multifamily use. The proposed project is designed for multifamily use with a residential density of 23.42 units per acre for the multifamily building. The Applicant is requesting multifamily use as a part of the current Text Amendment that Town Council is reviewing. This higher density has been carefully considered in relation to the specific needs and objectives of the development, and it is driven by several key factors that reflect the unique goals of the project.

The primary motivation for exceeding the density limit is to accommodate the needs of the

proposed age-restricted community, which requires a sufficient number of residential units within a compact, easily navigable area. By increasing the density, the project can provide more housing units without requiring excessive land area, thereby ensuring that a larger portion of the development is dedicated to high-quality communal spaces, green spaces, and amenities that enhance the quality of life for residents. The design prioritizes functionality and accessibility, offering a range of services and outdoor spaces that promote social interaction and well-being.

More importantly, this community will house elderly residents. Additional density ensures that residents have proximate and decreased walking distances to parking, amenities, homes, and more. In addition, unlike open breezeways typical of garden-style walk-up multifamily buildings, this community will include conditioned corridors. Easier accessibility to building accommodations and individual homes, as well as, higher quality conditional interiors, is essential for senior living communities.

E. Section 6.9 Parking Requirements

Within the current UDO, multifamily and commercial spaces are required to provide off-street parking at the following ratios –

- Multifamily Residential
  - 1 space per one-bedroom unit
  - 1.25 spaces per two-bedroom unit
  - 0.25 spaces for visitors
- Commercial
  - 1 space per 250 square feet of commercial space
- Total Required Parking Spaces
  - 228 residential parking spaces
  - 26 commercial spaces

For the proposed project, the Applicant requests a modification of the ratio used to calculate the minimum off-street parking spaces required. The Applicant proposes a minimum off-street residential parking requirement of 1.15 spaces per dwelling unit, which will amount to just over a 10% reduction in residential parking—below the 15% reduction that would be provided in Town incentives in exchange for the sustainability features as mentioned above in the master plan narrative.

Additionally, per Section 6.9.5 of the UDO regarding bicycle space requirements, 2 bicycle spaces are required for the commercial portion of the project, and 12 spaces are required for the residential portion of the project. The Applicant is proposing 6 bicycle spaces for the commercial component of the project and 4 bicycle spaces for the multifamily component of the project, as denoted on the concept plan. The Applicant is requesting a reduction of two bicycle parking spaces to better align with the needs of the development. This adjustment allows for an increase in bicycle parking for the commercial component, which is expected to experience higher traffic and usage. Conversely, the multifamily residential component, which primarily serves senior residents, will have fewer bicycle spaces, reflecting the lower anticipated demand.

With over 50 years of experience in the development, management, and ownership of senior housing communities, the Applicant has accumulated extensive data on parking utilization across a robust and diverse portfolio. Through many years of operation, the Applicant has determined that senior communities require less parking than traditional family communities. As a

result, the Applicant is focused on striking a perfect balance between ensuring ample parking availability for residents and visitors, while also avoiding excessive paved areas that result in underutilized “seas” of parking. Oversupplied parking can detract from site aesthetics, hinder pedestrian connectivity, and disrupt the integration of the development with surrounding land uses.

The current project design takes into account the evolving transportation patterns of senior residents, many of whom drive less frequently and increasingly utilize alternative modes of transportation such as public transit, walking, or ridesharing. Importantly, the project is located adjacent to walkable retail and commercial amenities, enhancing accessibility and reducing the need for vehicle dependence. This strategic location further supports a reduced demand for parking while promoting a more connected, pedestrian-friendly environment.

Informed by decades of operational experience, the proposed parking plan is thoughtfully calibrated to meet actual resident needs while supporting broader community and urban design goals.

F. Section 3.2.1.C and 3.3.2.B Perimeter Setback

Under the current UDO, a minimum perimeter setback of 30 feet is required for multi-building and unified developments. The proposed project seeks a reduced setback of 20 feet to accommodate the site's unique layout and building configuration. This modification responds to community feedback expressing a preference for locating the primary multifamily residential and commercial structures closer to Pritchard Road, a key thoroughfare. By shifting the building massing toward the road, the project reduces potential visual impacts on adjacent single-family neighborhoods. Additionally, the reduced setback supports enhancements to roadway sections and enables the inclusion of expanded landscape buffers, further mitigating neighborhood impacts and improving the site's overall integration into the community.

G. Section 6.6.16.D.2 Streetscape Buffers

Under the current UDO, a Type C streetscape buffer is required for multifamily and commercial developments. However, the proposed project includes a modified buffer design utilizing a Type B buffer for both the multifamily and commercial components. As illustrated in the Concept Plan prepared by Martin Riley Associates, P.C., dated 6-20-25, the Applicant will provide a minimum of two canopy trees and two understory trees per 100 linear feet.

This enhanced landscape approach is intended to provide substantial visual screening to reduce the project's impact on adjacent single-family homes and neighboring properties. Community feedback has emphasized the importance of robust screening to both preserve neighborhood character and accommodate the unique operations of the proposed development.

H. Section 6.2.4.D.3.a Building Entrances

Under the current UDO, building facades that abut public streets must be configured so that entryways to individual dwelling units or shared entrances face the street. Given that the proposed project has frontage along three public streets, the Applicant has designed the multifamily building to respond to the site's unique geometry.

The primary building entrance is centrally located and oriented towards Collinsworth Drive. This entrance will feature a porte-cochere to enhance accessibility and safety for senior

residents, particularly during drop-off and pick-up. The entryway will be framed by high-quality landscaping to create an attractive, welcoming environment that fosters a strong sense of community. On the opposite side of the building, a secondary access point will open to an outdoor recreational space oriented toward Pritchard Road, further activating the streetscape. In addition to these shared entrances, direct access points to individual first-floor units will be provided throughout the building perimeter, allowing residents to enter their homes conveniently from adjacent parking areas.

This configuration minimizes walking distances—an important consideration for elderly residents who may have limited mobility—and supports everyday functionality, such as carrying groceries. Due to the site's limited acreage and multi-frontage layout, the proposed design represents a thoughtful balance of ordinance intent, site constraints, and resident needs. The Applicant has prioritized resident health, safety, and well-being in the development of this building layout.

I. Section 4.5.5.BB.4 Refuse Collection Areas

Under the current UDO, the Applicant will meet all refuse collection area requirements for both the commercial and multifamily components of the project, with the exception of the specific deviations described below. The proposed design prioritizes operational efficiency, minimizes neighborhood impacts, and supports the unique needs of a senior residential community.

Commercial Use

As illustrated in the Concept Plan prepared by Martin Riley Associates, P.C., dated 6-20-2025, the refuse collection area serving the commercial uses is strategically designed located along Pritchard Road. This area will be fully enclosed and screened with landscaping to minimize visual and sensory impacts. To enhance functionality, the Applicant proposes the use of latching gates in place of self-closing gates. This adjustment improves operational reliability by reducing maintenance issues associated with automatic closures. The refuse collection area is designed to efficiently accommodate collection vehicles and its location along Pritchard Road helps limit nearby single-family homes from potential noise, odor, and visual impacts. Additionally, the southern portion of the site presents topographical challenges that make it more suitable for parking, further supporting the proposed placement of the refuse area.

Multifamily Use

The multifamily component, designed for senior residents, will include internal refuse collection areas located within the building, consistent with the needs of a senior-focused community. Two centralized, indoor refuse collection areas will be easily accessible from residential units. This eliminates the need for residents to haul waste outside, enhancing safety and convenience. Designated external staging areas, also shown on the Concept Plan, will be used on collection days only. These areas will be screened with landscaping and maintained to prevent visual clutter and odor. Refuse containers will be moved to and from these staging areas by on-site management and will not remain outdoors for more than 24 hours. The Applicant, who will also serve as the long-term property manager, brings over 50 years of experience in developing and operating senior communities. This experience informs a waste management strategy that prioritizes efficiency, aesthetics, and resident well-being. Regular maintenance and

oversight will ensure that staging areas remain clean, accessible, and visually buffered from surrounding uses.

6. Any other factors the Town Council may determine to be relevant.

The Applicant appreciates the time and consideration of the Town of Clayton in the review of this rezoning application. Dominium is excited to provide 167 income- and rent-restricted apartment homes, specifically tailored to seniors within the Clayton and greater Raleigh area. As the region experiences rapid growth, affordable housing for seniors has become increasingly scarce, placing pressure on long-time residents to either relocate or exhaust personal savings and retirement funds to remain in the area. In addition to residential offerings, the development includes 6,500 square feet of commercial space, strategically located to serve both residents and the surrounding neighborhood. By providing access to everyday goods and services within walking distance, the project will help reduce vehicle trips, improve convenience, and enhance neighborhood livability

Kimley»Horn

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March 14, 2025 (*Revised June 6, 2025*)

Conrad Olmedo, AICP, CZO
Planning Director – Town of Clayton
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DocuSigned by:
Kevin Dean
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6/6/2025

RE: *Clayton Mixed-Use Development – Clayton, NC – Traffic Assessment Memo*

Kimley-Horn has prepared a traffic assessment for the proposed Clayton Mixed-Use development located west of Athletic Club Boulevard between Pritchard Road and Collinsworth Drive in Clayton, NC. As currently proposed, this development will include approximately 170 senior-adult multifamily dwelling units and 7,000 square feet (SF) of retail space.

2025 DOMINIUM REZONING

This proposed rezoning would allow for the 3-story multifamily building and some neighborhood retail space on the subject parcel. Site access is proposed vial full-movement driveways along Swann Trail and Collinsworth Drive as well as a right-in/right-out driveway on Pritchard Road. In coordination with the Town of Clayton and the North Carolina Department of Transportation (NCDOT), the right-in/right-out driveway along Pritchard Road was proposed with this plan to reduce the volume of traffic added to existing neighborhood streets.

The trip generation potential of the plan, calculated using data from the 11th Edition of the ITE *Trip Generation Manual*, is summarized in Table 1 below.

Table 1
ITE Traffic Generation (Vehicles): 2025 Dominium Rezoning

Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
				Total	In	Out	In	Out
252	Senior Adult Housing – Multifamily	170	d.u.	516	11	22	24	19
822	Strip Retail Plaza (<40k SF)	7,000	s.f.	526	14	9	30	30
Subtotal				1,042	25	31	54	49
Internal Capture				*178*	*0*	*0*	*11*	*11*
Pass-by Capture				*176*	*0*	*0*	*11*	*9*
Total Net New External Trips: 2025 Dominium Rezoning				**688**	**25**	**31**	**32**	**29**

As shown, this proposed site is expected to generate 688 net new external trips on a typical weekday, with 56 net new trips during the AM peak hour and 61 net new trips during the PM peak hour. These volumes fall below the thresholds of 1,000 daily or 100 peak hour trips for requiring a traffic impact analysis (TIA) in the Town of Clayton and well below the 3,000 daily trip TIA threshold for NCDOT.

TRIP GENERATION COMPARISONS

In addition to trip generation calculations prepared for the portion of the site reflected in the Dominium rezoning, trip generation calculations were prepared for the 2008 Development Plan for the parcel as well as the combined 2025 Development Plan, which reflects the Dominium project as well as an adjacent 13,000 SF neighborhood retail project on the parcel.

2008 Development Plan

The "Riverwood Athletic Club Tract D" plan (Piedmont Land Design, 2008) proposed construction of a 56-bed assisted living facility, 18,000 SF of general office space, 12,000 SF of general retail space, a 3,300 SF fast-food restaurant with a drive-thru window, and a 3,400 SF convenience store with 12 fueling positions. The trip generation potential of that plan, calculated using data from the 11th Edition of the ITE *Trip Generation Manual*, is summarized in Table 2 below, and trip generation calculations are also attached. As shown, land uses in the 2008 plan would be expected to generate 1,852 net new external trips on a typical weekday, with 191 net new trips during the AM peak hour and 171 net new trips during the PM peak hour.

Table 2
ITE Traffic Generation (Vehicles) – 2008 Development Plan (by PLD)

Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
				Total	In	Out	In	Out
245	Assisted Living	56	beds	146	6	4	5	8
710	General Office Building	18,000	s.f.	262	33	5	7	33
822	Strip Retail Plaza (<40k SF)	12,000	s.f.	736	19	13	45	44
934	Fast-Food Restaurant with Drive-Thru Window	3,300	s.f.	1,544	75	72	57	52
945	Convenience Store/Gas Station (9-15 fueling positions)	3,400	s.f.	2,456	95	97	93	92
Subtotal				5,144	228	191	207	229
Internal Capture				*1,408*	*34*	*34*	*58*	*58*
Pass-by Capture				*1,884*	*81*	*79*	*75*	*74*
Total Net New Trips: 2008 Development Plan				**1,852**	**113**	**78**	**74**	**97**

Combined 2025 Development Plan

The combined development plan for this overall parcel includes a total of approximately 170 senior-adult multifamily dwelling units and 20,000 SF of retail space. Trip generation calculations for this combined development plan were also performed using data from the 11th Edition of the ITE *Trip Generation Manual,* and the anticipated trip generation for this updated development plan is shown in Table 3. As shown, land uses in the current plan would be expected to generate 984 net new external trips on a typical weekday, with 78 net new trips during the AM peak hour and 92 net new trips during the PM peak hour. This combined plan is anticipated to generate significantly fewer daily and peak hour site trips than the 2008 development plan would have generated.

Table 3 ITE Traffic Generation (Vehicles) – Combined Development Plan								
Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
				Total	In	Out	In	Out
252	Senior Adult Housing – Multifamily	170	d.u.	516	11	22	24	19
822	Strip Retail Plaza (<40k SF)	20,000	s.f.	1,074	27	18	64	63
Subtotal				1,590	38	40	88	82
Internal Capture				*234*	*0*	*0*	*17*	*17*
Pass-by Capture				*372*	*0*	*0*	*23*	*21*
Total Net New External Trips: 2025 Combined Plan				**984**	**38**	**40**	**48**	**44**
Difference in Net New Trips: 2025 Plan vs. 2008 Plan				**-868**	**-75**	**-38**	**-26**	**-53**

ROADWAY IMPROVEMENTS SUMMARY

NCDOT has noted that a right-turn lane will be required on Pritchard Road at the proposed right-in/right-out site driveway. As shown on the attached turn lane warrant graph, an exclusive right-turn lane with 100 feet of storage and appropriate tapers was found to be sufficient to accommodate project traffic (even using a very conservative assumption of 50% of new external trips as right-turns at this drive way).

This development will also provide for Town-required improvements along project frontage. On-street parallel parking is proposed along the development's frontage of Collinsworth Drive in lieu of the bike lane identified in the Town of Clayton's "Typical Section No. 2E". The on-street parking is a more-appropriate accommodation than a bike lane in this case as vehicles currently park within the travel way and/or on the shoulder of Collinsworth Drive during school pick-up in the afternoons and as the bike lane would not connect to marked bike lanes beyond the project limits. When combined with sidewalk along the project frontage, the on-street parallel parking will provide a safer condition than pedestrians currently walking in the grass shoulder and loading/unloading within the travel lanes.

CONCLUSION

Based on the anticipated trip generation of the development, no further traffic analysis should be needed for this development. The proposed right-turn lane on Pritchard Road at the Site Driveway will accommodate projected right-turn volumes at that intersection, and the construction of that driveway will reduce the impact of site traffic on Athletic Club Boulevard, Collinsworth Drive, and Swann Trial when compared to the scenario in which that access is not provided.

Should you have any questions, please do not hesitate to contact me at kevin.dean@kimley-horn.com.

Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

Kevin Dean, P.E.
Project Manager

Clayton Mixed-Use Development

Table 1 - Trip Generation (11th Edition): Dominium Parcel (2025 Rezoning)

Land Use	Intensity		Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
252 Senior Adult Housing - Multifamily	170	d.u.	516	258	258	33	11	22	43	24	19
822 Strip Retail Plaza (<40K)	7,000	s.f.	526	263	263	23	14	9	60	30	30
Subtotal			**1,042**	**521**	**521**	**56**	**25**	**31**	**103**	**54**	**49**
Internal Capture											
252 Senior Adult Housing - Multifamily			89	53	36	0	0	0	11	8	3
822 Strip Retail Plaza (<40K)			89	36	53	0	0	0	11	3	8
Internal Capture Total			*178*	*89*	*89*	*0*	*0*	*0*	*22*	*11*	*11*
Total External Trips			**864**	**432**	**432**	**56**	**25**	**31**	**81**	**43**	**38**
Pass-By Capture	AM	PM									
822 Strip Retail Plaza (<40K)	0%	40%	176	88	88	0	0	0	20	11	9
Pass-By Capture Total			*176*	*88*	*88*	*0*	*0*	*0*	*20*	*11*	*9*
Total Net New External Trips: 2025 Rezoning - Dominium Parcel			**688**	**344**	**344**	**56**	**25**	**31**	**61**	**32**	**29**

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
INPUT	Office	0	0	0	0	0	0
	Retail	263	263	14	9	30	30
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	258	258	11	22	24	19
	Hotel	0	0	0	0	0	0
		521	521	25	31	54	49

INTERNAL TRIPS

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
OUTPUT	Office	0	0	0	0	0	0
	Retail	36	53	0	0	3	8
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	53	36	0	0	8	3
	Hotel	0	0	0	0	0	0
		89	89	0	0	11	11
	% Reduction	17.1%		0.0%		21.4%	

EXTERNAL TRIPS

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
OUTPUT	Office	0	0	0	0	0	0
	Retail	227	210	14	9	27	22
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	205	222	11	22	16	16
	Hotel	0	0	0	0	0	0
		432	432	25	31	43	38

Clayton Mixed-Use Development

Table 2 - Trip Generation (11th Edition): 2008 Development Plan

Land Use	Intensity		Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
254 Assisted Living	56	beds	146	73	73	10	6	4	13	5	8
710 General Office Building	18,000	s.f.	262	131	131	38	33	5	40	7	33
822 Strip Retail Plaza (<40K)	12,000	s.f.	736	368	368	32	19	13	89	45	44
934 Fast-Food Restaurant with Drive-Through Window	3,300	s.f.	1,544	772	772	147	75	72	109	57	52
945 Convenience Store/Gas Station (9-15 VFP)	3,400	s.f.	2,456	1,228	1,228	192	95	97	185	93	92
Subtotal			**5,144**	**2,572**	**2,572**	**419**	**228**	**191**	**436**	**207**	**229**
Internal Capture											
254 Assisted Living			60	27	33	1	0	1	9	4	5
710 General Office Building			130	54	76	9	5	4	12	4	8
822 Strip Retail Plaza (<40K)			140	60	80	4	2	2	17	10	7
934 Fast-Food Restaurant with Drive-Through Window			613	364	249	32	18	14	43	19	24
945 Convenience Store/Gas Station (9-15 VFP)			465	199	266	22	9	13	35	21	14
Internal Capture Total			*1,408*	*704*	*704*	*68*	*34*	*34*	*116*	*58*	*58*
Total External Trips			**3,736**	**1,868**	**1,868**	**351**	**194**	**157**	**320**	**149**	**171**
Pass-By Capture	AM	PM									
822 Strip Retail Plaza (<40K)	0%	40%	239	120	119	0	0	0	29	14	15
934 Fast-Food Restaurant with Drive-Through Window	50%	55%	489	245	244	58	29	29	36	21	15
945 Convenience Store/Gas Station	60%	56%	1,156	578	578	102	52	50	84	40	44
Pass-By Capture Total			*1,884*	*943*	*941*	*160*	*81*	*79*	*149*	*75*	*74*
Total Net New External Trips: 2008 Development Plan			**1,852**	**925**	**927**	**191**	**113**	**78**	**171**	**74**	**97**

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
INPUT	Office	131	131	33	5	7	33
	Retail	1,596	1,596	114	110	138	136
	Restaurant	772	772	75	72	57	52
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	73	73	6	4	5	8
	Hotel	0	0	0	0	0	0
		2,572	2,572	228	191	207	229

INTERNAL TRIPS

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
OUTPUT	Office	54	76	6	4	4	8
	Retail	259	346	10	15	31	21
	Restaurant	364	249	18	14	20	24
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	27	33	0	1	3	5
	Hotel	0	0	0	0	0	0
		704	704	34	34	58	58
	% Reduction	27.4%		16.2%		26.6%	

EXTERNAL TRIPS

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
OUTPUT	Office	77	55	27	1	3	25
	Retail	1,337	1,250	104	95	107	115
	Restaurant	408	523	57	58	37	28
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	46	40	6	3	2	3
	Hotel	0	0	0	0	0	0
		1,868	1,868	194	157	149	171

Clayton Mixed-Use Development

Table 3 - Trip Generation (11th Edition): Combined Pod Build-out (2025 Rezoning)

Land Use	Intensity		Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
252 Senior Adult Housing - Multifamily	170	d.u.	516	258	258	33	11	22	43	24	19
822 Strip Retail Plaza (<40K)	20,000	s.f.	1,074	537	537	45	27	18	127	64	63
Subtotal			**1,590**	**795**	**795**	**78**	**38**	**40**	**170**	**88**	**82**
Internal Capture											
252 Senior Adult Housing - Multifamily			117	62	55	0	0	0	17	11	6
822 Strip Retail Plaza (<40K)			117	55	62	0	0	0	17	6	11
Internal Capture Total			*234*	*117*	*117*	*0*	*0*	*0*	*34*	*17*	*17*
Total External Trips			**1,356**	**678**	**678**	**78**	**38**	**40**	**136**	**71**	**65**
Pass-By Capture	AM	PM									
822 Strip Retail Plaza (<40K)	0%	40%	372	186	186	0	0	0	44	23	21
Pass-By Capture Total			*372*	*186*	*186*	*0*	*0*	*0*	*44*	*23*	*21*
Total Net New External Trips: 2025 Rezoning - Combined Pod			**984**	**492**	**492**	**78**	**38**	**40**	**92**	**48**	**44**
Total Net New External Trips: 2008 Development Plan			**1,852**	**925**	**927**	**191**	**113**	**78**	**171**	**74**	**97**
Difference in Net New Trips: 2025 Plan minus 2008 Plan			**-868**	**-433**	**-435**	**-113**	**-75**	**-38**	**-79**	**-26**	**-53**

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
INPUT	Office	0	0	0	0	0	0
	Retail	537	537	27	18	64	63
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	258	258	11	22	24	19
	Hotel	0	0	0	0	0	0
		795	795	38	40	88	82

INTERNAL TRIPS

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
OUTPUT	Office	0	0	0	0	0	0
	Retail	55	62	0	0	6	11
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	62	55	0	0	11	6
	Hotel	0	0	0	0	0	0
		117	117	0	0	17	17
	% Reduction	14.7%		0.0%		20.0%	

EXTERNAL TRIPS

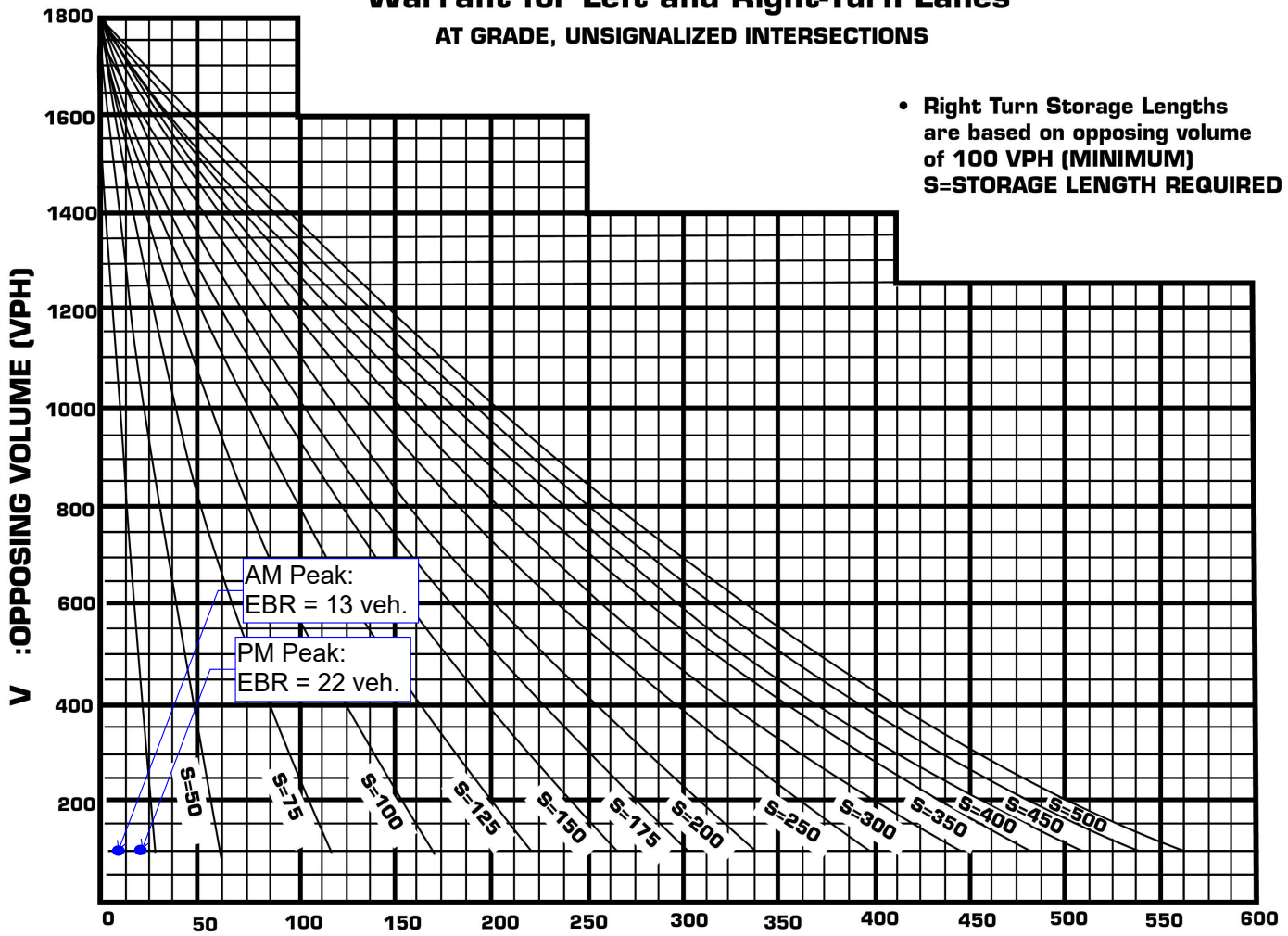
	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
OUTPUT	Office	0	0	0	0	0	0
	Retail	482	475	27	18	58	52
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	196	203	11	22	13	13
	Hotel	0	0	0	0	0	0
		678	678	38	40	71	65

Clayton Mixed-Use Development

Pritchard Road at RI/RO Site Driveway

Warrant for Left and Right-Turn Lanes

AT GRADE, UNSIGNALIZED INTERSECTIONS



Dominium /Clayton Mixed Use | 2025-010-CZM

Motions for Consistency Statements

The Town Council may choose from one of the four suggested motions below.

Staff Recommends the Motion in Red Bold Text

Motion 1: Approval – Consistent with the 2045 Comprehensive Growth Plan

I make a motion to approve of the Dominium / Clayton Mixed-Use Conditional Rezoning, the associated Concept Plan, the Conditions of Approval, and Ordinance #2025-08-03, based on consistency with the adopted 2045 Comprehensive Growth Plan, in that:

- Policy LU 1.2: Encourages developments which incorporate high quality design and enhance the quality of life for existing and future residents of the Town.
- Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

The action is reasonable and in the public interest, in that:

- The area is currently zoned for corridor commercial uses; the rezoning reduces the amount of overall commercial for a mix of uses.
- The project is providing an affordable housing option to a growing senior population that is currently unmet in Clayton.

Motion 2: Approval – Inconsistent with the 2045 Comprehensive Growth Plan

I make a motion to approve of the Dominium / Clayton Mixed-Use Conditional Rezoning, the associated Concept Plan, Conditions of Approval, and Ordinance #2025-08-03. While this request is generally consistent with the adopted 2045 Comprehensive Growth Plan in that:

- Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

The request is specifically inconsistent in that:

- The proposed residential density of this project exceeds the recommended density in the 2045 Comprehensive Growth Plan.

The action is reasonable and in the public interest, in that:

- The area is currently zoned for corridor commercial uses; the rezoning reduces the amount of overall commercial in favor of a mix of commercial and residential.
- The project is providing an affordable housing option to a growing senior population that is currently unmet in Clayton.

Motion 3: Denial – Consistent with the 2045 Comprehensive Growth Plan

I make a motion to deny the Dominium / Clayton Mixed-Use Conditional Rezoning. While the request is consistent with the adopted 2045 Comprehensive Growth Plan, in that:

- Policy LU 1.2: Encourages developments which incorporate high quality design and enhance the quality of life for existing and future residents of the Town.
- Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

The action is reasonable and in the public interest, in that:

- The area can remain as commercial use in line with the current zoning.
- There is no increase in density over and above what the comprehensive plan calls for.

Motion 4: Denial – Inconsistent with the 2045 Comprehensive Growth Plan

I make a motion to deny the Dominium / Clayton Mixed-Use Conditional Rezoning as this request is inconsistent with the adopted 2045 Comprehensive Growth Plan, in that:

- The proposed residential density of this project exceeds the recommended density in the 2045 Comprehensive Growth Plan.

The action is reasonable and in the public interest, in that:

- The area can remain as commercial use in line with the current zonings
- There is no increase in density over and above what the comprehensive plan calls for.

Column

INTERIM AD DRAFT

This is the proof of your ad scheduled to run in **Johnstonian News - (Johnston County)** on the dates indicated below. If changes are needed, please contact us prior to deadline at **(919) 284-2295**. Please note: when you submit a legal document, you are responsible for ensuring payment for the associated fees or charges are paid.

Notice ID: tpmZ0siPqUvfkVzaVMW5 | **Proof Updated: Jul. 30, 2025 at 10:08am EDT**
Notice Name: 2025-10-CZM,2025-23-CZM,2025-140-CZM,Coulon

This is not an invoice. Below is an estimated price, and it is subject to change. You will receive an invoice with the final price upon invoice creation by the publisher.

FILER	FILING FOR
Sam Johnson-Phillips sphillips@townofclaytonnc.org (919) 553-5002	Johnstonian News - (Johnston County)

Columns Wide: 1 **Ad Class:** Legals

08/06/2025: Other	168.00
08/13/2025: Other	168.00

Subtotal	$336.00
Tax %	0
Processing Fee	$38.60
Total	**$374.60**

See Proof on Next Page

PUBLIC NOTICE

The Clayton Town Council will hold Public Hearings at 6:00 PM on Monday August 18, 2025, at Town Hall, 111 E. Second Street, regarding the applications listed and described below. These public hearings have been scheduled and will be heard in accordance with the requirements of NCGS.

· 2025-10-CZM Clayton Mixed Use (Dominium) Conditional Rezoning: Request to rezone one parcel (3.3 acres) from Corridor Commercial (CRM) to Conditional Zoning Commercial (CZC) district. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The applicant is proposing to develop a 167-unit senior living facility and up to 6,400 SF of commercial development. The parcel is located off Pritchard Road, Waterfield Drive, Swann Trail, and Collinsworth Road. PIN # 177000-18-0722.

· 2025-23-CZM Heavner Property Conditional Rezoning: Request to rezone two parcels (74.08 acres) from Corridor Commercial (CRM) and Residential Large Lot (RLL) to Conditional Zoning Commercial (CZC) District. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The applicant proposes up to 51.60 acres of the site to include commercial development, with 15.90 additional acres consisting of multi-family development. The parcels are located off Clayton Blvd, east of Financial Drive, Town Centre Blvd, and Scholar Drive. PIN #s 165909-05-8421 & 165909-15-8400.

· 2025-140-CZM FluroFusion Conditional Rezoning: Request to rezone one parcel (3.88 acres) of land from Heavy Industrial (HID) to Conditional Industrial (CZI) District. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The request includes allowance of Heavy Manufacturing with a 100-foot distillation tower. The parcel is located on Powhatan Road between NC Railroad Company and Best Wood Dr. PIN # 167700-59-3446.

· 2024-77-ANX Coulon Company Annexation: Request of a non-contiguous annexation to annex approximately 5.23 acres of land in the Town's ETJ into the Town's Corporate Limits. The property is located at 3733 Powhatan Road and described as follows: Beginning at the approximate centerline intersection of Powhatan Road, NCSR 1901, and the North Carolina Railroad Company right-of-way, said point being the place and point of beginning; Thence leaving the Powhatan Road centerline and following the center of the North Carolina Railroad Company right-of-way S53°09'15"E459.51 feet to an existing iron pipe; Thence leaving the center of the North Carolina Railroad right-of-way S36°47'45"W 99.64 feet to an existing iron pipe; Thence S36°47'45"W 449.17 feet to an existing rebar; Thence N53°25'18"W 355.26 feet to an existing iron pipe on the eastern right-of way of Powhatan Road; Thence N53°25'18"W 32.59 feet to a point in the approximate centerline of Powhatan Road; Thence with the approximate centerline of Powhatan Road along a curve having a Radius of 693.25 feet, an Arc Length of 189.70 feet, and a chord bearing and distance of N34°16'59"E 189.11 feet to a point; Thence N26°51'17"E367.41 feet to the place and point of beginning and containing 5.23 acres more or less. PIN # 167700-59-3446.

These are open meetings, and the public is invited to attend. To obtain more information regarding these applications, members of the public may contact the Planning Department at 919-553-5002 or email at planning@townofclaytonnc.org .

Heidi Holland, CMC, NCCMC
Town Clerk
Town of Clayton
919-553-5002 ext. 5004

The Johnstonian Newspaper

Please advertise on the following dates:

August 6, 2025
August 13, 2025

Affidavit of publication required.
The Johnstonian
August 6, 13, 2025

ORDINANCE TO AMEND THE ZONING MAP OF THE TOWN OF CLAYTON, NORTH CAROLINA IN ACCORDANCE WITH THE UNIFIED DEVELOPMENT ORDINANCE (UDO) FOR 2025-010-CZM DOMINIUM CLAYTON MIXED USE CONDITIONAL REZONING

WHEREAS an application has been filed with the Town of Clayton requesting an amendment to the Zoning Map of the Town of Clayton by conditionally rezoning property from the Corridor Commercial (CRM) zoning district to the Conditional Commercial (CZC) zoning district. The subject property is 8.31 acres and is located on the southerly side of Pritchard Road, east of the intersection with Swann Trail, west of the intersection of Athletic Club Boulevard, north of Waterfield Drive and Collingsworth Road, with an unassigned address and identified as Pin #177000-18-0722 (Johnston County Tax ID 16I02046B); and

WHEREAS said property is owned by Zogreo, LLC; and

WHEREAS the Planning Board of the Town of Clayton has reviewed the proposed rezoning request at their July 28, 2025 meeting and made a recommendation thereupon; and

WHEREAS notice of a Public Hearing to consider the proposed zoning change was published in accordance with law in The Johnstonian, a local newspaper, as required by Unified Development Ordinance Section 2.4.8(D) and North Carolina General Statutes §160D-602; and

WHEREAS a notice of a Public Hearing to consider the proposed zoning change was mailed to the owner of the parcel of land involved, as shown on the Johnston County Tax Listing, and to the owners of all parcels of land abutting that parcel of land and within 300 feet of the subject parcel of land, as shown on the Johnston County Tax Listings, by depositing a copy of the same in the United States Mail, first class postage paid, as required by Unified Development Ordinance Section 2.4.8(E) and by North Carolina General Statutes §160D-602; and

WHEREAS notice of a Public Hearing to consider the proposed zoning change was posted on the property as required by Unified Development Ordinance Section 2.4.8(F) of the and by North Carolina General Statues §160D-602 of the; and

WHEREAS the said Public Hearing was conducted at the Town Council meeting held at 6:00 p.m. on August 18, 2025, wherein a reasonable opportunity was given to all those in attendance to speak either in favor or against the said change to make relevant comments; and

THEREFORE, after duty considering the matter, THE TOWN COUNCIL OF THE TOWN OF CLAYTON DOES HEREBY ORDAIN:

SECTION 1. The Official Zoning Map of the Town of Clayton is hereby amended to designate the following described property as part of the Conditional Commercial (CZC) district:

General Description:
Within Town limits located on the southerly side of Pritchard Road east of the intersection of Swann Trail, west of the intersection of Athletic Club Boulevard, north of Waterfield Drive and Collingsworth Road, with an unassigned address and identified as Johnston County Tax ID 16I02046B and NC PIN#177000-18-0722.

SECTION 2. That if any section, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of Ordinance.

SECTION 3. The applicant is requesting to require these conditions of approval:

Conditions of Approval (2025-010-CZM Dominium-Clayton Mixed Use Conditional Rezoning)

1. The Project shall meet all applicable adopted Town of Clayton Unified Development Ordinance (UDO) requirements, Town of Clayton Manual of Standards, Specifications and Details, and the North Carolina Fire Code and NFPA Fire standards, except where specifically modified by the approved Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A) and Conditions of Approval.

2. The Project shall be constructed in substantial conformance with the accompanying Concept Plan, prepared by Martin Riley Associates, P.C., 7-8-2025, included as Exhibit A and as approved by the Clayton Town Council. Minor modifications to the Concept Plan, (Exhibit A) and Concept Plan Narrative may be approved administratively by the Planning Director pursuant to UDO Section 2.3.7.P , as amended.

3. Site features shown on these plans and listed in the Conditions of Approval run with land. The Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), and Conditions of Approval for this project shall allow for any changes in Town zoning regulations that create a nonconforming site feature as that term is defined in UDO Section 5.4.1(B), except for those site features and conditions aforementioned.

4. With the exception of the site features on the associated Concept plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A) and those conditions listed herein, the Project and associated development applications shall adhere to Town adopted policies and ordinances that are in effect at the time of their submittal and acceptance for review.

5. To the extent of any conflict between the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A) and these Conditions of Approval, these Conditions shall control.

6. To the extent permitted by law, in the event that a site plan for some portion of the development contemplated in a Conditional Rezoning application has not been submitted and accepted for review within three (3) years from the date of the approval, the Town Council may initiate a rezoning application to return the land to its prior or to some other appropriate zoning district designation.

7. Multi-family dwellings are permitted and shall be limited to age-restricted residential uses which meet the federal Fair Housing Act definition of Housing for Older Persons.

8. The maximum residential density on the property shall be 23.5 dwelling units per acre.

9. The multi-family development shall be certified under the EnergyStar Multi-Family New Construction Program.

10. The building design shall incorporate at least four (4) of the architectural elements listed in UDO Section 6.2.4.D.4 on street facing facades. The four architectural elements shall include the following: Pillars, Posts, Pilasters; multiple windows with a minimum of four-inch trim; eaves with a minimum of four-inch-wide trim; and awnings or overhangs.

11. A minimum 5% of the lot set aside for Active Open Space consistent with the CRM Zoning District standards per Town of Clayton UDO Section 6.7. Active Open Space shall be satisfied by the following:
    a. Multi-Family Development:
        i. Athletic fields and courts. – +/- 11,695 S.F.
        ii. Clubhouse/Common Space – +/- 9,591 S.F.
        iii. Central Green Space – +/- 14,151 S.F.
    b. Commercial Development:
        i. Plaza/Outdoor Dining Area – +/- 5,197 S.F.

12. The proposed mixed-use development shall include the following Sustainable Development Practices per Town of Clayton UDO Section 6.17.4 to reduce the parking by up to 15%. The Applicant shall demonstrate compliance with these incentives prior to issuance of Certificates of Occupancy.
    a. Schedule (A) – Energy Conservation – Use of central air conditioners that are Energy Start qualified. Applicant shall provide the provision of the manufacturer's certification statement as documentation of compliance prior to the issuance of a Certificate of Occupancy.

b. Schedule (A) – Construction of principle structure in accordance with Barrier Free Design Standards (ANSI A1171.1). The applicant shall demonstrate compliance on Construction Drawings or prior to issuance of a Building Permit
c. Schedule (B) – Building Configuration – Includable operable windows on all multi-family building sides. The applicant shall demonstrate compliance on the Construction Drawings or prior to the issuance of a building permit.
d. Schedule (B) – Building Configuration – Inclusion of 2 to 4 dedicated off-street parking spaces devoted to electrical vehicle charging via a level 1 or level 2 EV charging station. For the proposed multi-family development, the Applicant shall reserve two (2) parking spaces for Electric Vehicle (EV) parking. The two parking spaces reserved for EV parking shall be served by an electrical conduit that shall serve EV charger(s) and shall meet either Level 1 or 2 charging station requirements, which shall be installed by the Applicant. The applicant will demonstrate compliance on Construction Drawings or prior to the issuance of a Building Permit.

13. The proposed multi-family and commercial developments are consistent with the Listing of Common Principal Uses for residential and commercial classifications established in UDO Table 4.2.5, as amended, except as noted in the Conditions of Approval. Further the commercial portion of the site shall be limited to only the following uses as consistent with conditional uses allowable under the CZC zoning district:
    a. Bottle Shop (on-premise consumption)
    b. Catering Establishment
    c. Bakery
    d. Computer Related Services
    e. Day spa (medical or non-medical)
    f. Fitness Center
    g. Grocery Store
    h. Hair, Nail and Skin Related Services.
    i. Indoor Commercial Recreation
    j. Instructional Services
    k. Laundry and Fabric Cleaning
    l. Light Equipment Sales, Rental & Repair
    m. Micro-Brewery, Micro Distillery, or Micro Winery
    n. Office, High Intensity
    o. Office, Low Intensity
    p. Packaging and Shipping
    q. Pharmacy
    r. Repair Shop
    s. Restaurant (Indoor and Outdoor Seating, Indoor Seating Only, and Walk-Up Service Only)
    t. Retail, General
    u. Retail, Micro

v. Tanning Salon
w. Business Incubator
x. Maker Space
y. Minor Utility
z. Child Day Care
aa. Outpatient Facility
bb. Urgent Care

14. The Applicant shall provide the following traffic improvements, as listed as herein or as shown on the Concept Plan prepared by Martin Riley Associates, P.C. dated 7-8-2025 (Exhibit A).

a. As the property is surrounded by public streets, no new streets are proposed. A network of private drives located in the parking lots of the development shall connect the residential and commercial components of the project and connect the project to the adjacent development. Private drives shall be provided with cross-access easements to allow for the free flow of traffic between the residential and commercial components. Such cross-access easements shall be administratively approved by Planning Staff.

b. Improvements to Pritchard Road

i. The Applicant shall construct the following road improvements to the Applicant's side of increased ROW along Pritchard Road, which shall be dedicated to the Town of Clayton.

1. Installation of a 10-foot multi-use path consistent with required future improvements of Pritchard Road ROW per the Town of Clayton Comprehensive Transportation Plan (CTP) cross section 4A, as detailed on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A) or a combination of a 5-foot bike lane and a 5-foot sidewalk, per NCDOT's Typical Section 4G, as referenced in NCDOT's Highway Typical Sections for use in SPOT On!ine.

2. Exclusive right-turn lane on Pritchard Road with 100 feet of full width storage (inclusive of deceleration length) and appropriate bay taper into the right-in/right-out driveway, with appropriate channelization provided on the driveway, as shown on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 78-2025 (Exhibit A). The Applicant shall coordinate with the Town and North Carolina Department of Transportation (NCDOT) for the required driveway permit.

ii. A fee-in-lieu of construction shall be paid for improvements noted as "Future Improvements to Increased ROW" on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), consistent with the Typical Section No. 4A per the Clayton CTP prior to release of permits. The fee-in-lieu shall be reduced by costs of improvements to be constructed directly by the Applicant as a part of the Applicant's development of the site that reduces the cost of those future improvements. The fee-in-lieu shall be determined at the reasonable discretion of engineering staff based on normal customary practices of determining such fees, which shall be based on construction estimates provided by a certified engineer or general contractor.

c. Improvements to Collinsworth Drive

i. The portion of Collinsworth Drive improved as part of this development shall be expanded and constructed consistent with the road cross-section labeled "PROPOSED COLLINSWORTH DR SECTION," asshown on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A). The Applicant shall construct the following road improvements to the Applicant's side of the increased ROW:

1. 11-foot drive lane
2. 8-foot parallel parking, in lieu of 5-foot bike lanes, exclusive of 2'-6" curb and gutter
3. 5-foot sidewalk
4. All green spaces in ROW

ii. Subject to Town staff approval and acquiring all necessary rights-of-way, easements, and/or other permissions, the Applicant shall construct a crosswalk with ADA landings crossing Collinsworth Drive over the northwestern portion of the intersection Collinsworth Drive and Athletic Club Boulevard.

d. Improvements to Swann Trail and Waterfield Drive

i. The portions of Swann Trail and Waterfield Drive improved as part of this development shall be expanded and constructed consistent with cross-section 2B per the Clayton CTP and detailed on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), or the NCDOT's Typical Section 2E, as referenced in NCDOT's Highway Typical Sections for use in SPOT On!ine. The Applicant shall construct the following road improvements to the Applicant's side of the increased ROW:

1. 11-foot drive lane
2. 10-foot multi-use path or combination of a 5-foot bike lane and 5-foot sidewalk

3. 2-foot 6-inch curb and gutter
4. All green spaces in ROW

15. A Ground Sign shall be permitted at each of the multi-family building's driveway entrances to the site and shall comply with the Town's signage requirements established in UDO Section 6.13. The maximum number of signs on the multi-family building site may exceed the limits set out in UDO Section 6.13 to allow up to three ground signs on the multi-family building site. Ground signs on Swann Trail and Collingsworth shall not be internally illuminated.

16. The Applicant shall complete a sewer study of the downstream system(s) to determine if improvements or modifications are required in order to serve the project prior to Construction Plan approval. Any related agreements shall also be approved by the Town prior to Construction Plan approval. The Town of Clayton shall not release any water meter for any structure associated with 2025-010-CZM until such time that all downstream off-site water and sewer utility infrastructure improvements have by installed, accepted, and have the ability to accept flow from the site.

17. The 30-foot minimum perimeter setback for multi-building and unified developments established in UDO Sections 3.2.1.C and 3.3.2.B is reduced to 20 feet.

18. The multifamily building and commercial use shall comply with the Use-Specific Design Standards per Town of Clayton UDO Section 6.6.17 Streetscape Buffers with the exception of UDO Section 6.6.17.D.2, which requires the provision of a Type C buffer. The multifamily development shall include streetscape buffers along all existing streets in accordance with the Type B buffer.

19. The proposed multi-family building is on property with frontage on three different streets. The building depicted in the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), has been designed to complement the unique geometry of the site and provide entryways on facades facing multiple streets. Building entrances may be constructed consistent with the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), and are not required to be configured to meet the specific entryway requirement of UDO Section 6.2.4.D.3.a., which states the facades of all buildings abutting streets shall be configured so that entryways to individual dwelling units or shared entrances face the street.

20. For the commercial use, Refuse Collection Areas shall be configured to allow access by collection vehicles per the Town's Engineering Specification and Design Manual and shall be designed to meet the Collection Area Configuration Requirements of UDO Section 4.5.5.CC.4, except for the following deviations:
    a. Collection areas configured to be served by vehicles shall be equipped with latching gates, in lieu of self-closing gates. Collection areas shall be screened

by landscaping buffers, which shall be approved at the reasonable discretion of the Planning Director.

b. Collection areas shall be located as noted on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A).

21. The Refuse Collection Areas for the multi-family residential component shall be located within the building, with designated staging areas provided for pick-up on collection days. Staging areas shall be located as noted on the Concept Plan, prepared by Martin Riley Associates, P.C., dated 7-8-2025 (Exhibit A), and buffering methods shall include tree island screening. Collection bins shall not be left outside for a period of more than 24 hours.

22. The multi-family building and commercial use shall comply with the Parking and Loading Standards per Town of Clayton UDO Section 6.9.5; except for the number of spaces provided. The bicycle spaces provided shall be 4 spaces for multi-family development and 6 spaces for the commercial development. The number of regular spaces shall be 246+/-, using up to a 15% reduction through the provision of Sustainable Development Practices.

SECTION 4. That the Town Council hereby adopts the following Statement of Consistency and Reasonableness for the proposed rezoning:

While this request is generally consistent with the adopted 2045 Comprehensive Growth Plan in that:

- Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

The request is specifically inconsistent in that:

- The proposed residential density of this project exceeds the recommended density in the 2045 Comprehensive Growth Plan.

The action is reasonable and in the public interest, in that:

- The area is currently zoned for corridor commercial uses; the rezoning reduces the amount of overall commercial in favor of a mix of commercial and residential.
- The project is providing an affordable housing option to a growing senior population that is currently unmet in Clayton.

SECTION 5. That this ordinance shall become effective immediately upon its adoption.

Duly adopted this 18th day of August 2025, while in regular Session.

_____

Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM:

_____
Jim Cauley
Town Attorney

From: Collier, Banks <Banks.Collier@Dominiuminc.com>
Sent: Tuesday, August 12, 2025 7:54 AM
To: Karen Mallo <kmallo@townofclaytonnc.org>; Audrey Duchesne <aduchesne@townofclaytonnc.org>; Haley Downey <hdowney@townofclaytonnc.org>; Conrad Olmedo <colmedo@townofclaytonnc.org>
Cc: Reinhardt, Shaun <shaun.reinhardt@Dominiuminc.com>; Hollis, Adria <Adria.Hollis@Dominiuminc.com>; Amy Crout <acrout@smithlaw.com>; Toby Coleman <tcoleman@smithlaw.com>; Barnes, Michael <michael.barnes@kimley-horn.com>; Bostic, Chris <chris.bostic@kimley-horn.com>; Dean, Kevin <kevin.dean@kimley-horn.com>; Courtney Tanner <ctanner@townofclaytonnc.org>
Subject: Re: [EXTERNAL] RE: Revised Conditions of Approval (2025-010-CZM – Dominium – Clayton Mixed-Use) - 8.6.2025

Be Advised: This email originated from outside of the Town of Clayton's network. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning Haley,

Thank you again for jumping on a call yesterday to chat. Our team had a chance to huddle and we would like to formally request that this project be deferred to the September 2nd meeting.

Given the extent of comments and concerns from neighbors, we'd like a little bit more time to ensure we are fully prepared to address these concerns. We do not have any changes to the revised conditions, and plan to still attend the meeting on the 18th.

We acknowledge and appreciate everyone's time on this project over the last few weeks, and believe this is the best decision for the project at this time.

Please let me know what is needed from our team and thank you again for your time and help.

Best,

Banks Collier

Development Associate
Development, Southeast Region
Dominium
375 Northridge Rd Suite 500 | Atlanta, GA 30350
Phone 404-205-8095
DOMINIUMAPARTMENTS.COM |

DOMINIUM

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	PUBLIC HEARINGS

Item Title

2025-23-CZM Heavner Property Conditional Rezoning

Presenter(s)

Haley Downey, AICP, CZO, Assistant Planning Director

Suggested Action

Adoption of Ordinance - Ordinance #2025-08-02 and Statement of Consistency

Strategic Priorities Alignment

☐ Vibrant Downtown	☒ Desirable Amenities and Spaces	☐ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☒ Diversified Economic Development	☐ Community Outreach and Engagement	☐ Public Safety

Public Hearing: Yes - Legislative

Applicable General Statute Number: §160D-703(b)

If Approved, Will Document Require Recordation? Yes

Does This Item Require a Communication Plan?

- ☒ Public Hearing (Required by GS)
- ☒ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey

☒ Special Mailing ☐ None Required

Summary

Applicant is requesting a rezoning of two parcels, approximately 74.08 acres, from Corridor Commercial (CRM) and Residential Large Lot (RLL) to Conditional Commercial (CZC) zoning district. This is a Type 3 Conditional Rezoning that is accompanied by a Concept Plan. The applicant is proposing to develop a mixture of uses, including commercial and multi-family. If approved, any associated Conditions of Approval and the Concept Plan would run with the land in accordance with NCGS.

Background/History

The application was heard by Planning Board at their July 28, 2025 regularly scheduled meeting. The Planning Board voted to recommend approval with conditions of this application to the Town Council.

Recommendation

Staff is recommending approval with conditions of the rezoning request.

Funding Source

N/A

Cost

N/A

Corresponding Documentation

0_Final TC Staff Report_Heavner CZM_08052025

01_Staff Report Maps_Heavner CZM_07282025

02_Application_Heavner CZM_07072025

03_Neighborhood Meeting Materials_Heavner CZM_07072025

04_TC Adj Property Notice_Heavner CZM_07282025

05_Exhibit A_Updated Concept Plan_Heavner CZM_08082025

06_Updated Conditions_Heavner CZM_08082025

07_Justification Statement Conditions_Heavner CZM_07072025

08_Transportation Impact Analysis_HeavnerCZM_07072025

09_NCDOT Traffic Letter_Heavner CZM_07072025

10_Final Consistency Statement_Heavner CZM_08052025

11_Newspaper Ad Affadavit_August18 TC

12_Supplemental Neighbor Meeting_Heavner CZM_08062025

13_Ordinance_Heavner CZM_07072025

Meeting Timeline

July 28, 2025: Planning Board (Public Meeting)
August 18, 2025: Town Council (Public Hearing)

Submitted By: Haley Downey, Planning

Reviewed By:

Haley Downey, Assistant Planning Director	Approved - Aug 08 2025
Conrad Olmedo, Planning Director	Approved - Aug 11 2025
Courtney Tanner, Deputy Town Manager	Approved - Aug 13 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720
planning@townofclaytonnc.org

Planning Board Public Meeting: July 28, 2025
Town Council Public Hearing: August 18, 2025

STAFF REPORT	
Project Number:	2025-23-CZM
Project Name:	Heavner Property Conditional Rezoning, Type 3
Property Pin #:	165909-05-8421 & 165909-15-8400
Location:	Outside of Town limits located on the southerly side of Clayton Boulevard east of the intersection of Financial Drive, west of the intersection of Fernwood Drive, and south of the intersection of Gateway Drive, addressed as 12649 Clayton Boulevard and an unassigned addressed, and identified as Johnston County Tax IDs 05G02002C and 05G02002D.
Applicant:	CASTO Properties, Tom Lowell Withers Ravenel, Brendie Vega
Property Owner:	Heavner Properties 1997 Limited Partnership & Brightleaf # 2004-II, LLC
Public Noticing Dates:	Sign Posted by deadline of August 8, 2025 Adjacent Property Notice Mailed by deadline of August 8, 2025 Newspaper Ad Published August 6, 2025 and August 13, 2025
Request:	Request to rezone approximately 74.08 acres of land from Residential Large Lot (RLL) and Corridor Commercial (CRM) to Conditional Commercial (CZC) zoning district. This is a Type 3 Conditional Rezoning with a Concept Plan. The Plan includes a mixture of uses, with commercial and multi-family development proposed.

PROJECT OVERVIEW

The applicant is requesting conditional rezoning of two parcels, totaling approximately 74.08 acres, from zoning districts Residential Large Lot (RLL) and Corridor Commercial (CRM) districts to Conditional Commercial (CZC) district. This is a Type 3 Conditional Rezoning, which means it is accompanied by a Concept Plan. If approved, the Concept Plan and Conditions will run with the land. The project's associated Concept Plan includes approximately 51.60 acres of commercial development, with 15.90 acres of multi-family residential development.

The applicant is proposing a 40-foot Type D landscape buffer along existing neighboring residential uses, except for the area within the existing Duke Powerline Easement. Along the southernmost project boundary, the applicant is requesting to preserve existing vegetation in lieu of installation of a Class D buffer per their discussions with the adjacent property owner (see attached meeting minutes). A 20-foot Type A buffer is proposed along undeveloped adjacent commercial properties. No internal

buffering between future outparcels will be required, as this is considered to be a Unified Development. At this time, the applicant is proposing two stormwater ponds. Final location and design of these will be subject to review and approval of Construction Drawings.

Internal circulation patterns are included in the concept plan. These are general in nature, and final circulation will be designed at Site Plan/CD review. The development will have three access points located on Clayton BLVD, two of which will be signalized intersections and one that will be a right-in/right-out out only. The development will make connections to Town Center Blvd, and Scholar Drive as well. Additionally, a limited connection will be made to the existing stub-street Lightfoot Drive. This connection will be made only for emergency vehicle access and will not be accessible to the public. Final design of this limited connection will be determined at Site Plan/CD review and will be subject to approval by the Fire Department. Cross-access connection will be made to the proposed ABC Store, located to the East along Financial Drive, as shown on the Concept Plan. Additionally, staff is recommending in the Conditions of Approval that future cross-access be provided to the vacant/undeveloped parcel to the West of the subject development.

A Transportation Impact Analysis (TIA) was submitted with this request. It was reviewed by the Town's consultant as well as NCDOT. Traffic improvements are outlined in the conditions of approval and are consistent with NCDOT's requirements. The associated TIA and NCDOT review letter are also included as attachments to this staff report.

Conditions of Approval

As outlined in the Conditions of Approval, the applicant is requesting allowance of all uses listed in CRM and CZC, with the exception of those specifically prohibited in the conditions of approval. This is to provide the development with flexibility as they market to potential users.

The Conditions of Approval also include various deviations and additional flexibility from current UDO standards. The applicant has submitted a justification summary of the proposed deviations, which is included as an attachment to this agenda. Since this is a Unified Development, there were discussions with staff regarding the need for flexibility surrounding setbacks, dimensional standards, open space calculations, parking, and internal landscape buffering.

ADJACENT ZONING, LAND USES, AND FUTURE LAND USES			
Direction	**Zoning**	**Existing Land Use(s)**	**Future Land Use**
North	Corridor Commercial (CRM), Office Institutional (OFI), and Residential Large Lot (RLL)	Child Day Care, Office (low intensity), Single-Family Residential (detached)	Employment Center
South	Residential Large Lot (RLL)	Single-Family Residential (detached)	Low Density Residential
East	Residential Large Lot (RLL)	Single-Family Residential (detached)	Community Center and Low Density Residential
West	Residential Low Density (RLD) and	School (Johnston Charter), Retail	Community Center and High Density

	Corridor Commercial (CRM)	(general), Financial Institution	Residential

REVIEW CRITERIA

Per UDO Section 2.3.6.J, "the advisability of approving a Conditional Rezoning application is a matter committed to the legislative discretion of the Town Council and is not controlled by any one factor. In determining whether to adopt or deny a proposed Conditional Rezoning, the Town Council may weigh the relevance of and consider the following:

1. If the application is consistent with the applicable standards in Section 3.3, Conditional Zoning Districts;
2. Whether the proposed Conditional Rezoning advances the public health, safety, or welfare;
3. Whether and the extent to which the proposed Conditional Rezoning is appropriate for its proposed location, and is consistent with the purposes, goals, objectives, and policies of the Town's adopted policy guidance;
4. Whether an approval of the Conditional Rezoning is reasonable and in the public interest;
5. Whether and the extent to which the Concept Plan associated with the Conditional Rezoning is consistent with this Ordinance; and
6. Any other factors the Town Council may determine to be relevant.

CONSISTENCY WITH COMPREHENSIVE PLAN AND FUTURE LAND USE MAP

The Town's Future Land Use Map designates these parcels as High Density Residential with a Community Center overlay. High Density Residential typically includes a variety of housing types, providing housing near major transportation corridors, existing commercial areas, and Downtowns. Community Center Overlay serves larger populations and typically includes major anchor tenants and retailers. These parcels are envisioned to provide a mixture of uses including both commercial and residential development. The proposed Concept Plan includes a mixture of commercial and multi-family development, including a density of up to 12 units/acre. This is consistent with the designation in the Future Land Use Map.

Additionally, the request is consistent with the following Goals & Policies of the 2045 Growth Plan:

Goal LU1: Preserves Clayton's Character while allowing for growth and development in appropriate areas.

- Policy LU 1.2: Encourages developments which incorporate high quality design and enhance the quality of life for existing and future residents of the Town.
- Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.

Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

- Strategy LU 3.1.3: Within larger developments, encourages higher density housing types to be located in those areas with closest proximity to services, amenities, and infrastructure.

PLANNING BOARD CONSIDERATIONS

The Planning Board heard this item for recommendation in a public meeting on July 28, 2025. The Planning Board made a recommendation of ***Approval with Conditions***. Planning Board requested the applicant consider a 10-foot multi-use path along Clayton Blvd instead of the 5-foot sidewalk proposed on the Concept Plan, since the CTP has now been adopted.

The Planning Board also heard comments from several members of the public regarding concerns related to stormwater design, traffic, and impacts on the adjacent neighborhood to the south/east. Planning Board asked staff if there was a 125-foot protected buffer along Dogwood Forest subdivision and staff confirmed there was no legally binding buffer recorded. Planning Board suggested that the applicant meet with residents of the neighborhood prior to Council to discuss concerns further.

Since the Planning Board meeting, the applicant met with residents of the Dogwood Forest neighborhood on August 6, 2025. A summary of this meeting was provided by the applicant and is included in the agenda packet as an attachment. The applicant has since provided updated conditions of approval and an updated Concept Plan. The updated conditions include changes to the buffer language to allow retaining walls within the buffers in an effort to preserve some of the existing vegetation requested by the residents. The applicant also added the 10-foot multi-use path along Clayton Blvd, as per Planning Board's request. Both of these updated items are added as attachments to this staff report.

TOWN COUNCIL CONSIDERATIONS

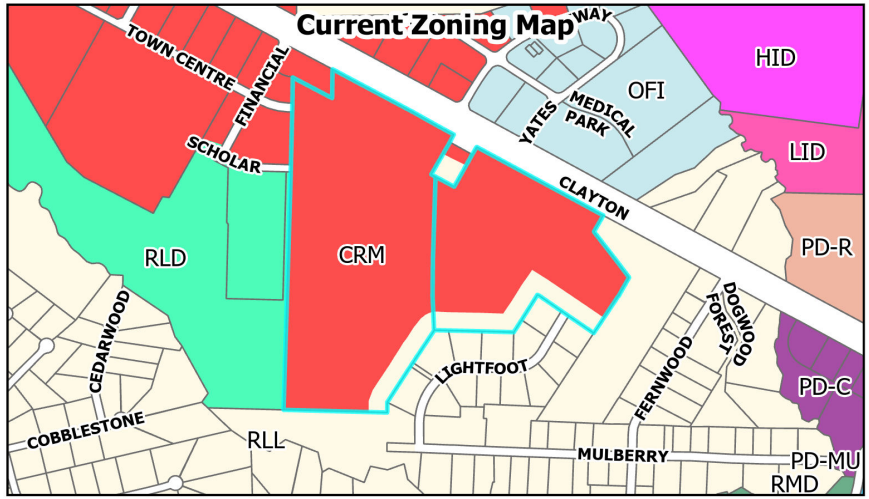
Following the July 28, 2025 Planning Board Meeting, this application is scheduled for a Public Hearing on August 18, 2025.

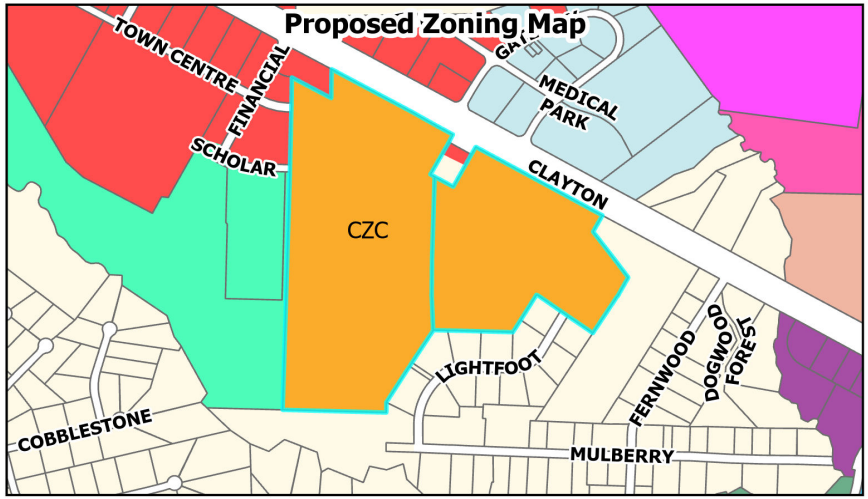
STAFF RECOMMENDATION

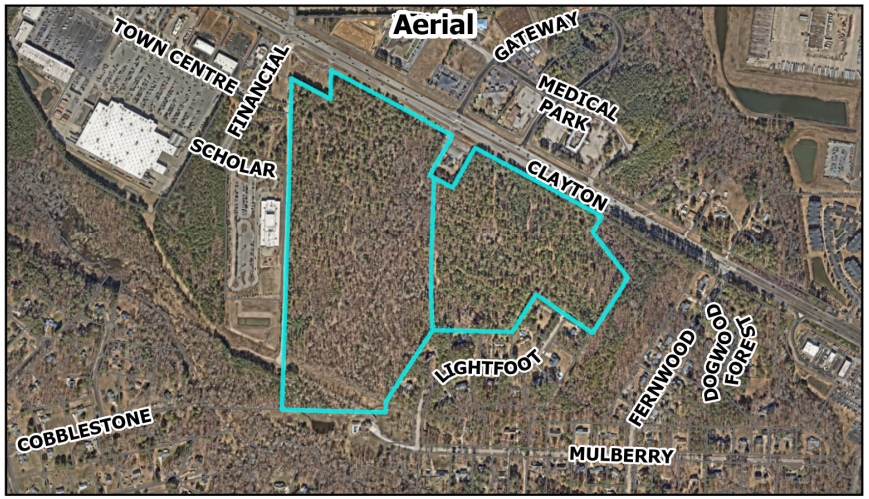
The Technical Review committee has thoroughly reviewed the proposed rezoning and associated concept plan. ***Planning staff is recommending approval, with conditions.***

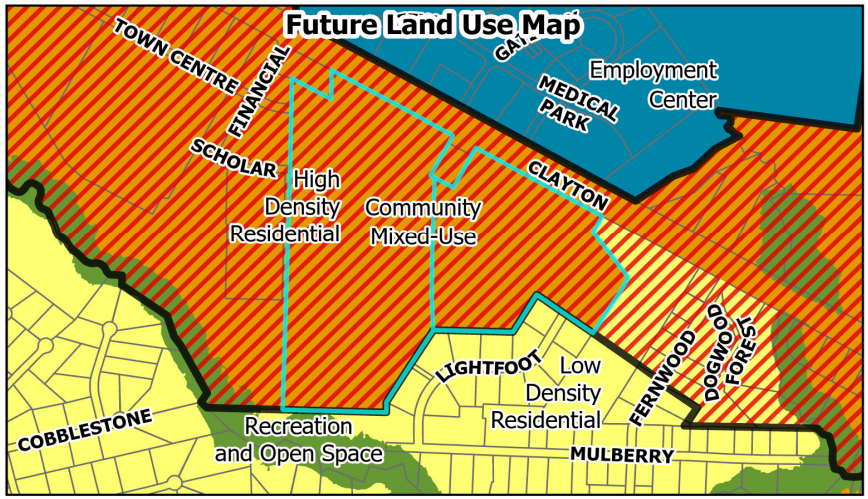
ATTACHMENTS:

1. Staff Report Maps
2. Application
3. Neighborhood Meeting Materials
4. Surrounding Property Owner Notice
5. Exhibit A- Updated Concept Plan
6. Updated Proposed Conditions of Approval
7. Justification Statement from Applicant regarding Conditions
8. Transportation Impact Analysis
9. NCDOT Traffic Letter
10. Consistency Statements Sheet
11. Newspaper Ad Affidavit
12. Supplemental Neighbor Meeting – August 6, 2025
13. Ordinance









Request: Conditional Rezoning - Type III
Project Name: Heavner Property
Project Number: 2025-23-CZM

Applicant: CASTO Properties, Tom Lowell and Withers Ravenel, Brendie Vega
Property Owner: Heavner Properties 1997 Limited Partnership
Tag#: 05G02002C and 05G02002D

Site Location

Staff Report Map
July 24, 2025

N

0 500 1,000 2,000 Feet

Disclaimer: Parcel Boundaries are shown for reference only. The Town of Clayton assumes no legal responsibility for this information.

Docusign Envelope ID: A69D619E-7A4F-4AF3-BDA6-F9BCA952539F

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC27528
Phone: 919-553-5002
Fax: 919-553-1720

CONDITIONAL REZONING, TYPE 3 UNLIMITED W/ CONCEPT PLAN COVER SHEET

Name of Project: Clayton - Heavner Property **Date:** 03/07/2025

Applicant Name: CASTO Southeast Realty Services, LLC / WithersRavenel

The following checklist to be completed by applicant. All materials must be submitted in PDF format.

☒ Pre-Application Meeting on: 02/13/2025

Note: Pre-application meeting must be held no more than 6-months prior to submittal.

☒ Neighborhood Meeting on: 02/26/2025

Note: Neighborhood meeting required to be held no more than 60-days prior to submittal.

- ☑ Review Fee
- ☑ Completed Application
- ☑ Owner's Consent Form
- ☑ List of property owners within 300 feet of subject parcel(s)
- ☑ Neighborhood Meeting Materials
- ☑ Signed & sealed boundary survey
- ☑ Applicant-proposed Conditions of Approval
- ☑ Concept Plan, meeting requirements of UDO
- ☑ Traffic Impact Analysis, as applicable
- ☑ Wastewater Allocation Request, as applicable

Reviewed by: _____

Docusign Envelope ID: A69D619E-7A4F-4AF3-BDA6-F9BCA952539F

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC27528
Phone: 919-553-5002
Fax: 919-553-1720

Conditional Rezoning, Type 3 Unlimited w/ Concept Plan Application

www.ClaytonNC.org/Fees

Applicable Fees: Conditional Rezoning, Unlimited with Associated Concept Plan Fee

APPLICATION TYPE

☑ **New Type 3, Conditional Rezoning** ☐ **Major Modification, modifying:** _____

PROJECT & SITE INFORMATION

Name of Project: Clayton - Heavner Property

Acreage of Property: 74.32 acres **Existing Use:** Vacant

County Tag #: 05G02002C, 05G02002D **NC Pin #:** 165909058421 & 165909158400

Address/Location: 12649 CLAYTON BLVD, Clayton, NC

Existing Zoning District: RLL and CRM **Proposed Zoning District:** Conditional Zoning Commercial

Are you submitting the application under the ordinances and policies in effect at the time of the application for review by the Town of Clayton? ■ **Yes** ☐ **No**

If you answered "No" to the question above, please specify the ordinance(s) and/or policy(ies), including version(s), under which the application is being submitted: The applicant reserves the right to Permit Choice under future ordinances.

Note: Supporting documentation must be submitted with the application.

APPLICANT INFORMATION

Applicant: CASTO Southeast Realty Services, LLC / WithersRavenel

Mailing Address: 215 East Chatham St, Suite 201, Cary NC 27511

Phone Number: 919.234.6711 /919.469.3340 (WR) **Fax:** _____

Contact Person: Tom Lowell - CASTO, Tucker McKenzie & Brendie Vega - WithersRavenel

Email Address: TLowell@castoinfo.com, tmckenzie@withersravenel.com, bvega@withersravenel.com

OFFICE USE ONLY

Date Received: _____ Amount Paid: _____ File Number: _____

Docusign Envelope ID: A69D619E-7A4F-4AF3-BDA6-F9BCA952539F

PROPERTY OWNER INFORAMTION

Name: Heavner Properties 1997 Limited Partnership & Brightleaf # 2004-II, LLC (Dan and Cecil Heavner)

Mailing Address: PO BOX 2346, Smithfield, NC 27577

Phone Number: Dan Heavner 919-934-0551; Cecil Heavner 919-934-6184 **Fax:** n/a

Email Address: info@nc-furniture-market.com

EXPLANATION OF PROJECT

Please provide detailed information concerning all requests. Attach additional sheets if necessary.

The project is a mixed-use development consistent with the Clayton adopted comprehensive and land use plans. The project will provide for a mix of uses including at least one major anchor, a shopping center housing community serving commercial uses, out parcels for individual business spaces, multifamily residential, and open space consisting of plazas and amenities. The project will be accessible by roads and pedestrian networks. Housing is provided near a major transportation corridor and existing commercial. The design will be thoughtful to create welcoming and inviting spaces for residents and visitors.

REVIEW CRITERIA

Please provide a response to each Review Criteria listed below. Attach additional sheets if necessary.

1. If the application is consistent with the applicable standards in Section 3.3, Conditional Zoning Districts, of the Unified Development Ordinance.

   See attached for all review criteria.

2. Whether the proposed Conditional Rezoning advances the public health, safety, or welfare.

3. Whether and the extent to which the proposed Conditional Rezoning is appropriate for its proposed location, and is consistent with the purposes, goals, objectives, and policies of the Town's adopted policy guidance.

4. Whether an approval of the Conditional Rezoning is reasonable and in the public interest.

_____
_____
_____

5. Whether and the extent to which the Concept Plan associated with the Conditional Rezoning is consistent with this ordinance.

_____
_____
_____

CONCEPT PLAN REQUIREMENTS:

At minimum, the Concept Plan associated with a Type 3 Conditional Rezoning application shall include the following elements as required by the UDO. Please confirm inclusion of these items in your submittal.

Provided		
Yes	No	
☑	☐	General location of development areas, identified by land use(s) and/or development density or intensity.
☑	☐	General configuration and relationship of the principal elements of the proposed development, including general building types.
☑	☐	Identification of, for the entire district and each development area, the acreage, types, and mix of land uses, number of residential units (by use type), non-residential floor area (by use type), residential density, and non-residential intensity (floor area square footage).
☑	☐	General location, amount, and type (whether designated for active, passive, or gathering area) of open space set-aside.
☑	☐	The location of environmentally sensitive lands, wildlife habitat, and resource protection lands;
☑	☐	The on-site transportation circulation system, including the general location of all streets, existing or projected transit service, pedestrian, and vehicular circulation features, and how they will connect with existing and planned systems.
☑	☐	The general location of on-site potable water and wastewater facilities, and how they will connect to existing systems.
☑	☐	The general location of all other on-site public facilities serving the development, including but no limited to parks, schools, bus shelters, and facilities for fire protection, police protection, EMS, and solid waste management.
☑	☐	The applicable dimensional standards, including consistency with the conditional zoning district dimensional requirements or any requested deviations.

Docusign Envelope ID: A69D619E-7A4F-4AF3-BDA6-F9BCA952539F

APPLICANT AFFIDAVIT

I understand that by signing this application I am legally bound to the representation, terms, and conditions herein. By signing below, I certify that I was technically able to read and had a reasonable opportunity to read this disclosure. I further acknowledge that I am authorized to submit this application, and any subsequent revisions thereto, and confirm having obtained permission from the property owner/occupant for the application and the Town's entry onto the property, if applicable. I further authorize Town of Clayton representatives to enter the site for purpose of conducting inspections or evaluations to determine compliance with applicable laws, policies, and manuals. I hereby certify that all of the information provided in this application and any attached documents is true, accurate, and complete to the best of my knowledge. I understand that any false information may result in rejection of the application or revocation of the permit or plan. I understand this submittal with its related materials and all attachments become official records of the Town of Clayton, North Carolina, and will not be returned. I understand this application and any communication, approval, or resulting permits issued as a result of this application are subject to disclosure pursuant to the North Carolina Public Records Act. I also acknowledge that, pursuant to NCGS § 143-755(b1), failure to respond to Town comments or holding the permit application on hold for six consecutive months or more will result in the cessation of review and forfeiture of all application fees, requiring a new application under current regulations. I shall not hold the Town of Clayton, its officers, employees and agents liable for any claims, losses, liabilities, expenses, charges or damages arising from or relating to incomplete, inaccurate, or false applications, or any additional supplemental applications, with respect of any cause arising out of, resulting from, or in connection with the application or permit.

Thomas Lowell	Signed by: Thomas Lowell 31194B8413724A2...	03/27/2025
Print Name	***Signature of Applicant***	***Date***

Docusign Envelope ID: A69D619E-7A4F-4AF3-BDA6-F9BCA952539F

Review Criteria Attachment

1. If the application is consistent with the applicable standards in Section 3.3, Conditional Zoning Districts, of the Unified Development Ordinance

   The application is consistent with the applicable standards in Section 3.3. Any conflicts within this application, Section 3.3, and other sections of the UDO are not intentional.

2. Whether the proposed Conditional Rezoning advances the public health, safety, or welfare.

   The proposed conditional rezoning will make needed improvements to signalization and frontage along Clayton Blvd, provide additional access to Scholar Drive and Town Centre Blvd, thereby creating greater connectivity and safety at this location.

   The project will extend public water and sewer to provide for adequate fire flow to provide for the safety of the future residents, tenants, and the public at this development.

   The addition of a mixed-use development will allow more residents to stay in Clayton for goods, dining and services, keeping tax dollars in the City and County.

   The project will be annexed (contiguous) into the Town of Clayton providing an increased tax base.

3. Whether and the extent to which the proposed Conditional Rezoning is appropriate for its proposed location, and is consistent with the purposes, goals, objectives, and policies of the Town's adopted policy guidance.

   The Clayton Comprehensive Plan and Future Land Use Map call for High Density Residential (HDR) and Community Center (CC) on the parcels. The project will be consistent with these designations.

   The project will meet the goals stated:

   - *The project will serve a larger trade area of three-to-six miles and is located adjacent to Clayton Boulevard, a major thoroughfare.*
   - *There will be at least one major anchor such as a grocery store or retailer.*
   - *The project will incorporate community-serving commercial uses and opportunities for office, civic, and institutional uses.*
   - *Multifamily residential will be integrated into the mix of uses.*
   - *Multifamily residential will be located in close proximity to shopping and services.*
   - *All portions of the development will be accessible by a convenient road and pedestrian network.*
   - *Housing is provided near a major transportation corridor and existing commercial.*
   - *The project will be served by public water and sewer.*
   - *The high density residential provides for a transition between lower density residential and commercial uses.*
   - *Open space will consist of tree preservation, plazas, and amenities.*

Docusign Envelope ID: A69D619E-7A4F-4AF3-BDA6-F9BCA952539F

4. Whether an approval of the Conditional Rezoning is reasonable and in the public interest.

   The request for conditional rezoning is reasonable and in the public interest for the following reasons:

   - *The conditional rezoning is consistent with the adopted comprehensive and land use plans.*
   - *The conditional rezoning request mixes uses to provide a walkable neighborhood for those who reside there*
   - *The development of a vacant parcel providing needed goods, dining, and residential uses will allow more residents to stay in the community rather than travel to nearby communities.*
   - *Shopping centers provide additional employment opportunities for residents with varied skill and educational levels, providing more opportunities for residents of Clayton to find employment in their community.*
   - *Multifamily residential provides housing opportunities for younger residents and those who want to live in a community near goods, dining, and services.*
   - *The parcels will be annexed into the Town of Clayton increasing the tax base on a currently vacant parcel.*
   - *Transportation improvements will provide for a signalized intersection, improving conditions currently experienced in this area.*

5. Whether and the extent to which the Concept Plan associated with the Conditional Rezoning is consistent with this ordinance.

   The attached Concept Plan associated with the Conditional Rezoning is consistent with the ordinance and the variations from the ordinance requested in the Conditions of Approval.

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Clayton - Heavner Property **Address or PIN #:** 165909-05-8421 AND 165909-15-8400

AGENT/APPLICANT INFORMATION:

Amber Mason & Tucker McKenzie - WithersRavenel
(Name - type, print clearly)

137 South Wilmington Street, Suite 200
(Address)
Raleigh, NC 27601
(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (***list applicable requests***):

Rezoning, Site Plan, Subdivision, Plats

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

Cecil B Heavner
(Name - type, print clearly)

P.O. Box 1166
(Address)

Cecil B Heavner
(Owner's Signature)

Smithfield NC 27577
(City, State, Zip)

STATE OF North Carolina
COUNTY OF Johnston

Sworn and subscribed before me _____, a Notary Public for the above State and County, this the 13 day of February, 2025.

MARION A. YOUNG NOTARY PUBLIC JOHNSTON COUNTY, N.C.

SEAL

Notary Public

My Commission Expires: 9-6-29

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

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(Name - type, print clearly)

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OWNER AUTHORIZATION:

DAN HEAVNER
(Name - type, print clearly)

PO Box 2346
(Address)

(Owner's Signature)

Smithfield NC 27577
(City, State, Zip)

STATE OF North Carolina
COUNTY OF Johnston

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AGENT/APPLICANT INFORMATION:

Tom Lowell - Casto Southeast Realty Services, LLC
(Name - type, print clearly)

215 East Chatham Street, Suite 201
(Address)
Cary, NC 27511
(City, State, Zip)

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OWNER AUTHORIZATION:

Cecil Heavner
(Name - type, print clearly)

P.O. 12[illegible]
(Address)

Cecil B Heavner
(Owner's Signature)

Smithfield N.C. 27577
(City, State, Zip)

STATE OF North Carolina
COUNTY OF Johnston

Sworn and subscribed before me _____, a Notary Public for the above State and County, this the 13 day of February, 2025.

MARION A. YOUNG NOTARY PUBLIC JOHNSTON COUNTY, N.C.

SEAL

Marion A Young
Notary Public

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OWNER AUTHORIZATION:

DAN HEAVNER
(Name - type, print clearly)

Dan Heavner
(Owner's Signature)

PO Box 2346
(Address)

Smithfield NC 27577
(City, State, Zip)

STATE OF North Carolina
COUNTY OF Johnston

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Marin A. Young
Notary Public

MARIN A. YOUNG NOTARY PUBLIC JOHNSTON COUNTY, N.C.

SEAL

My Commission Expires: 9-6-29

WithersRavenel
Our People. Your Success.

February 14, 2025

Dear Clayton Area Property Owner:

The purpose of this letter is to notify you of an application to be filed with the Town of Clayton for a rezoning involving property adjacent to, or in close proximity to, property shown in your ownership by Johnston County tax records. Per Town of Clayton regulations, a Neighborhood Meeting will be held to provide information to area residents about the proposal. Representatives of the applicant team will be present to explain the application, answer questions, and solicit comments.

Meeting Date:	**February 26, 2025**
Meeting Time:	**6:00 p.m.**
Meeting Location:	**Clayton Community Center – Activity Room #111** **715 Amelia Church Road** **Clayton, NC 27520**
Type of Application:	Conditional Rezoning
Project Name:	Clayton – Heavener Property
Property address:	12649 Clayton Blvd (PINS 165909-05-8421 & 165909-15-8400)

Description of Proposal:
A rezoning is being requested to change the identified parcels from Corridor Commercial (CRM) & Residential Large Lot (RLL) to Conditional Zoning – Commercial and Residential to allow for the development of commercial and multifamily residential.

Upcoming public meetings for this application (Planning Board and Town Council):
The public meetings are yet to be determined; however, it is anticipated that the earliest meeting dates would be Planning Board on June 23, 2025 and Town Council on July 21, 2025.

At a minimum, the following will be available for your inspection at the Neighborhood Meeting:

1. A copy of the project application.
2. A schedule of all upcoming public meetings for the application (subject to change).
3. A map showing the location of the project.
4. An exhibit showing the requested zoning map amendment.

A map is enclosed with this letter showing the location of the property that is subject to this application for rezoning. If you have any questions prior to or after this meeting, you may contact me at 919.535.5212 or bvega@withersravenel.com. You may also contact the Town of Clayton Planning Department at 919-553-5002.

Sincerely,

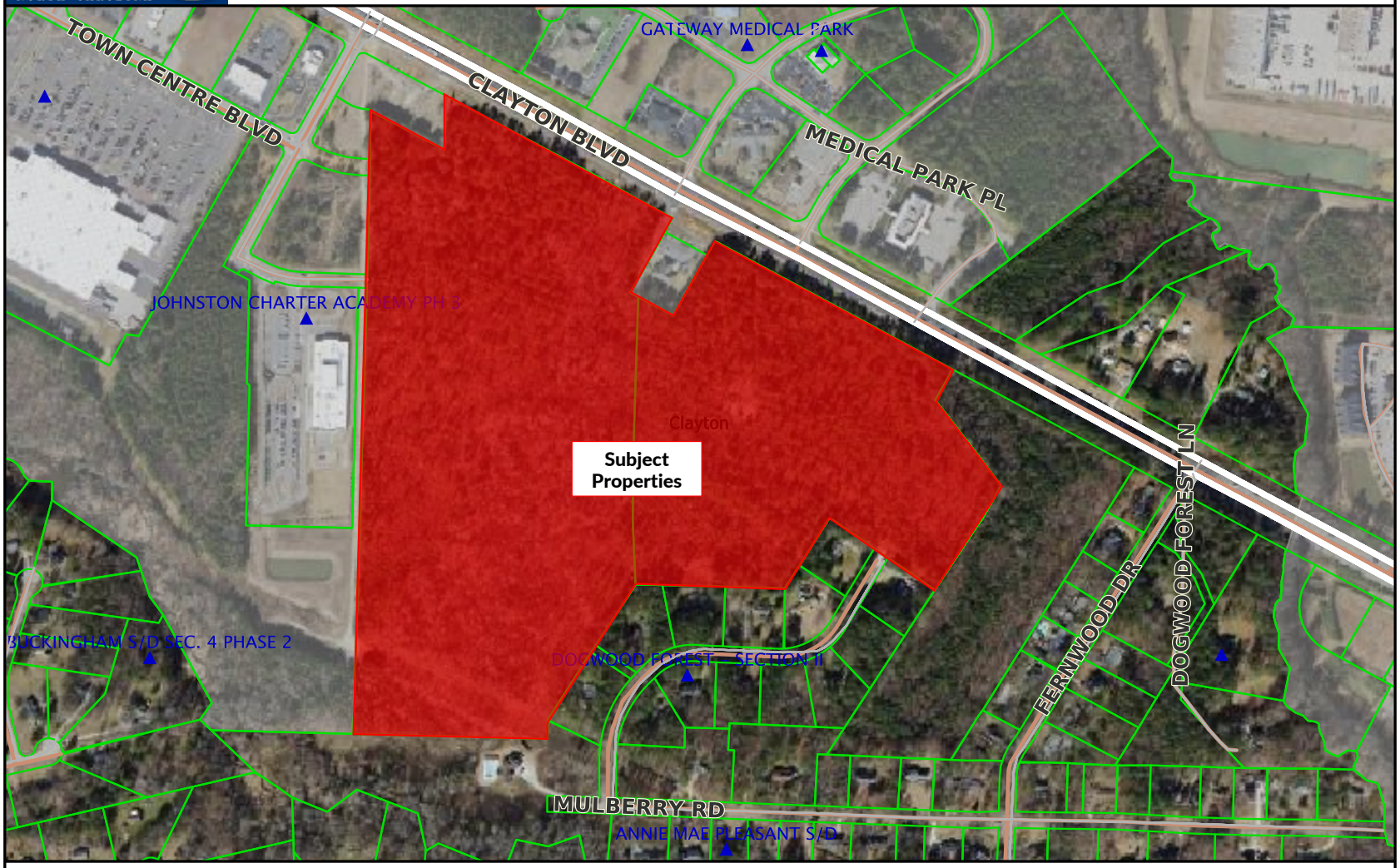
Brendie Vega

Brendie Vega, AICP, CNU-A
Senior Entitlements Manager

167 East Chatham Street, Suite 210 | Cary, NC 27511
t: 919.469.3340 | f: 919.467.6008 | www.withersravenel.com | License No. F-1479
Asheville | Cary | Charlotte | Greensboro | Pittsboro | Powells Point | Raleigh | Southern Pines | Wilmington

*** DISCLAIMER ***

Johnston County assumes no legal responsibility for the information represented here.



Scale: 1:6000 - 1 in. = 500 feet

(The scale is only accurate when printed landscape on a 8 1/2 x 11 size sheet with no page scaling.)

Johnston County GIS
February 13, 2025

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: CLAYTON-HEAVNER PROPERTY

Application: CONDITIONAL ZONING

Location/Date: CLAYTON COMMUNITY CENTER / FEB 26, 2025

	NAME	ADDRESS
1	Bill Brewer	744 LIGHTFOOT Dr
2	Mittie Sue Brewer	" " "
3	ART MERCER	741 LIGHTFOOT DR
4	JOY MERCER	741 LIGHTFOOT DR
5	Dan Shaw	728 Lightfoot Dr
6	JW Beasley	728 Lightfoot Dr.
7	Chris Grimes	0215 E Chatham ste 201
8	CHRISTIAN LAEGN	520 HILLSBOROUGH RD RALEIGH
9	Thomas A Rhodes	732 Lightfoot Dr, Clayton
10	Matt Wood	736 Lightfoot
11	Sable Dayhoff	1008 Mulberry Rd Clayton NC.
12	Barry Morris	725 Lightfoot Dr. Clayton NC
13	Tom LAMB	924 Pebblebrook DR Ral NC
14	Nick Ferez	780 Lightfoot Dr. Clayton NC 27520
15	David Brunner	1105 Carrington Dr. Raleigh, NC
16		
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18		
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NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: CLAYTON – HEAVNER PROPERTY

Application: CONDITIONAL ZONING

Location/Date: CLAYTON COMMUNITY CENTER / FEB 26, 2025

	NAME	ADDRESS
1	Shelley Smith	1007 Mulberry Rd Clayton NC 27520
2	Brendie Vega	115 MacKenan Dr Cary NC 27511
3	Tucker McKenzie	167 E Chatham Street Cary NC 27511
4	Tay Lovell	215 E CHATHAM ST. CARY, NC 27511
5	Tom + Kim Mitchell	917 Mulberry Rd Clayton
6	Shannon Dixon	313 Chrismill Holly Springs
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Neighborhood Meeting Summary

Application:	Clayton - Heavner Property
Date of Mailing:	February 14, 2025
Date of Meeting:	February 26, 2025 Time of Meeting: 6 pm
Location of Meeting:	Clayton Community Center Rm #111, 715 Amelia Church Rd. Clayton
Printed Name:	Tom Lowell Signature: Thomas Lowell

Meeting Summary/ Minutes:

Tom Lowell, CASTO, Tucker McKenzie & Brendie Vega, WithersRavenel made a presentation to the neighbors. Other team members from CASTO and Kimley-Horn were present for questions.

The presentation included an introduction to CASTO and the team; information regarding the overall process and a focus on the rezoning process; the current zoning and future land use; a concept plan showing potential locations of anchor retailers, additional retail, restaurant, and frontage lots, along with some multifamily residential on the south side of the property; a series of architectural visioning concepts showing the intent is to create a high-quality place with places and spaces to enjoy, including areas for outdoor dining; followed by a question and answer. Questions were taken throughout the presentation and at the Q&A period.

Questions/ Comments/ Concerns

- A few residents indicated that there was a promised buffer on the western side of the project area that was somewhere between 150 ft and 300 ft. There was no clear recollection of the width of the buffer, however resident Bill Brewer noted that the split zoning on the property is due to this promised buffer. Mr. Brewer also provided Town Council meeting dates of April 28, 2003 and June 16, 2003 to the team to look into the promised buffer. Residents asked Mr. Lowell if he would commit to that promised buffer.

  Response: The team saw the split zoning but was not aware of prior commitments and how they may relate to this project. Mr. Lowell let the neighbors know that it was not brought up at the pre-application meeting with the Town, but the team would look into it. Mr. Lowell further said he could not commit to the promised buffer of 150' to 300', it would make the project unfeasible. A 40' buffer with existing trees to be supplemented will remain on the eastern edge of the project area. A reduction in the buffer will be requested along the non-residential side of the project area to the west.

  On the day following the meeting, the team pulled the minutes and the recorded Special Use Permit from 2003 for the parcel with tax parcel number 05G02001A, which is not one of the proposed rezoning parcels indicated by Mr. Brewer. There was no clear indication that a commitment was made other than the proposed project on an adjacent parcel would support the residents in advocating that the Heavner property provide the strictest buffer available, if developed with commercial. No other information was found on the buffer width, or how it would tie a 3rd party into the commitment made. A request for additional information has been made to the Town of Clayton in order to respond to the request by the neighbors.
- Uses adjacent to existing residences, internal project roadways, drive aisles, parking and potential fencing came up throughout the meeting.

Response: A multi-family use along with their drive aisles and parking would be on the southern side with the building being placed further away and the drive aisle and parking closer to the buffer. Care will be taken to keep trash compactors or dumpsters away from existing residences. On the northern side of the site, care will be taken to orient loading docks away from existing residential. A buffer of 40' in width with existing vegetation and supplemented is proposed. Mr. Lowell indicated that he is open to discussing fencing adjacent to existing residents where it makes sense to do so.

- A question was asked on whether there would be any uses or buildings to the south of the existing electric transmission line.

  Response: There are no uses other that stormwater control measures (SCMs) proposed south of the existing electric transmission line.

- Questions on water and sewer/ septic were asked. Some residents indicated that they are on well and septic.
  Response: This project will tie into public water at US 70 and to public sanitary sewer.

- A resident noted that they did not see a connection to their public road, Lightfoot Drive, and they prefer it stay that way, and want the buffer along the end of the road so it isn't accidentally accessed.

  Response: There is no intention to connect to the public road, we will work with the Town of Clayton to keep it closed and work with the Fire Marshall to see how it can be addressed.

- Questions on stormwater came up, and a resident asked if the stormwater ponds shown dividing the commercial and residential on the concept plan could be moved adjacent to existing residential instead of having buildings and drive aisles with parking there.

  Response: Mr. Lowell asked the question if that was possible from an engineering/ planning perspective, would the residents prefer to have stormwater ponds adjacent to them. Would that be something supported by residents. Some answered yes. Mr. Lowell said the team would look into that and see if it is possible to move stormwater to that side of the site on the south side of the project. Mr. Lowell said he can only look at that on the south side where the concept shows residential.

- The residents asked if Mr. Lowell could reveal the potential tenants he is speaking to as he indicated in his presentation that there is interest in the site.

  Response: Unfortunately, those potential tenants cannot be disclosed at this time, however, if the residents would say that the slides show Tier A tenants, then yes, he is speaking with Tier A tenants. He indicated that first he works to fill the anchors, and then the smaller boxes, such as a pet supply, craft retailer, beauty retailer, and then the restaurants and hopefully local business owners. Because CASTO is not a publicly traded company, they can work with local businesses as well as national ones. CASTO likes to retain their properties and wants to be good neighbors.

- Currently trash flies into the neighborhood from Walmart and Clayton Blvd. The trash is going to get worse with more businesses. What will be done to contain trash on the site?

Response: CASTO maintains its properties with an on-site presence so trash will be picked up. The apartments will have a trash compactor (likely) and residents will either take their trash there or they would have valet service where their trash is picked up and taken to the compactor. If there are issues with trash blowing into the neighborhood, a call can be made to CASTO to help alleviate the situation. It was stated again that CASTO wants to be a good neighbor to existing residents.

- Many concerns were raised regarding current traffic in the area, and fears over increased traffic with this project. Kevin Dean from Kimley-Horn provided that while the traffic study is not complete, there have been some conversations with NCDOT and it looks positive that a traffic signal at the main entrance across from Gateway Drive was appropriate for consideration with this project. This improvement, which would include removal of existing median, would also provide full-movement access for users to/from the north side of US 70 along Gateway Drive. There will be frontage improvements including turn lanes. Other access points on the site would be restricted movements. All of this would be subject to review and approval of NCDOT and the Town.

  Specific concerns included:
  - The current traffic at Johnston Charter Academy. Concerns over connecting Scholar Drive to the shopping center and cut through traffic heading towards the Charter Academy.

    Response: additional connectivity and access to a traffic signal at Gateway Drive will provide additional ways in and out for the Charter Academy and limit the amount of project traffic that would be incentivized to use connections in front of the Charter Academy.

  - Currently it is impossible to make a turn onto Clayton Blvd, rush hour starts at 2 pm. It would be helpful if a turn-lane was added from the shopping center to Shotwell Road.

    Response: NCDOT is currently making improvements to the Shotwell Road intersection. Mr. Dean went through those improvements and said they should start in 2025, but cannot say for sure. The addition of dual left-turn lanes on both EB US 70 and Shotwell Road should help alleviate some issues as through movements will have more dedicated time with the reduction in left turn time. A signal at Gateway Drive should help in providing gaps for vehicles to exit onto Clayton Blvd at adjacent intersections.

- A request for an additional neighborhood meeting was made by some residents.

  Response: Mr. Lowell stated that if there are big changes then yes, a neighborhood meeting would be in order. He said a smaller gathering may be an option. Mr. Lowell provided his contact information for anyone to call or email him. The project team also provided contact information. Mr. Lowell suggested that they organize together and designate a representative so that everyone is getting the same information.

Town of Cla
Planning Depart
111 E. Second Street, Clayton, NC
P.O. Box 879, Clayton, NC
Phone: 919-553
Fax: 919-553

August 8, 2025

PUBLIC NOTICE

SUBJECT: **Project:** 2025-23-CZM Heavner Property Type 3 Conditional Rezoning

Location: Located off Clayton Blvd, south of Gateway Drive and Yates Drive

PIN #(s): 165909-05-8421 & 165909-15-8400

Applicant: CASTO Properties, Tom Lowell & Withers Ravenel, Brendie Vega

Dear Clayton Area Property Owner:

Notice is hereby given that the Clayton Town Council will hold a public hearing on Monday, August 18, 2025 at 6 p.m. in the Council Chambers at Town Hall, 111 E. Second Street, regarding the above referenced conditional rezoning application.

This application is a request to rezone two parcels, approximately 74.08 acres, from Residential Large Lot (RLL) and Corridor Commercial District (CRM) to Conditional Commercial (CZC). This is a Type 3 Conditional Rezoning request, which means that it is accompanied by a Concept Plan. The applicant is proposing approximately 51.60 acres of commercial development and 15.90 acres of multi-family residential development (12 units/acre).

Based upon records in the Johnston County Tax Office, you are the owner of property that is within 300 feet of this proposed rezoning request. You are invited to attend this hearing and express your opinions on this request.

If you should need additional assistance or information, please contact the Planning Department at (919) 553-5002 or email me at hdowney@townofclaytonnc.org

Sincerely,

Haley Downey

Haley Downey, AICP, CZO
Assistant Planning Director

Town of Cla
Planning Depart
111 E. Second Street, Clayton, NC
P.O. Box 879, Clayton, NC
Phone: 919-553
Fax: 919-553

8 de agosto de 2025

AVISO PÚBLICO

ASUNTO: **Proyecto:** 2025-23-CZM Heavner Propiedad Tipo 3 Rezonificación Condicional

Ubicación: Ubicado junto a Clayton Blvd, al sur de Gateway Drive y Yates Drive

Números de PIN: 165909-05-8421 y 165909-15-8400

Solicitante: CASTO Properties, Tom Lowell & Withers Ravenel, Brendie Vega

Estimado propietario de propiedad en el área de Clayton:

Por la presente, se notifica que el Ayuntamiento de Clayton celebrará una audiencia pública el lunes 18 de agosto de 2025 a las 18:00 h en la Sala del Ayuntamiento, ubicada en 111 E. Second Street, en relación con la solicitud de rezonificación condicional mencionada anteriormente.

Esta solicitud solicita la rezonificación de dos parcelas, de aproximadamente 74.08 acres, de Lote Residencial Grande (RLL) y Distrito Comercial Corredor (CRM) a Comercial Condicional (CZC). Esta es una solicitud de Rezonificación Condicional Tipo 3, lo que significa que se acompaña de un Plan Conceptual. El solicitante propone aproximadamente 51.60 acres de desarrollo comercial y 15.90 acres de desarrollo residencial multifamiliar.

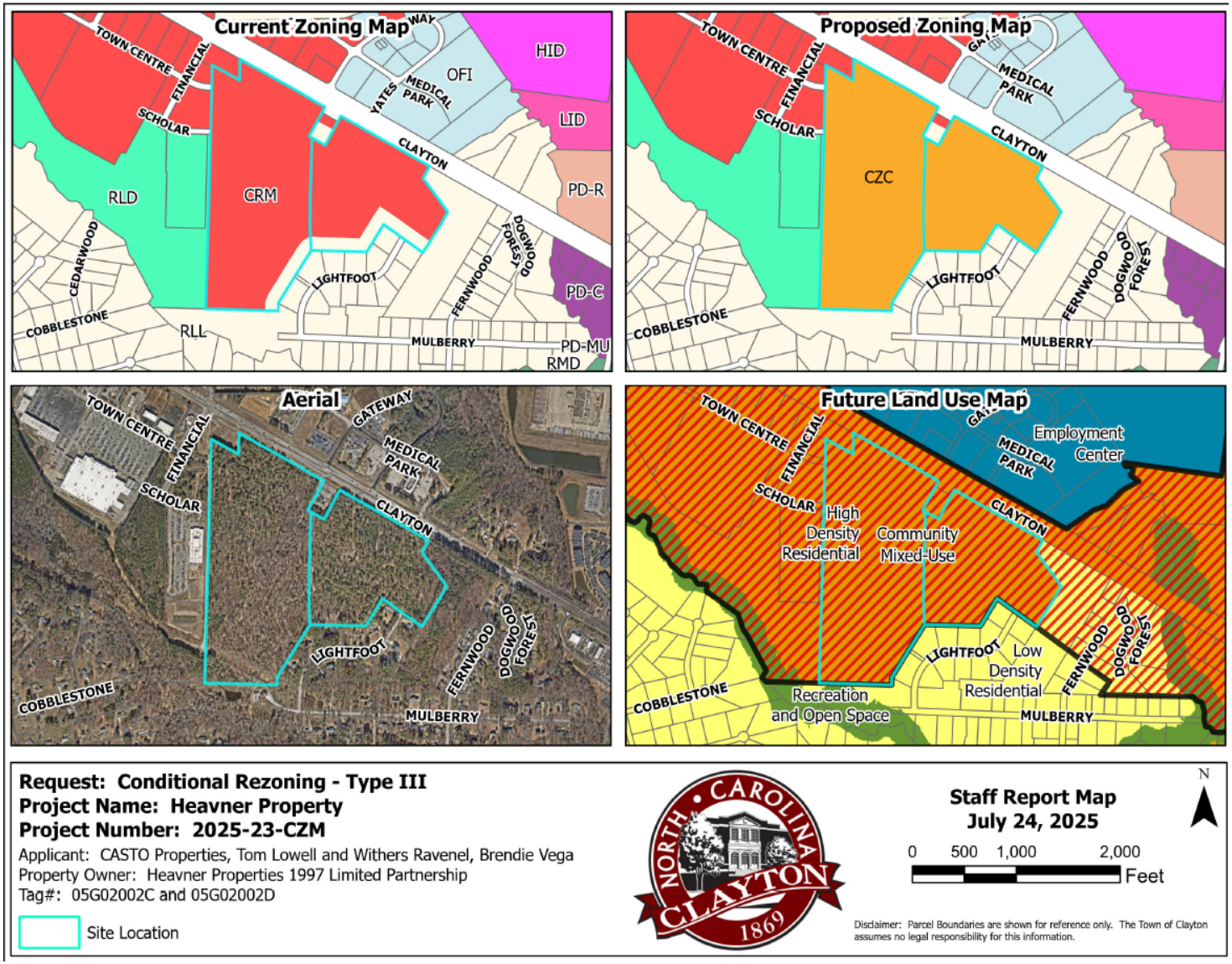
Según los registros de la Oficina de Impuestos del Condado de Johnston, usted es el propietario de una propiedad que se encuentra a menos de 300 pies de esta solicitud de rezonificación propuesta. Le invitamos a asistir a esta audiencia y a expresar su opinión sobre esta solicitud.

Si necesita ayuda o información adicional, comuníquese con el Departamento de Planificación al (919) 553-5002 o envíeme un correo electrónico a hdowney@townofclaytonnc.org.

Atentamente,

Haley Downey

Haley Downey, AICP, CZO
Subdirectora de Planificación


Current Zoning Map
TOWN CENTRE
FINANCIAL
SCHOLAR
GATEWAY
YATES
MEDICAL PARK
OFI
HID
LID
CLAYTON
PD-R
RLD
CRM
CEDARWOOD
LIGHTFOOT
FERNWOOD
DOGWOOD FOREST
PD-C
COBBLESTONE
RLL
MULBERRY
PD-MU
RMD
Proposed Zoning Map
CZC
Aerial
Future Land Use Map
Employment Center
High Density Residential
Community Mixed-Use
Low Density Residential
Recreation and Open Space
Request: Conditional Rezoning - Type III
Project Name: Heavner Property
Project Number: 2025-23-CZM
Applicant: CASTO Properties, Tom Lowell and Withers Ravenel, Brendie Vega
Property Owner: Heavner Properties 1997 Limited Partnership
Tag#: 05G02002C and 05G02002D
Site Location
NORTH • CAROLINA
CLAYTON
1869
Staff Report Map
July 24, 2025
N
0 500 1,000 2,000
Feet
Disclaimer: Parcel Boundaries are shown for reference only. The Town of Clayton assumes no legal responsibility for this information.



LEGEND

- PROPERTY BOUNDARY
- UTILITY EASEMENT
- STREAM
- EXISTING WATER
- EXISTING FORCEMAIN
- PROPOSED SEWER
- PROPOSED SEWER
- PRIMARY CIRCULATION
- CROSS ACCESS
- COMMERCIAL
- MULTFAMILY RESIDENTIAL
- NEUSE RIVER BUFFER
- WETLANDS
- PERIMETER BUFFER
- SITE ACCESS A RIGHT-IN/RIGHT-OUT
- SITE ACCESS B FULL ACCESS
- SITE ACCESS C LEFT-IN/RIGHT-IN/RIGHT-OUT
- SECONDARY ENTRANCE

* NOTES: WETLANDS, STREAMS AND NEUSE BUFFERS ARE SHOWN APPROXIMATELY, BASED UPON FIELD OBSERVATIONS. FINAL ALIGNMENT OF THESE FEATURES IS SUBJECT TO THE RESULTS OF FIELD SURVEY AND MAY VARY SLIGHTLY FROM THAT SHOWN HEREON.
**20' TYPE A BUFFER SHOWN ADJACENT TO VACANT PARCELS MAY BE ELIMINATED IF ADJACENT PARCEL IS REZONED TO A COMMERICAL DISTRICT.
1. PHASING WILL BE DETERMINED AT TIME OF SITE PLAN AND/OR MAJOR SUBDIVISION PLAN
2. MULTI-USE PATH WILL BE PROVIDED ALONG US HWY 70, LOCATION AND DESIGN WILL BE DETERMINED AT TIME OF SITE PLAN AND/OR MAJOR SUBDIVISION.

SITE DATA		
FUTURE LAND USE	EXISTING	HIGH DENSITY RESIDENTIAL AND COMMUNITY CENTER
	PROPOSED	NO CHANGE
ZONING	EXISTING	RLL and CRM
	PROPOSED	Conditional Zoning Commercial
AREA OF TRACTS	PINS:	165909-05-8421 & 165909-15-8400
	TOTAL ACREAGE	74.32 Acres
REQUESTED SEWER CAPACITY	246,450 GPD	

DIMENSIONAL STANDARDS FOR OVERALL SITE AND NONRESIDENTIAL AREAS				
MAX. RESIDENTIAL DENSITY	12.0 DU/AC [a] 475 UNITS MAX		MIN. STREET SETBACK	5 FT
MIN. LOT WIDTH	0 FT		MIN. SIDE SETBACK	5 FT
MAX LOT COVERAGE	75% OF LOT AREA [b]		MIN. INTERNAL SIDE SETBACK	0 FT
MIN. OPEN SPACE	5% OF LOT AREA [c]		MIN. SPACING BETWEEN BUILDINGS [d]	PER ZONING CONDITION OR NC BUILDING CODE, WHICHEVER IS GREATER
MAX BUILDING HEIGHT	60 FT		MIN. PERIMETER SETBACK FOR MULTI-BUILDING AND UNIFIED DEVELOPMENTS	5 FT
MAX. BUILDING HEIGHT FOR HOTELS AND OFFICE BUILDINGS	75 FT			

a. Max. Residential Density will be applied across the entire project area and not on a per lot basis.

b. Max. Lot Coverage will be applied across the entire project area and not on a per lot basis.

c. Min. Open Space Set-Aside will apply to the entire project area and not on a per lot basis, except for the multifamily which will meet its own Open Space and not be used towards the non-residential Open Space. SCM #1 as shown on the conceptplace may be used towards the nonresidential Open Space.

d. Building to building setbacks shall be in accordance with dimensional requirements outlined in this Conditional Zoning, or in accordance with NC Building Code requirements, whichever is greater.

DIMENSIONAL STANDARDS FOR MULTIFAMILY RESIDENTIAL AREAS				
Min. Lot Area (sf)	20,000		Min. Rear Setback	5 FT
Max. Building Height (ft)	60		Min. Spacing Between Buildings (ft)	Per zoning conditions or NC Building Code, whichever is greater
Min. Street Setback (ft)	5		Min. Perimeter Setback	5 FT
Min. Side Setback (ft)	5			

THIS CONCEPT PLAN IS INTENDED FOR ILLUSTRATIVE PURPOSED ONLY. ALL DEPICTIONS OF SITE LAYOUT, LAND USES, DENSITIES, BUILDING PLACEMENTS, UTILITIES, ROADWAY IMPROVEMENTS, AND OTHER FEATURES ARE CONCEPTUAL IN NATURE AND SUBJECT TO REFINEMENT DURING THE DEVELOPMENT PROCESS BUT IN KEEPING WITHIN THE MAXIMUM DENSITY, DIMENSIONAL STANDARDS, AND GENERALLY IN THE AREAS DEPICTED. IN THE EVENT OF ANY CONFLICT BETWEEN THIS CONCEPT PLAN AND THE WRITTEN CONDITIONS OF APPROVAL, THE WRITTEN CONDITIONS SHALL GOVERN.

CLAYTON - HEAVNER PROPERTY - REZONING # 2025-23-CZM

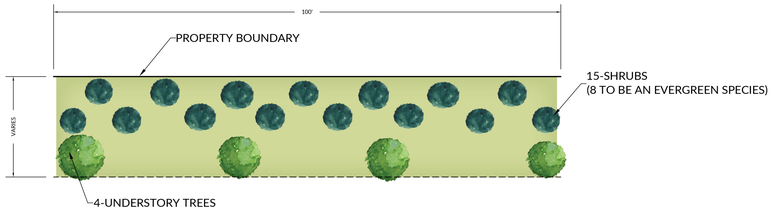
EXHIBIT A - AUGUST 18, 2025

CONCEPT PLAN

SCALE: 1" = 100'
0' 50' 100'

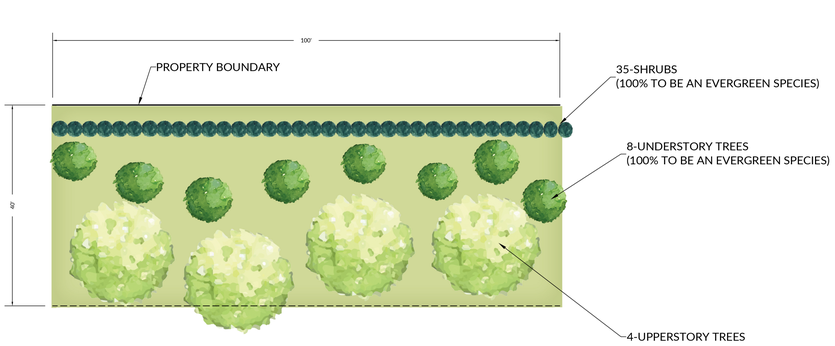
WithersRavenel
Our People. Your Success.

Project No. 24-1262-A | August 18, 2025



TYPE 'A' BUFFER - TYPICAL 100' SECTION
MINIMUM WIDTH 10'

PLANTING REQUIREMENTS:
(ALL PLANTINGS WILL MEET THE MINIMUM SIZE REQUIREMENTS OUTLINES IN THE UDO WITH FINAL SPECIFICATIONS TO BE PROVIDED AT SITE PLAN)
4 UNDERSTORY TREE PER 100 LF
15 SHRUBS PER 100 LF (50% MINIMUM PERCENTAGE OF EVERGREEN SHRUBS)



TYPE 'D' BUFFER - TYPICAL 100' SECTION
MINIMUM WIDTH 40'

PLANTING REQUIREMENTS:
(ALL PLANTINGS WILL MEET THE MINIMUM SIZE REQUIREMENTS OUTLINES IN THE UDO WITH FINAL SPECIFICATIONS TO BE PROVIDED AT SITE PLAN)
4 UPPERSTORY TREE PER 100 LF (25' O.C.)
8 UNDERSTORY TREE PER 100 LF (15' O.C., 100% MINIMUM PERCENTAGE OF EVERGREEN SPECIES)
35 SHRUBS PER 100 LF (3' O.C, 100% MINIMUM PERCENTAGE OF EVERGREEN SPECIES)

CLAYTON - HEAVNER PROPERTY - REZONING # 2025-23-CZM

EXHIBIT A - AUGUST 18, 2025

BUFFER DETAILS

WithersRavenel
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Project No. 24-1262-A | August 18, 2025

Docusign Envelope ID: 2368A39B-C17C-471D-AA3F-F6DD03AE8267

Conditions of Approval
2025-23-CZM Heavner Property

1. Following Town Council approval, an electronic copy of the Concept Plan, **Exhibit A (dated August 18, 2025)**, including the Conditions of Approval shall be submitted to the Planning Department.

2. The Project shall meet all applicable adopted Town of Clayton Unified Development Ordinance (UDO) requirements, Town of Clayton Manual of Specifications, Standards, and Design (MSSD), and the North Carolina Fire Code and NFPA Fire standards, as amended, except where specifically modified by the approved Concept Plan and Conditions of Approval.

3. The Project shall be constructed in substantial conformance with the Concept Plan as approved by the Clayton Town Council and the Town's Engineering Department. Any proposed modifications to the Concept Plan shall be reviewed in accordance with the standards outlined in the UDO.

4. The associated Concept Plan and Conditions of Approval for this project shall allow for any changes in Town Development regulations, either through text or the official Zoning Map, that are considered as upzoning, downzoning, or establishment of any nonconformity.

5. The Project and associated development applications shall adhere to Town adopted policies and ordinances that are in effect at the time of their submittal and acceptance for review.

6. To the extent of any conflict between the Concept Plan and these Conditions of Approval, these Conditions shall control.

7. In the event the development contemplated in a Conditional Rezoning application is not substantially commenced within three (3) years from the date of the approval, the Town Council may initiate a rezoning application to return the land to its prior or to some other appropriate zoning district designation.

8. The property owner shall submit, and the Town Council shall approve a request for a voluntary annexation petition for all parcels of land subject to 2025-23-CZM prior to approving any Construction Drawing for any phase in 2025-23-CZM.

9. The Subdivision of the project property shall occur via the Alternative Sequence process included in the Construction Drawing process section of the UDO and the recording of the subdivision shall be allowed to occur prior to installation of UDO required improvements or improvements required with in other conditions in this Ordinance.

10. A Temporary Certificate of Occupancy may be issued, at the discretion of the Inspections Director, prior to the completion of As-Built Plans being finalized with substantial compliance with approved Site Plan and Performance Guarantee for any outstanding Site Plan requirements or infrastructure improvements.

11. A Performance Guarantee shall be provided for public infrastructure improvements, (including but not limited to water and sewer system extensions, off site roadway improvements, erosion control measures, and storm water control systems). Performance Guarantee for offsite NCDOT

Docusign Envelope ID: 2368A39B-C17C-471D-AA3F-F6DD03AE8267

improvements, including traffic control signals, shall only be provided to NCDOT, with a copy of the Performance Guarantee provided to the Town of Clayton.

12. Principal uses shall comply with the uses listed in the CRM or CZC columns of the Listing of Common Principal Uses in UDO Table 4.2.5, as amended, with the exception of the following principal uses which shall be prohibited:

Agricultural Use Classification
- Animal Husbandry
- Equestrian Facility
- Farm Equipment Sales and Service
- Horticulture

Commercial Use Classification
- Animal Boarding Indoor & Outdoor
- Bed & Breakfast
- Bulky Item Sales*, as defined by the Town of Clayton UDO, shall not be permitted within the development, except as a secondary use within a Unified Development.*
- Flea Market
- Pawn Shop
- Tobacco, CBD, and Vapor Shop
- Parking Vehicle Towing or Storage

Industrial Use Classification
- Contractor Services Office/ Yard
- Electrical, HVAC, or Plumbing Fabrication
- Freight Terminal
- Major Utility
- Warehouse, Distribution, or Storage

Institutional Use Classification
- Arboretum or Formal Garden
- Athletic Field or Court
- Auditorium, Coliseum, Convention Center
- Bus Station
- College or University
- Community Center
- Community Garden
- Cemetery or Mausoleum
- Fire/ EMS/ Police Station
- Fraternal Club or Lodge
- Golf Course (public or private)
- Governmental Training Facility
- Outdoor Recreation, Public

Docusign Envelope ID: 2368A39B-C17C-471D-AA3F-F6DD03AE8267

- Park and Ride Facility
- Park or Playground (public or private)
- Rail Related
- Religious Institution
- Residential Treatment Facility
- School, Elementary or Middle
- School, High
- School, Vocational

Residential Use Classification

- Triplex or Quadplex Dwelling

13. Secondary uses shall comply with the uses listed in the CRM or CZC columns of the Listing of Common Secondary Uses in UDO Table 4.5.4, as amended, with the exception of the following Secondary uses which shall be prohibited:

    - Amateur Ham Radio
    - Family Health Care Structure
    - Helistop

14. Animal Boarding, Indoor (4.3.7), Grooming, Animal (4.3.61), and Veterinary Services, Small Animal (4.3.144) shall not have any exterior boarding. Soundproofing shall be provided per accepted industry standards.

Docusign Envelope ID: 2368A39B-C17C-471D-AA3F-F6DD03AE8267

15. Corridor Commercial District (CRM) Dimensional Standards (UDO 3.2.1.C), as modified per UDO Section 3.3.2.B

Dimensional Standards for Overall Site and Nonresidential areas:

Max. Residential Density - units [a]	12.0 d/u per acre - 475 unit maximum	Min. Street Setback (ft)	5
Min. Lot Area (sf)	8,000	Min. Side Setback (ft)	5
Min. Lot Width (ft)	0	Min. Internal Side Setback (ft)	0
Max. Lot Coverage (% of lot area) [b]	75%	Min. Rear Setback (ft)	0
Min. Open Space Set-Aside (% of lot area) [c]	5	Min. Spacing Between Buildings (ft)[d]	Per zoning conditions or NC Building Code, whichever is greater
Max. Building Height (ft)	60	Min. Perimeter Setback for Multi-Building and Unified Developments (ft)	5 ft
Max. Building Height (ft) for Hotels and Office Buildings	75		

a. Max. Residential Density
   i. The maximum residential density shall be applied across the entire project area and not on a per lot basis. There shall be no more than 475 dwelling units. An increase to the number of dwelling units shall require a major modification to the Conditional Zoning as outlined in the UDO.
b. Max. Lot Coverage
   i. The maximum lot coverage shall be applied across the entire project area and not on a per lot basis.
c. Min. Open Space Set-Aside.
   i. The minimum open space set aside shall apply to the entire project area and not on a per lot basis, except for multifamily which shall meet its own Open Space and not be used towards the nonresidential Open Space. SCM #1 as shown on the Concept Plan may be used toward the nonresidential Open Space, subject to the requirements of Section 6.7.1.E.1.b.ii of the Unified Development Ordinance.
d. Building to building setbacks shall be in accordance with dimensional requirements outlined in this Conditional Zoning, or in accordance with NC Building Code requirements, whichever is greater.

Dimensional Standards for Multifamily Residential areas:

Min. Lot Area (sf)	20,000
Max. Building Height (ft)	60
Min. Street Setback (ft)	5
Min. Side Setback (ft)	5
Min. Rear Setback (ft)	5
Min. Spacing Between Buildings (ft)	Per zoning conditions or NC Building Code, whichever is greater
Min. Perimeter Setback	5 ft

16. Outdoor Display/ Sales Outdoor sales shall be allowed in locations as identified and approved on the site plan. This shall include temporary outdoor sales. Location of outdoor display/sales shall not encroach into vehicular use areas, minimum setback yards, or required buffers.

17. The duration and location of common temporary uses is modified as follows:
    a. Outdoor Seasonal Sales: Outdoor Seasonal Sales allowed at any time during the calendar year when an area is identified and approved for outdoor seasonal sales on a Site Plan for a maximum of 60 days per occurrence, a maximum of five occurrences per year, with a total maximum of 270 days per year.
    b. Portable Storage Containers: Portable Storage Containers may be permitted at time of Site Plan when an area is identified for Portable Storage containers on a Site Plan. No portable storage containers can be used in perpetuity and will be subject to time limited duration, subject to approval by the Planning Director. Portable storage containers must be located at the rear of a building and shall be screened from the line of sight from public and private roads.
    c. Other Special Events: Each retailer and/or tenant, individual businesses located on an outparcel, and any other business located within the unified shopping center may have a *Grand Opening Sale* including banners, signs and other allowable signs per the UDO are allowed up to 45 consecutive days per calendar year.

18. *Perimeter Buffers* shall be in compliance with perimeter buffers shown on the attached Concept Plan and as described below. The streetscape buffer shall be in accordance with UDO Section 6.16.16 *Streetscape Buffers*.

    a. East, adjacent to existing residential (PIDs, 05G02002I, 05G02002L, 05G02198O, 05G02002G, 05G02002K, 05G02002H, and 05G02193Y): 40' Type D
        A retaining wall may be introduced into the buffer to preserve existing vegetation, with final design to be determined at site plan.
    b. South, adjacent to existing residential (PID 05G02198W): 40' minimum undisturbed buffer.
    c. East, adjacent to vacant site (PID 05E99012J): 20' Type A
        i. This buffer may be eliminated if the vacant site is rezoned to a commercial district or developed as part of Unified Development with the Heavner Property.
    d. West, south of Scholar Dr (PID 05G02001A): 10' Type A
    e. West, north of Scholar Dr (PIDs 05G02001M, 05G02001L): 5' Type A
        i. This buffer may be eliminated if the parcels indicated are developed as part of a Unified Development with the Heavner Property.

19. Grading may occur within the required buffers and replanted to the standards in the UDO by buffer type. Where grading does not occur within the buffer, existing vegetation may be counted towards required plantings and supplemented to meet the requirements of the UDO. Existing vegetation to count towards required plantings shall be identified on the Site Plan and is subject to a report prepared by a certified arborist noting the health and size of the existing vegetation to be used for credit.

20. The perimeter buffers shown on the Concept Plan for the overall development shall meet all planting quantity and size requirements for the Type of buffer shown with the following exception:
    - The 40' Type D buffer where adjacent to existing residential shall increase the percentage of understory trees and shrubs to 100% evergreen.
    - No buffer is required where it is prohibited on utility easements by the easement owner.
    - Additional buffers, walls, and/or fences for individual uses internal to the site shall not be required.

21. Mass Grading restrictions or limitations shall not apply to this development. The buffers shall be in compliance with the perimeter buffers shown on the attached Concept Plan and not doubled or increased from the width and Type shown on the concept plan as a result of mass grading.

22. Denuded areas adjacent to riparian buffers and/or wetlands located on the subject property shall have double silt fencing installed during construction.

23. Where off-street parking lots of 100 or more spaces are shown on site plans, they shall include at least one landscaping strip for every six rows of parking spaces overall with a maximum spacing of 10 rows between landscaping strips, with location to be determined at site plan.

24. 90 degree parking spaces, with the exception of ADA compliant spaces, shall be a minimum of 9 feet in width and 18 feet in depth.
    - Where the parking space includes a wheel stop, the length of the space shall be increased by 1.5 feet.
    - Where a parking space abuts a wall or fence, the minimum distance between the back of curb and the wall or fence shall be at least two (2) feet for the entire length of the wall or fence.

25. Multi-family buildings shall follow the design standards in UDO Section 6.2.4 *Multi-Family Design Standards*: Building Facades with the following modifications:

    a. A covered balcony shall also be acceptable as an allowed architectural element as one of the three required features outlined in the UDO.

26. Multi-Family buildings shall follow the design standards in UDO Section 6.2.4 Multi Family Design Standards: Building Façade Variation with the following modifications:

    a. One of more of the principal buildings has a footprint that differs in square footage by 20% or more than the average principal buildings footprints of the other principal buildings.

b. The use of Fiber Cement material in its various styles may be used to meet the primary exterior requirements as a different material. Examples include lap siding, vs. panel siding, vs shingles. These materials shall be counted as different materials.
c. A primary material shall be understood to mean the highest percentage of material on the wall.
d. One or more of the principal buildings is configured so that 25% of the windows incorporate a canopy, awning, overhang, or other covering.

27. Non-residential buildings shall follow the design standards in UDO Section 6.2.5 *Non-Residential Design Standards* with the following modifications:

a. All commercial buildings shall have a minimum of one distinguished Primary Building Wall.
b. Multi-tenant buildings shall not be required to have a primary entrance for each tenant.
c. Customer Entrances shall be allowed to have a canopy, awning, portico, archway, arcade, or other covering that extends outwards from the building wall by at least 4 feet.
d. Non-Residential Building Articulation shall allow a recess or projections of 1.5 feet for multi-tenant buildings and 2 feet for single-use buildings. Entry canopies or projections shall be included in the calculation of modulation.

28. Prefabricated metals and corrugated sheet metal may be used as an allowed building material with an additional articulation element.

29. The project shall be allowed to have two Ground Signs for the project on the US 70 frontage. There shall not be a Ground Sign on the Financial Drive side of the project.

30. Ground signs for the out parcels shall be prohibited.

31. Single-tenant Commercial buildings and spaces exceeding 24,000 square feet may have Wall Signs that shall not exceed a total allowance of 500 square feet, at a rate of 1.5 sf per linear foot of building façade. When applied to a building, there shall be a maximum of four signs per façade.

32. The project shall complete all off-site improvements in accordance with the Traffic Impact Assessment (TIA) reviewed by the Town of Clayton and the North Carolina Department of Transportation (NCDOT), subject to the issuance of applicable permits by NCDOT and the Town of Clayton, as appropriate. The following improvements shall be completed prior to the issuance of the first Certificate of Occupancy:

- <u>Clayton Blvd (US 70)</u>
  - Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at each site access
- <u>Clayton Blvd (US 70) at Site Access A</u>
  - Construct a Right in/ Right out driveway with one ingress lane and one egress lane
  - Construct 150' internal protected stem
- <u>Clayton Blvd (US 70) at Gateway Drive/Site Access B:</u>
  - Reconfigure intersection to a thru-cut configuration, permitting all intersection movements except of the northbound and southbound through movements.
  - Install traffic signal
  - Install an additional 300' westbound left-turn lane on Clayton Blvd

Docusign Envelope ID: 2368A39B-C17C-471D-AA3F-F6DD03AE8267

- Extend storage of existing westbound left-turn lane to 300' on Clayton Blvd
- Construct two ingress and four egress lanes on Site Access B
- Construct a 200' Internal Protected Stem on Site Access B
- Provide separate 50' left- and right-turn lanes on the southbound approach of Gateway Drive

- Clayton Blvd (US 70) at Medical Park Place/Site Access C
  - Extend storage of existing Clayton Blvd westbound left-turn lane to 450'
  - Construct Site Access C as a left-in/right-in/right-out access with one ingress lane and two egress lanes
  - Construct 200' Internal Protected Stem
  - Install a traffic signal for the US 70 Eastbound/Site Access C intersection
  - Build Site Access C driveway on Clayton Blvd with the following lanes:
    - One inbound lane
    - Two outbound right turn lanes
    - Signalize for left turns into the Site Access C

33. A two lane roadway, with naming to be determined at time of site plan review, shall be extended east from the Financial Drive and Town Center Boulevard intersection to the western property boundary per Clayton standard 2C in the Comprehensive Transportation Plan Cross Section Standards.

34. Development shall restripe the southbound approach of Financial Drive to provide an exclusive left-turn lane at Town Center Boulevard Extension with a minimum of 50' of full width storage and appropriate tapers. A future traffic analysis shall be performed prior to approval of the site plan to confirm storage length required for the southbound left-turn lane at this intersection.

35. A connection to the undeveloped parcel at the northwest corner of site (PIN 165909-06-4682) shall be provided from Site Access Driveway A as outlined below:
    - If the adjacent site is developed prior to the development of the Heavner Property and a connection with a cross access easement is provided within 10 feet of the property line the Developer shall make the connection to the existing driveway stub; or
    - If adjacent site remains undeveloped at the time of development of the Heavner Property, the Developer shall provide a driveway stub to the adjacent property and easement allowing the future connection of the cross access driveway.

36. The trip generation used in the TIA is based on the land use assumptions and associated trip generation table included with the approved TIA. Modifications to the land use mix, including changes in the number of dwelling units or gross floor area, may be permitted as a Minor Modification to the concept plan, provided that documentation is submitted by a licensed Traffic Engineer demonstrating that the overall trip generation does not exceed the total approved in the TIA. The TIA approval shall expire in accordance with the Concept Plan, Site Plan, subdivision plat, or other approval it is associated with per the UDO.

Docusign Envelope ID: 2368A39B-C17C-471D-AA3F-F6DD03AE8267

PROPERTY OWNER AFFIDAVIT

I/We, the undersigned, do hereby certify that I have reviewed the recommended conditions of approval and am/are in agreement with the conditions as they are outlined within this letter.

Thomas Lowell	Signed by: Thomas Lowell 311943B8413724A2...	8/8/2025
Print Name	*Signature of Property Owner*	*Date*

Signature affirms compliance with Unified Development Ordinance Section 2.3.6.D.1.a and North Carolina General Statutes § 160D-703 (b).

Justification of Conditional Zoning UDO Modifications #2025-23-CZM

Summary

This document provides project information and desired outcomes that will allow the Heavner Property to develop as a site with various uses under the Conditional Zoning Commercial District. The Heavner Property is envisioned to be a mix of uses housed in a range of building types. The nonresidential area encompasses the northern side of the site, and its buildings may include "big box" buildings, multi-tenant buildings, stand-alone buildings, and outparcels. The residential area is anticipated to be multistory multifamily buildings located at the south end of the site.

Modifications Requested

We respectfully submit the following justification in support of the requested modifications to specific standards in the Town of Clayton Unified Development Ordinance (UDO), particularly related to buffers, setbacks, open space, impervious surface area, non-residential and multi-family building design, and mass grading.

This proposed project includes a large-format commercial center ("big box" retail) with supporting multi-tenant retail spaces, several outparcel lots, restaurant pads, and multifamily residential units. The goal is to deliver a walkable, integrated mixed-use environment that accommodates contemporary commercial and residential needs while maintaining a cohesive development character across the entire site.

1. Open Space Calculation and Distribution

Current UDO standards require that each lot provide 5% of its area as open space. While this requirement promotes open space generally, in a mixed-use commercial development consisting of multiple subdivided parcels (e.g., for restaurants, inline tenants, or anchor users), this fragmented approach leads to a collection of small, non-functional open space areas that fail to create meaningful or usable green space.

Instead, we propose that open space be evaluated at the master development level, rather than on a per-lot basis. This approach allows for the consolidation of open space into larger, more usable, and better-designed common areas such as amenity areas, pocket parks, and pedestrian plazas that can serve both the commercial and residential components of the site. This request aligns with the intent of UDO Section 1.7, which encourages development flexibility and innovation in site design where traditional zoning standards may otherwise inhibit quality urban form.

The developer will be responsible for providing data and tracking mechanisms to staff to ensure the total is met throughout the development.

2. Setbacks and Lot Dimensional Standards

The nature of modern shopping centers and mixed-use developments frequently necessitates design flexibility that does not conform to traditional lot and setback standards. This site will include multiple nonresidential lots that will not meet certain UDO requirements for frontage or setbacks. This is consistent with many existing shopping centers and mixed-use developments throughout the region,

which often utilize private roads or shared access drives to structure internal circulation, rather than public street networks.

- Within the project area, only select parcels will have public road frontage—specifically along Clayton Boulevard—while the majority of parcels will be served by shared access easements along internal drives.
- Interior lots may not meet typical UDO dimensional standards, especially where individual tenants require ownership of the building and/or parcel while continuing to share access, utilities, parking, and stormwater systems with surrounding uses.
- Interior lot line setbacks would create artificial separation of buildings and possibly uses that inhibit the natural development of the property.

As such, we are requesting flexibility in both minimum lot dimensions and setbacks for internal parcels and parcel lines. This flexibility is essential to accommodate modern commercial operating structures and promote a cohesive, interconnected site layout that supports pedestrian access and shared amenities.

This request aligns with UDO Section 1.7(C)(3), which supports modifications that foster "more efficient use of land" and innovative approaches to urban form.

3. Impervious Surface Area

As with open space, we propose calculating impervious surface limits at the master development level. This approach enables flexibility in clustering development and concentrating impervious areas in appropriate locations, such as large commercial parking fields, while preserving open space and green buffers around multifamily or low-impact zones. This results in a more environmentally responsible and visually coherent site plan than would be achieved under strict per-lot application.

4. Non-Residential and Multifamily Building Design and Architecture

The UDO contains prescriptive architectural and façade design standards for non-residential and multifamily buildings. While these standards serve to promote design consistency and quality, they are often not well-aligned with the architectural needs of national retailers and big box users. These tenants typically utilize prototype designs developed for operational efficiency and brand consistency, and strict compliance with UDO design elements (such as façade articulation, roofline modulation, or fenestration minimums) may not be feasible without compromising tenant viability.

We are requesting flexibility in the application of architectural standards to accommodate national tenant prototypes, while still ensuring that the overall development maintains a cohesive and high-quality visual appearance. Architectural variation, enhanced landscaping, and shared pedestrian amenities will be used to unify the site and elevate its aesthetic character, even where individual buildings deviate from certain architectural prescriptive requirements.

This approach is fully aligned with the flexibility envisioned in UDO Section 1.7, which encourages innovative site design and acknowledges that some projects—particularly mixed-use centers of this scale—may not be compatible with rigid one-size-fits-all architectural prescriptions.

5. Mass Grading and Buffer Requirements

We respectfully request relief from this requirement to increase the perimeter buffer width and planting quantities due to the functional necessity of grading for this site, that will likely be considered mass grading under the UDO, which includes large-format commercial buildings and multifamily residential units. Unlike low-density residential subdivisions, commercial and multifamily developments require mass grading to create level, buildable pads that support larger buildings, shared infrastructure, and safe, ADA-compliant access routes.

In the context of this proposed development, mass grading is not an optional or avoidable design choice—it is a fundamental engineering requirement driven by:

- The size and structural needs of large retail and multi-tenant commercial buildings.
- The need for consistent, coordinated grading across internal roadways, stormwater infrastructure, utility systems, and shared access.
- Site balancing considerations that reduce the duration of material hauling, costs, and off-site impacts.

Requiring the increase of perimeter buffers and plantings due to necessary grading would create an undue burden on the developable area, reduce site efficiency, and restrict flexibility in site design, without providing a proportional benefit to screening, environmental quality, or community character. Standard buffer requirements—as already provided in the UDO—are sufficient to achieve the desired visual and functional separation between uses.

This request aligns directly with UDO Section 1.7, which allows for flexibility where strict application of the standards would "inhibit creative site design, preclude efficient land use, or conflict with the goals of high-quality development." In this case, maintaining standard buffer widths and planting quantities while allowing mass grading strikes a reasonable and balanced approach—one that supports responsible site planning, meets tenant and code requirements, and ensures a high-quality built environment.

6. Performance Guarantees and timing of subdivisions

The project will need to run subdivision plans and site plan concurrently which will allow the developer and tenants to close on the purchase of the property at the same time. The subdivision of the parcels will allow tenants to own their parcels, but they will continue to be subject to the requirements in the Zoning Conditions. The developer will ensure coordination of off-site improvements and internal improvements, and the initial subdivision will be largely for the creation of multiple owners of the project. Due to the nature of nonresidential and multifamily development, a request to vary from the UDOs performance guarantee and platting process has been requested. This will ensure that life safety is in place when needed, and buildings can start construction while other improvements are underway. Additionally, the developer will post a performance guarantee with NCDOT as is required by the agency, and not with the Town of Clayton. However, proof or posting the guarantee can be provided to the Town of Clayton. It would be financially unfeasible to provide a performance guarantee for improvements on Clayton Blvd to both NCDOT and the Town of Clayton.

7. Signs

There are two slight modifications being requested to the UDO, one would to place two monument signs on Clayton Blvd to capture the key tenants on the site. Although permitted, there would be no sign at the entrance on Financial Drive. The second modification would be to allow Single-Tenant buildings over 24,000 square feet to have wall signs that exceed a total of 200 square feet and follow the ratio in the UDO of 1.5 square feet per linear foot of building façade.

8. Permitted Uses

The developer acknowledges that some uses permitted by right in CZC are not desirable in this location, therefore a list of uses that will not be permitted has been added to the Zoning Conditions.

Conclusion

The proposed modifications are not intended to circumvent the intent of the UDO, but rather to allow for a more integrated, cohesive, and functional development that aligns with the Town of Clayton's long-range vision. As noted in UDO Section 1.7, the Town recognizes that flexibility in the application of development standards is necessary to achieve superior design outcomes and better land use integration. The adjustments requested herein are consistent with that objective and reflect both the unique character of the proposed development and the practical realities of modern mixed-use site planning.

Revised Traffic Impact Analysis

Heavner Property

Clayton, NC

Prepared for:

CASTO Southeast Realty Services, LLC

Kimley»Horn

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Revised Traffic Impact Analysis for

Heavner Property
Clayton, North Carolina

Prepared for:

CASTO Southeast Realty Services, LLC
Cary, NC

Prepared by:

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June 2025

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This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Executive Summary

Kimley-Horn has prepared a Traffic Impact Analysis (TIA) for the Heavner Property mixed-use project proposed to be located south of US 70 at Gateway Drive in Clayton, North Carolina. The development is envisioned to include approximately 330 low-rise multifamily dwelling units and 500,000 square-feet (SF) of shopping center space, and (as part of a separate project) the existing Johnston County ABC Store near the intersection of Gateway Drive is proposed to be relocated to the southeast corner of the intersection of US 70 at Financial Drive. The site is proposed to be accessed via three driveways along US 70 (one site driveway aligning with Gateway Drive, one left-in/right-in/right-out driveway aligning with Medical Park Place, and one right-in/right-out only driveway west of Gateway Drive), as well as via cross-access to Town Centre Boulevard. The anticipated full build-out year for the project is 2030.

[Note: depending on final site design, Site Access C may be shifted east of Medical Park Place by approximately 150', though as the access is still proposed as a directional crossover driveway there would not be any conflicting left-turn movements associated with that shift.]

Based on coordination with the North Carolina Department of Transportation (NCDOT), Site Access B (aligning with Gateway Drive) was studied in three separate access configurations:

- Access Scenario #1: Full-Movement Access
- Access Scenario #2: Thru-Cut Access
- Access Scenario #3: Reduced Conflict Intersection ("RCI", "Superstreet)

This report presents trip generation, distribution, traffic analyses, and recommendations for transportation improvements required to meet anticipated traffic demands in conjunction with the development. The traffic conditions studied include the existing (2025) and projected (2030) background and build-out traffic conditions for the AM and PM peak hours.

Study Intersections

The study area for this development included the following intersections:

- US 70 at Town Centre Boulevard
- US 70 at Financial Drive
- US 70 at Gateway Drive/Site Access B
- US 70 at Medical Park Place/Site Access C (Left-in/Right-in/Right-out)
- US 70 at Shotwell Road
- US 70 at Site Access A (Right-In/Right-Out)
- US 70 at U-Turn East of Medical Park Place
  - Note: this U-turn was only included in Access Scenario #3 as neither Scenario #1 nor Scenario #2 are expected to add U-turns at that location, and then only in the build scenario since existing peak hour U-turn volumes were less than 2 vehicles in each peak

Existing Traffic Data

Weekday AM (7:00 to 9:00 AM) and PM (4:00 to 6:00 PM) peak hour turning movement counts were collected in January 2025 while area public schools were in session.

Future No-Build Traffic Volumes

To calculate projected (2030) background traffic volumes, a 2% annual growth rate was applied to the existing traffic up to the study year 2030, though no growth rate was applied to volumes into/out of Town Centre Boulevard or Financial Drive. While some small developments are within the proposed study area, the annual growth rate was determined to be sufficient to account for the traffic from those projects as well as the ambient traffic growth.

Trip Generation

Trip generation calculations were performed using data from the 11th edition of the ITE *Trip Generation Manual*. As shown in Table ES-1, the proposed development is anticipated to generate approximately 18,364 net new external trips on a typical weekday, with 550 net new trips during the AM peak hour and 1,505 net new trips during the PM peak hour. Detailed trip generation calculations are included in the Appendix.

Table ES-1
ITE Traffic Generation (Vehicles)

Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
				Total	In	Out	In	Out
220	Multifam. Housing, Low-Rise	330	d.u.	2,192	30	95	102	60
820	Shopping Center (>150k)	500,000	s.f.	18,920	266	163	863	935
Subtotal				21,112	296	258	965	995
Internal Capture				*998*	*2*	*2*	*63*	*63*
Pass-by Capture				*1,750*	*0*	*0*	*160*	*169*
Total Net New External Trips				**18,364**	**294**	**256**	**742**	**763**

Capacity Analyses

Capacity analyses were performed using Synchro Version 12 software. Table ES-2 summarizes the operation of the study intersections for the AM and PM peak hour traffic conditions. Note: where results are generally consistent between access scenarios (e.g., between Scenarios 1 & 2 at Town Centre Boulevard, in all scenarios at Shotwell Road, etc.), results from Scenario #2 were reported.

Table ES-2
Level-of-Service Summary

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
US 70 at Town Centre Boulevard (Signalized)		
Existing (2025) Traffic	C (21.2)	C (26.3)
Background (2030) Traffic	B (19.7)	C (26.4)
Build-out (2030) Traffic – Access Scen. 1 & 2	B (16.0)	C (28.3)
Build-out (2030) Traffic – Access Scen. 3	C (21.5)	C (29.7)

Table ES-2 (cont.) Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
US 70 at Financial Drive (Unsignalized)		
Existing (2025) Traffic	NB – D (33.3) SB – C (19.3)	NB – E (46.8) SB – B (13.2)
Background (2030) Traffic	NB – E (42.9) SB – C (21.8)	NB – F (68.7) SB – B (14.0)
Build-out (2030) Traffic	NB – F (53.2) SB – C (22.9)	NB – F (147.8) SB – C (15.2)
US 70 at Gateway Drive/Site Access B		
Existing (2025) Traffic - Unsignalized	NB – B (13.5) SB – D (28.1)	NB – C (20.7) SB – C (15.9)
Background (2030) Traffic – Unsignalized	NB – B (14.4) SB – E (36.3)	NB – C (23.7) SB – C (17.7)
Build-out (2030) Traffic – Signalized, Access Scen. #1	C (32.3)	D (51.4)
Build-out (2030) Traffic – Signalized, Access Scen. #2	B (18.8)	C (27.6)
Build-out (2030) Traffic – Access Scenario #3: Unsig. SB App., Sig. NB App.	Gateway Dr.: SB – D (27.7) Access B: B (13.2)	Gateway Dr.: SB – C (19.5) Access B: B (12.4)
US 70 at Medical Park Place/Site Access C		
Existing (2025) Traffic – Unsignalized	SB – C (23.2)	SB – B (14.5)
Background (2030) Traffic – Unsignalized	SB – D (26.9)	SB – C (15.6)
Build-out (2030) Traffic – Access Scenario #1 & 2: Unsig. SB App., Sig. NB App.	Med. Park Pl.: SB – D (26.6) Access C: B (11.9)	Med. Park Pl.: SB – C (18.6) Access C: C (28.2)
Build-out (2030) Traffic – Access Scenario #3: Unsig. SB App., Sig. NB App.	Med. Park Pl.: SB – D (24.2) Access C: A (6.5)	Med. Park Pl.: SB – C (19.3) Access C: C (30.3)
US 70 at Shotwell Road (Signalized)		
Existing (2025) Traffic	D (45.1)	D (48.7)
Background (2030) Traffic with Improvements by Others	D (38.9)	D (49.8)
Build-out (2030) Traffic with Improvements by Others	D (39.5)	D (54.3)
US 70 at Proposed Right-in/Right-out Site Access A (Unsignalized)		
Build-out (2030) Traffic	NB – C (15.3)	NB – F (81.2)
US 70 at U-Turn East of Medical Park Place (Unsignalized)*		
Build-out (2030) Traffic – Access Scenario 3	EBU – F (78.0)	EBU – F (52.5)

**Delay at U-turn reported from SimTraffic as Synchro does not report delays for yield-controlled movement*

Improvements by Others

The following improvements are committed as part of North Carolina Department of Transportation (NCDOT) project HL-0127 and were included in the future traffic conditions:

US 70 at Shotwell Road:

- Construct a second eastbound left-turn lane on US 70 to provide dual left-turn lanes on that approach, and provide a northbound receiving lane on Shotwell Road
- Construct a second northbound left-turn lane on Shotwell Road to provide dual left-turn lanes on that approach
- Construct a southbound right-turn lane on Shotwell Road
- Modify the existing traffic signal to accommodate the identified laneage

Recommended Improvements by Development – Access Scenario #1

The following improvements are recommended to be performed as part of this development in Access Scenario #1:

US 70:

- Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at each site access

US 70 at Site Access A:

- Construct Site Access A as a right-in/right-out access with one ingress lane and one egress lane

US 70 at Gateway Drive/Site Access B:

- Reconfigure this intersection to a full-movement intersection
- Construct Site Access B as a full-movement access with two ingress lanes and four egress lanes
- Provide dual northbound left-turn lanes, a through lane, and an exclusive right-turn lane on Site Access B
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 350 feet of storage on that approach
- Install a traffic signal

US 70 at Medical Park Place/Site Access C:

- Construct Site Access C as a left-in/right-in/right-out access with one ingress lane and two egress lanes
- Extend the storage of the existing westbound left-turn lane on US 70 to provide 350 feet of storage
- Install a traffic signal for the US 70 Eastbound/Site Access C intersection

Figure ES-1 shows the committed and recommended roadway laneage at project build-out in Access Scenario #1.

Recommended Improvements by Development – Access Scenario #2

Recommended improvements were identified for Access Scenario #2 and are consistent with those for Access Scenario #1 unless otherwise noted below:

US 70 at Gateway Drive/Site Access B:

- Reconfigure this intersection to a thru-cut configuration, permitting all intersection movements except for the northbound and southbound through movements
- Construct Site Access B with two ingress lanes and four egress lanes
- Provide dual northbound left-turn lanes and dual northbound right-turn lanes on Site Access B
- Provide separate left- and right-turn lanes on the southbound approach of Gateway Drive
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 300 feet of storage on that approach
- Install a traffic signal

Figure ES-2 shows the committed and recommended roadway laneage at project build-out in Access Scenario #2.

Recommended Improvements by Development – Access Scenario #3

Recommended improvements were identified for Access Scenario #3 and are consistent with those for Access Scenario #1 unless otherwise noted below:

US 70 at Gateway Drive/Site Access B:

- Construct Site Access B with two ingress lanes and two egress lanes
- Provide dual northbound right-turn lanes on Site Access B
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 300 feet of storage on that approach
- Install a traffic signal for the US 70 Eastbound/Site Access B intersection

US 70 Westbound at U-Turn East of Medical Park Place:

- Extend the storage of the existing eastbound U-turn lane to provide 200 feet of storage and appropriate tapers

Figure ES-3 shows the committed and recommended roadway laneage at project build-out in Access Scenario #3.

Conclusions

Analyses indicate that with the recommended improvements in place, all the signalized study intersections are expected to operate acceptably at project build-out. The unsignalized intersection of US 70 at Financial Drive is expected to operate with long delays in the study year 2030 with or without the proposed development in place, and this project is only expected to add through trips at this intersection. While the unsignalized intersection of US 70 at Site Access A is expected to

operate with long delays at project build-out in the PM peak hour, it is anticipated that nearby traffic signals would provide gaps in traffic flow not fully recognized in Synchro. The U-turn on US 70 east of Medical Park Place is expected to operate with long delays in both peak hours in Access Scenario #3 at project build-out; however, these delays are only expected in Access Scenario #3 since existing peak hour U-turn volumes are less than 2 vehicles and no additional U-turns would be expected in Access Scenario #1 or #2.

It was noted that acceptable intersection operations could be achieved in any of the access scenarios studied at the Gateway Drive/Site Access B intersection. However, as Access Scenario #3 (RCI) would likely result in U-turns at the directional crossover intersection of Medical Park Place and results in longer delays and queues at that intersection (and at the existing U-turn east of Medical Park Place), and as overall intersection delays are longest in Access Scenario #1, it is recommended that Access Scenario #2 is constructed at this intersection.

FIGURE ES-1

COMMITTED AND RECOMMENDED LANEAGE – ACCESS SCEN. #1 (FULL MVMT.)

HEAVNER PROPERTY
CLAYTON, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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FIGURE ES-2

COMMITTED AND RECOMMENDED LANEAGE – ACCESS SCEN. #2 (THRU-CUT)

HEAVNER PROPERTY
CLAYTON, NC
TRAFFIC IMPACT ANALYSIS

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FIGURE ES-3

COMMITTED AND RECOMMENDED LANEAGE – ACCESS SCEN. #3 (RCI)

HEAVNER PROPERTY
CLAYTON, NC
TRAFFIC IMPACT ANALYSIS

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1.0 Introduction

Kimley-Horn has prepared a Traffic Impact Analysis (TIA) for the Heavner Property mixed-use project proposed to be located south of US 70 at Gateway Drive in Clayton, North Carolina. The development is envisioned to include approximately 330 low-rise multifamily dwelling units and 500,000 square-feet (SF) of shopping center space, and (as part of a separate project) the existing Johnston County ABC Store near the intersection of Gateway Drive is proposed to be relocated to the southeast corner of the intersection of US 70 at Financial Drive. The site is proposed to be accessed via three driveways along US 70 (one site driveway aligning with Gateway Drive, one left-in/right-in/right-out driveway aligning with Medical Park Place, and one right-in/right-out only driveway west of Gateway Drive), as well as via cross-access to Town Centre Boulevard. The anticipated full build-out year for the project is 2030.

[Note: depending on final site design, Site Access C may be shifted east of Medical Park Place by approximately 150', though as the access is still proposed as a directional crossover driveway there would not be any conflicting left-turn movements associated with that shift.]

Based on coordination with the North Carolina Department of Transportation (NCDOT), Site Access B (aligning with Gateway Drive) was studied in three separate access configurations:

- Access Scenario #1: Full-Movement Access
- Access Scenario #2: Thru-Cut Access
- Access Scenario #3: Reduced Conflict Intersection ("RCI", "Superstreet)

This report presents trip generation, distribution, traffic analyses, and recommendations for transportation improvements required to meet anticipated traffic demands in conjunction with the development. The traffic conditions studied include the existing (2025) and projected (2030) background and build-out traffic conditions for the AM and PM peak hours.

NCDOT and Town of Clayton staff provided background data and were consulted regarding the elements to be covered in this analysis. The NCDOT TIA Scoping Checklist is included in the Appendix of this report.

2.0 Inventory

2.1 *Study Area*

The study area for this development includes the following intersections:

- US 70 at Town Centre Boulevard
- US 70 at Financial Drive
- US 70 at Gateway Drive/ Site Access B (Full-Movement)
- US 70 at Medical Park Place/Site Access C (Left-in/Right-in/Right-out)
- US 70 at Shotwell Road
- US 70 at Site Access A (Right-In/Right-Out)
- US 70 at U-Turn East of Medical Park Place
  - Note: this U-turn was only included in Access Scenario #3 as neither Scenario #1 nor Scenario #2 are expected to add U-turns at that location, and then only in the build scenario since existing peak hour U-turn volumes were less than 2 vehicles in each peak

Figure 2.1 shows the site location, and the conceptual site plan is shown on **Figure 2.2**.

2.2 *Existing Conditions*

The proposed Heavner Property development is proposed to be located south of US 70 at Gateway Drive in Clayton, North Carolina. Roadway network elements (speed limit, estimated average daily traffic volume, and existing configuration of study area roadways are summarized in Table 2.1. Average daily traffic (ADT) volumes are provided in vehicles per day (vpd).

Table 2.1
Roadway Network Summary

Roadway	Speed Limit	NCDOT-Reported 2023 ADT Volume	Typical Existing Configuration
US 70	45-55 mph	39,500 vpd west of Shotwell Road	4-Lane Divided/ 6-Lane Divided
Shotwell Road	35 mph	9,900 vpd south of US 70	2-Lane Undivided

Figure 2.3 shows the existing roadway laneage.

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SITE LOCATION

FIGURE 2.1

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CONCEPT SITE PLAN STUDY

7 OCTOBER 2024

CASTO

FIGURE 2.2

CONCEPTUAL SITE PLAN

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EXISTING ROADWAY LANEAGE

FIGURE 2.3

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3.0 Traffic Generation

Trip generation calculations were performed using data from the 11th edition of the ITE *Trip Generation Manual,* and the trip generation potential of the site is shown below in Table 3.1.

Table 3.1
ITE Traffic Generation (Vehicles)

Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
				Total	In	Out	In	Out
220	Multifam. Housing, Low-Rise	330	d.u.	2,192	30	95	102	60
820	Shopping Center (>150k)	500,000	s.f.	18,920	266	163	863	935
Subtotal				21,112	296	258	965	995
Internal Capture				*998*	*2*	*2*	*63*	*63*
Pass-by Capture				*1,750*	*0*	*0*	*160*	*169*
Total Net New External Trips				**18,364**	**294**	**256**	**742**	**763**

As shown in Table 3.1, the proposed development is anticipated to generate approximately 18,364 net new external trips on a typical weekday, with 550 net new trips during the AM peak hour and 1,505 net new trips during the PM peak hour. Detailed trip generation calculations are included in the Appendix.

4.0 Site Traffic Distribution

The proposed generated trips were assigned to the roadway network based on a review of surrounding land uses in the area. Site trips were assigned to the network based on separate distributions and assignments developed for the residential and retail uses, and separate site traffic assignment was developed for Scenarios 1&2 (which were combined as there were no differences in assignment) and Scenario 3.

The following overall distribution, shown on **Figure 4.1** (for Scenarios 1&2) and **Figure 4.4 (**for Scenario 3), was used for residential trips:

- 40% to/from the west on US 70
- 40% to/from the east on US 70
- 10% to/from the south on Shotwell Road
- 5% to/from the north on Shotwell Road
- 5% to/from the adjacent shopping center/school

The following overall distribution, shown on **Figure 4.2** (for Scenarios 1&2) and **Figure 4.5** (for Scenario 3), was used for the retail trips:

- 40% to/from the west on US 70
- 40% to/from the east on US 70
- 10% to/from the south on Shotwell Road
- 5% to/from the north on Shotwell Road

Figure 4.3 depicts the retail pass-by percent assignment for the PM peak hour for Scenarios 1&2, while **Figure 4.6** depicts the retail pass-by percent assignment for the PM peak hour for Scenario 3.

FIGURE 4.1

SITE TRAFFIC DISTRIBUTION & PERCENT ASSIGNMENT (RESIDENTIAL) – ACCESS SCEN. #1&2

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FIGURE 4.2

SITE TRAFFIC DISTRIBUTION & PERCENT ASSIGNMENT (RETAIL) – ACCESS SCEN. #1&2

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FIGURE 4.3

RETAIL PM PASS-BY ASSIGNMENT - ACCESS SCEN. #1&2

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FIGURE 4.4

SITE TRAFFIC DISTRIBUTION & PERCENT ASSIGNMENT (RESIDENTIAL) – ACCESS SCEN. #3 (RCI)

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FIGURE 4.5

SITE TRAFFIC DISTRIBUTION & PERCENT ASSIGNMENT (RETAIL) – SCEN. #3 (RCI)

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FIGURE 4.6

RETAIL PM PASS-BY ASSIGNMENT – ACCESS SCEN. #3 (RCI)

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5.0 Projected Traffic Volumes

5.1 *Existing Traffic*

AM peak hour (7:00 to 9:00 AM) and PM peak hour (4:00 to 6:00 PM) turning movement counts were collected at the existing study intersections on January 8, 2025, while area public schools were in session.

The existing AM and PM peak hour traffic volumes are shown on **Figure 5.1,** and the traffic count data are included in the Appendix.

5.2 *Historic Growth Traffic*

Historic growth traffic is the increase in traffic due to non-specific growth throughout the area. Based on guidance from Town staff and NCDOT through the TIA scoping process, an annual growth rate of 2% was applied to the study intersection volumes up to the horizon year 2030. However, no growth will be applied to volumes into/out of Towne Centre Boulevard or Financial Drive as development is generally built-out.

5.3 *Approved Development Traffic*

While some small developments are within the proposed study area, the annual growth rate was determined as enough to account for the traffic from those projects as well as the ambient traffic growth.

5.4 *Background Traffic*

Projected (2030) background peak hour traffic volumes, which include existing and historic growth traffic, are shown on **Figure 5.2** for the AM and PM peak hours.

5.5 *Site Traffic*

The proposed site traffic was generated and assigned to the adjacent roadway network according to the distribution discussed previously in *Section 4.0*. The site traffic volumes for the AM and PM peak hours are shown on **Figures 5.3 and 5.4**, respectively, for Access Scenarios 1&2. The site traffic volumes for the AM and PM peak hours are shown on **Figures 5.7 and 5.8**, respectively, for Access Scenarios 1&2.

5.6 *Traffic Diversions*

Diversion of traffic volumes at several study intersections was accounted for in this analysis. With the anticipated relocation of the ABC Store to the west, site traffic into and out of the existing store driveway (aligning with Gateway Drive) was reassigned to the Financial Drive intersection. Traffic

diversions are also anticipated with the proposed conversion of Gateway Drive to a full-movement intersection aligning with Site Access B. To account for that conversion, existing westbound U-turn traffic along US 70 at the intersection was reassigned as southbound left-turn traffic from Gateway Drive in the build-out traffic condition.

Peak hour diverted traffic volumes are shown on **Figures 5.5, 5.6, 5.9,** and **5.10**.

5.7 *Build-Out Traffic*

To obtain the projected (2030) build-out traffic volumes, the projected site traffic and traffic diversions were added to the projected (2030) background traffic. Traffic volume calculations are detailed in intersection spreadsheets in the Appendix of this report. **Figures 5.5** and **5.6** show the projected (2030) AM and PM peak hour build-out traffic volumes, respectively for Access Scenarios 1&2. The site traffic volumes for the AM and PM peak hours are shown on **Figures 5.9 and 5.10**, respectively, for Access Scenario 3.

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EXISTING (2025) PEAK HOUR TRAFFIC VOLUMES

FIGURE 5.1

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PROJECTED BACKGROUND
(2030) PEAK HOUR
TRAFFIC VOLUMES

FIGURE
5.2

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PROJECTED AM TOTAL SITE TRAFFIC VOLUMES – ACCESS SCEN. #1&2 (FULL MVMT. & THRU–CUT)

FIGURE 5.3

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PROJECTED PM TOTAL SITE TRAFFIC VOLUMES – ACCESS SCEN. #1&2 (FULL MVMT. & THRU-CUT)

FIGURE 5.4

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ACCESS SCENARIOS #1&2

NOT TO SCALE

US 70

TOWN CENTRE BLVD.

PINECREST MEMORIAL GARDENS DRWY.

FINANCIAL DR.

GATEWAY DR.

MEDICAL PARK PL.

SHOTWELL RD.

ACCESS A

ACCESS B

ACCESS C

SITE

LEGEND

XX TOTAL BACKGROUND TRAFFIC

(XX) TOTAL SITE TRAFFIC (PRIMARY+PASSBY)

[XX] TRAFFIC DIVERSION

{XX} TOTAL BUILD-OUT TRAFFIC

FIGURE 5.5

PROJECTED BUILD-OUT (2030) AM PEAK HOUR TRAFFIC VOLUMES - ACCESS SCEN. #1&2 (FULL MVMT. & THRU-CUT)

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ACCESS SCENARIOS #1&2

NOT TO SCALE

US 70

TOWN CENTRE BLVD.

FINANCIAL DR.

PINECREST MEMORIAL GARDENS DRWY.

GATEWAY DR.

MEDICAL PARK PL.

SHOTWELL RD.

ACCESS A

ACCESS B

ACCESS C

SITE

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{230}(0)230

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10(0){10}
75(0){75}

{149}(4)145
{12}(0)12
{224}(0)224

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226(0){226}

{306}(179)163
{179}(0)179
{60}(0)60

223(0){223}
1226(365){1591}
118(0){118}
46(0){46}

LEGEND

XX TOTAL BACKGROUND TRAFFIC

(XX) TOTAL SITE TRAFFIC (PRIMARY+PASSBY)

[XX] TRAFFIC DIVERSION

{XX} TOTAL BUILD−OUT TRAFFIC

FIGURE 5.6

PROJECTED BUILD−OUT (2030) PM PEAK HOUR TRAFFIC VOLUMES − ACCESS SCEN. #1&2 (FULL MVMT. & THRU−CUT)

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FIGURE 5.7

PROJECTED AM TOTAL SITE TRAFFIC VOLUMES – ACCESS SCEN. #3 (RCI)

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PROJECTED PM TOTAL SITE TRAFFIC VOLUMES – ACCESS SCEN. #3 (RCI)

FIGURE 5.8

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ACCESS SCENARIO #3

NOT TO SCALE

LEGEND

XX	TOTAL BACKGROUND TRAFFIC
(XX)	TOTAL SITE TRAFFIC (PRIMARY+PASSBY)
[XX]	TRAFFIC DIVERSION
{XX}	TOTAL BUILD-OUT TRAFFIC

FIGURE 5.9

PROJECTED BUILD-OUT (2030) AM PEAK HOUR TRAFFIC VOLUMES - ACCESS SCEN. #3 (RCI)

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ACCESS SCENARIO #3

NOT TO SCALE

LEGEND

XX	TOTAL BACKGROUND TRAFFIC
(XX)	TOTAL SITE TRAFFIC (PRIMARY+PASSBY)
[XX]	TRAFFIC DIVERSION
{XX}	TOTAL BUILD−OUT TRAFFIC

FIGURE 5.10

PROJECTED BUILD−OUT (2030) PM PEAK HOUR TRAFFIC VOLUMES − ACCESS SCEN. #3 (RCI)

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6.0 Capacity Analysis

Capacity analyses (see Appendix) were performed for the AM and PM peak hours for the existing (2025) traffic condition and the projected (2030) background and build-out traffic conditions using Synchro Version 12 software to determine the operating characteristics of the adjacent road network and the impacts of the proposed project.

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

For unsignalized intersections, only the movements that must yield right-of-way experience control delay. Therefore, LOS criteria for the overall intersection is not reported by Synchro Version 12 or computable using methodology published in the *Highway Capacity Manual.* It is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. Table 6.0 lists the LOS control delay thresholds published in the *Highway Capacity Manual* for signalized and unsignalized intersections.

Table 6.0
Level-of-Service Control Delay Thresholds

Level-of-Service	Signalized Intersections – Control Delay Per Vehicle [sec/veh]	Unsignalized Intersections – Average Control Delay [sec/veh] & Qualitative Operational Description	
A	≤ 10	≤ 10	Short Delays
B	> 10 – 20	> 10 – 15	
C	> 20 – 35	> 15 – 25	
D	> 35 – 55	> 25 – 35	Moderate Delays
E	> 55 – 80	> 35 – 50	
F	> 80	> 50	Long Delays

Where count or projected volumes were less than 4 vehicles, a minimum volume of 4 was used in the Synchro analysis to be conservative, though volume figures and volume development spreadsheets reflect actual volumes for all movements. Existing peak hour factors (PHF) were used at existing intersections, but a PHF of 0.90 was used at new intersections. Right-turns on red (RTOR) and permitted + protected signal phasing were permitted where allowed today but prohibited at new signalized intersections. Existing signal inputs were obtained from the NCDOT signal plan, and signal timings were optimized in each traffic condition.

6.1 *US 70 at Town Centre Boulevard*

Analyses indicate that the signalized intersection of US 70 at Town Centre Boulevard currently operates at LOS C in both peak hours. Analyses indicate that the intersection is expected to operate at LOS B in the AM peak hour and LOS C in the PM peak hour in the study year 2030 with or without this proposed development in place.

No improvements are recommended to be performed at this intersection as part of this project.

Table 6.1 summarizes operations at the intersection of US 70 at Town Centre Boulevard for the existing (2025) and projected (2030) background and build-out traffic conditions. Note: where results are generally consistent between access scenarios, results from Scenario #2 were reported in the table below.

Table 6.1
Level-of-Service
US 70 at Town Centre Boulevard (Signalized)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2025) Traffic	C (21.2)	C (26.3)
Background (2030) Traffic	B (19.7)	C (26.4)
Build-out (2030) Traffic – Access Scenarios 1 & 2	B (16.0)	C (28.3)
Build-out (2030) Traffic – Access Scenario 3	C (21.5)	C (29.7)

6.2 *US 70 at Financial Drive*

Analyses indicate that the unsignalized intersection of US 70 at Financial Drive currently operates with moderate delays on the minor street approaches (Financial Drive/Cemetery Driveway) in the AM and PM peak hours. Analyses indicate that the intersection is expected to operate with short delays on the southbound approach and long delays on the minor street approaches in at least one peak hour in the study year 2030 with or without this proposed development in place. However, it is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. While long delays on the westbound left-turn movement on US 70 are expected to continue in the 2030 study year, the Heaver Property development is only expected to add through traffic along US 70 at this intersection and is not expected to contribute to those volumes. Therefore, no improvements are recommended to be performed to accommodate site traffic as part of this development.

Table 6.2 summarizes operations at the intersection of US 70 at Financial Drive for the existing (2025) and projected (2030) background and build-out traffic conditions. Note: where results are generally consistent between access scenarios, results from Scenario #2 were reported in the table below.

Table 6.2
Level-of-Service
US 70 at Financial Drive (Unsignalized)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2025) Traffic	NB – D (33.3) SB – C (19.3)	NB – E (46.8) SB – B (13.2)
Background (2030) Traffic	NB – E (42.9) SB – C (21.8)	NB – F (68.7) SB – B (14.0)
Build-out (2030) Traffic	NB – F (53.2) SB – C (22.9)	NB – F (147.8) SB – C (15.2)

6.3 *US 70 at Gateway Drive/Proposed Site Access B*

Analyses indicate that the unsignalized intersection of US 70 at Gateway Drive currently operates with short to moderate delays on the minor street approach (Gateway Drive) in the peak hours, conditions which Synchro analyses indicate would continue in the projected (2030) background traffic condition.

The following improvements are recommended to be performed as part of this development:

The following improvements are recommended to be performed as part of this development in *Access Scenario #1*:

- Reconfigure this intersection to a full-movement intersection
- Construct Site Access B as a full-movement access with two ingress lanes and four egress lanes
- Provide dual northbound left-turn lanes, a through lane, and an exclusive right-turn lane on Site Access B
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 350 feet of storage on that approach
- Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at this access
- Install a traffic signal

The following improvements are recommended to be performed as part of this development in *Access Scenario #2*:

- Reconfigure this intersection to a thru-cut configuration, permitting all intersection movements except for the northbound and southbound through movements
- Construct Site Access B with two ingress lanes and four egress lanes
- Provide dual northbound left-turn lanes and dual northbound right-turn lanes on Site Access B
- Provide separate left- and right-turn lanes on the southbound approach of Gateway Drive
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 300 feet of storage on that approach
- Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at this access
- Install a traffic signal

The following improvements are recommended to be performed as part of this development in *Access Scenario #3*:

- Construct Site Access B with two ingress lanes and two egress lanes
- Provide dual northbound right-turn lanes on Site Access B
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 300 feet of storage on that approach
- Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at this access
- Install a traffic signal for the US 70 Eastbound/Site Access B intersection

It was noted that acceptable intersection operations could be achieved in any of the access scenarios studied at the Gateway Drive/Site Access B intersection. However, as Access Scenario #3 (RCI) would likely result in U-turns at the directional crossover intersection of Medical Park Place and results in longer delays and queues at that intersection (and at the existing U-turn east of Medical Park Place), and as overall intersection delays are longest in Access Scenario #1, it is recommended that Access Scenario #2 is constructed at this intersection.

Table 6.3 summarizes operations at the intersection of US 70 at Gateway Drive/Proposed Site Access B for the existing (2025) and projected (2030) background and build-out traffic conditions.

Table 6.3
Level-of-Service
US 70 at Gateway Drive/Proposed Site Access B

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2025) Traffic - Unsignalized	NB – B (13.5) SB – D (28.1)	NB – C (20.7) SB – C (15.9)
Background (2030) Traffic – Unsignalized	NB – B (14.4) SB – E (36.3)	NB – C (23.7) SB – C (17.7)
Build-out (2030) Traffic – Sig., Access Scen. #1	C (32.3)	D (51.4)
Build-out (2030) Traffic – Sig., Access Scen. #2	B (18.8)	C (27.6)
Build-out (2030) Traffic – Access Scenario #3: Unsig. SB App., Sig. NB App.	Gateway Dr.: SB – D (27.7) Access B: B (13.2)	Gateway Dr.: SB – C (19.5) Access B: B (12.4)

6.4 *US 70 at Medical Park Place/ Proposed Site Access C*

Analyses indicate that the unsignalized intersection of US 70 at Medical Park Place currently operates with short delays on the minor street approach (Medical Park Place) in the peak hours, while short to moderate delays are anticipated in the projected (2030) background traffic condition.

The following improvements are recommended to be performed as part of this development:

- Construct Site Access C as a left-in/right-in/right-out access with one ingress lane and two egress lanes
- Extend the storage of the existing westbound left-turn lane on US 70 to provide 350 feet of storage
- Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at this access
- Install a traffic signal for the northbound approach of Site Access C

Analyses indicate that, with the recommended improvements in place, both the unsignalized minor-street approach of Medical Park Place and the signalized approach/intersection of Site Access C are expected to operate at acceptable LOS at project build-out.

[Note: depending on final site design, Site Access C may be shifted east of Medical Park Place by approximately 150', though as the access is still proposed as a directional crossover driveway there would not be any conflicting left-turn movements associated with that shift.]

Table 6.4 summarizes operations at the intersection of US 70 at Medical Park Place/ Proposed Site Access C for the existing (2025) and projected (2030) background and build-out traffic conditions. Note: where results are generally consistent between access scenarios, results from Scenario #2 were reported in the table below.

Table 6.4
Level-of-Service
US 70 at Medical Park Place/Proposed Site Access C

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2025) Traffic – Unsig.	SB – C (23.2)	SB – B (14.5)
Background (2030) Traffic – Unsig.	SB – D (26.9)	SB – C (15.6)
Build-out (2030) Traffic – Access Scenario #1 & 2: Unsig. SB App., Sig. NB App.	Med. Park Pl.: SB – D (26.6) Access C: B (11.9)	Med. Park Pl.: SB – C (18.6) Access C: C (28.2)
Build-out (2030) Traffic – Access Scenario #3: Unsig. SB App., Sig. NB App.	Med. Park Pl.: SB – D (24.2) Access C: A (6.5)	Med. Park Pl.: SB – C (19.3) Access C: C (30.3)

6.5 *US 70 at Shotwell Road*

Analyses indicate that the signalized intersection of US 70 at Shotwell Road currently operates at LOS D in the peak hours.

The following improvements are committed as part of NCDOT project HL-0127 and were included in the future traffic conditions:

- Construct a second eastbound left-turn lane on US 70 to provide dual left-turn lanes on that approach, and provide a northbound receiving lane on Shotwell Road
- Construct a second northbound left-turn lane on Shotwell Road to provide dual left-turn lanes on that approach
- Construct a southbound right-turn lane on Shotwell Road
- Modify the existing traffic signal to accommodate the identified laneage

Analyses indicate that the intersection is expected to continue to operate at LOS D in the peak hours in the study year 2030 with or without the proposed project in place. As only relatively minor increases in intersection delays are anticipated with the addition of site traffic, no improvements are recommended to be performed to accommodate site traffic as part of this development.

Table 6.5 summarizes operations at the intersection of US 70 at Shotwell Road for the projected (2030) build-out traffic condition. Note: where results are generally consistent between access scenarios, results from Scenario #2 were reported in the table below.

Table 6.5
Level-of-Service
US 70 at Shotwell Road (Full-Movement)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2025) Traffic	D (45.1)	D (48.7)
Background (2030) Traffic with Improvements by Others	D (38.9)	D (49.8)
Build-out (2030) Traffic with Improvements by Others	D (39.5)	D (54.3)

6.6 *US 70 at Proposed Site Access A*

A right-in/right-out site access with one ingress lane and one egress lane is proposed to be constructed on US 70 approximately 520 feet east of Financial Drive.

The following improvement is recommended as part of this development:

- Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at each site access

Analyses indicate that this intersection is anticipated to operate with short delays on the minor street approach (Site Access A) in the AM peak hour and long delays in the PM peak hour. However, it is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. Synchro indicates that no queueing issues are expected at this intersection, and adjacent traffic signals would be expected to provide gaps in traffic flow for exiting traffic.

Table 6.6 summarizes operations at the intersection of US 70 at Proposed Site Access A for the projected (2030) build-out traffic condition. Note: where results are generally consistent between access scenarios, results from Scenario #2 were reported in the table below.

Table 6.6
Level-of-Service
US 70 at Proposed Site Access A (Right-In/Right-Out, Unsignalized)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2030) Traffic	NB – C (15.3)	NB – F (81.2)

7.0 Recommendations

Improvements by Others

The following improvements are committed as part of North Carolina Department of Transportation (NCDOT) project HL-0127 and were included in the future traffic conditions:

US 70 at Shotwell Road:

- Construct a second eastbound left-turn lane on US 70 to provide dual left-turn lanes on that approach, and provide a northbound receiving lane on Shotwell Road
- Construct a second northbound left-turn lane on Shotwell Road to provide dual left-turn lanes on that approach
- Construct a southbound right-turn lane on Shotwell Road
- Modify the existing traffic signal to accommodate the identified laneage

Recommended Improvements by Development – Access Scenario #1

The following improvements are recommended to be performed as part of this development in Access Scenario #1:

US 70:

- Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at each site access

US 70 at Site Access A:

- Construct Site Access A as a right-in/right-out access with one ingress lane and one egress lane

US 70 at Gateway Drive/Site Access B:

- Reconfigure this intersection to a full-movement intersection
- Construct Site Access B as a full-movement access with two ingress lanes and four egress lanes
- Provide dual northbound left-turn lanes, a through lane, and an exclusive right-turn lane on Site Access B
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 350 feet of storage on that approach
- Install a traffic signal

US 70 at Medical Park Place/Site Access C:

- Construct Site Access C as a left-in/right-in/right-out access with one ingress lane and two egress lanes
- Extend the storage of the existing westbound left-turn lane on US 70 to provide 350 feet of storage
- Install a traffic signal for the US 70 Eastbound/Site Access C intersection

Figure 7.1 shows the committed and recommended roadway laneage at project build-out in Access Scenario #1.

Recommended Improvements by Development – Access Scenario #2

Recommended improvements were identified for Access Scenario #2 and are consistent with those for Access Scenario #1 unless otherwise noted below:

US 70 at Gateway Drive/Site Access B:

- Reconfigure this intersection to a thru-cut configuration, permitting all intersection movements except for the northbound and southbound through movements
- Construct Site Access B with two ingress lanes and four egress lanes
- Provide dual northbound left-turn lanes and dual northbound right-turn lanes on Site Access B
- Provide separate left- and right-turn lanes on the southbound approach of Gateway Drive
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 300 feet of storage on that approach
- Install a traffic signal

Figure 7.2 shows the committed and recommended roadway laneage at project build-out in Access Scenario #2.

Recommended Improvements by Development – Access Scenario #3

Recommended improvements were identified for Access Scenario #3 and are consistent with those for Access Scenario #1 unless otherwise noted below:

US 70 at Gateway Drive/Site Access B:

- Construct Site Access B with two ingress lanes and two egress lanes
- Provide dual northbound right-turn lanes on Site Access B
- Construct an additional westbound left-turn lane on US 70, and extend the storage of the existing westbound left-turn lane, to provide dual left-turn lanes with 300 feet of storage on that approach
- Install a traffic signal for the US 70 Eastbound/Site Access B intersection

US 70 Westbound at U-Turn East of Medical Park Place:

- Extend the storage of the existing eastbound U-turn lane to provide 200 feet of storage and appropriate tapers

Figure 7.3 shows the committed and recommended roadway laneage at project build-out in Access Scenario #3.

Conclusions

Analyses indicate that with the recommended improvements in place, all the signalized study intersections are expected to operate acceptably at project build-out. The unsignalized intersection

of US 70 at Financial Drive is expected to operate with long delays in the study year 2030 with or without the proposed development in place, and this project is only expected to add through trips at this intersection. While the unsignalized intersection of US 70 at Site Access A is expected to operate with long delays at project build-out in the PM peak hour, it is anticipated that nearby traffic signals would provide gaps in traffic flow not fully recognized in Synchro. The U-turn on US 70 east of Medical Park Place is expected to operate with long delays in both peak hours in Access Scenario #3 at project build-out; however, these delays are only expected in Access Scenario #3 since existing peak hour U-turn volumes are less than 2 vehicles and no additional U-turns would be expected in Access Scenario #1 or #2.

It was noted that acceptable intersection operations could be achieved in any of the access scenarios studied at the Gateway Drive/Site Access B intersection. However, as Access Scenario #3 (RCI) would likely result in U-turns at the directional crossover intersection of Medical Park Place and results in longer delays and queues at that intersection (and at the existing U-turn east of Medical Park Place), and as overall intersection delays are longest in Access Scenario #1, it is recommended that Access Scenario #2 is constructed at this intersection.

FIGURE 7.1

COMMITTED AND RECOMMENDED LANEAGE – ACCESS SCEN. #1 (FULL MVMT.)

HEAVNER PROPERTY
CLAYTON, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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

FIGURE 7.2

COMMITTED AND RECOMMENDED LANEAGE – ACCESS SCEN. #2 (THRU-CUT)

HEAVNER PROPERTY
CLAYTON, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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FIGURE 7.3

COMMITTED AND RECOMMENDED LANEAGE – ACCESS SCEN. #3 (RCI)

HEAVNER PROPERTY
CLAYTON, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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

Appendix

Appendix A:
NCDOT TIA Scoping Documents

NCDOT Traffic Impact Analysis Need Screening / Scoping Request

TIA Need Screening → TIA Scoping → TIA Submittal

A Traffic Impact Analysis (TIA) may be required for developments based on the site trip generation estimates, site context, or at the discretion of the NCDOT District Engineer. The Applicant or the TIA Consultant shall submit this form along with the site plan to the District Engineer to determine the TIA need and, if a TIA is required, initiate the TIA scoping process. Without an approved scope, the TIA is incomplete and will be rejected until the study is revised to conform to NCDOT's TIA requirements.

Project Name: Johnston Grove Mixed-Use Previous Name: If Applicable

Location: South of US 70 Business at Gateway Drive County: Johnston Municipality: Clayton

Project Description: Approximaetly 400 multifamily dwelling units and 450k SF of combined commercial space with access along US 70 Business

Project Contact:	Applicant	TIA Consultant
Company Name	CASTO	Kimley-Horn
Contact Person	Tom Lowell	Kevin Dean
Phone Number		919-678-4185
Email		kevin.dean@kimley-horn.com
Mailing Address		300 S Main Street, Suite 212
		Holly Springs, NC 27540

Site Plan Prepared By: Ci Site Plan Date: 10/7/24

See site plan/vicinity map requirements on page 2.

Parcel Size: 75 Acre(s) Anticipated Build-Out Year: 2030

Weekday Site Trip Generation - Do NOT adjust for mode split, pass-by, internal capture, or diverted trips.

ITE LUC	Proposed Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
220	Multifam,LowRise	400	DU	2640	Adj. Street	35	112	147	122	71	193	ITE Equation
820	Shop Cen (>150k)	450000	SF	17614	Adj. Street	247	152	399	800	867	1667	ITE Equation
Total												

Refer to the current *NCDOT Congestion Management Capacity Analysis Guidelines* for acceptable trip calculation methods and data sources.

**Explain local or other data sources, if used:

☒ The estimated site trips meet NCDOT's TIA trip threshold of 3,000 daily trips.

☒ The estimated site trips meet the municipal TIA trip threshold of 1000 daily/100 peak

☐ This project is located in a known STIP and/ or local CIP project #

☒ This project includes a rezoning request.

☒ The proposed site access is located within 1,000 feet of an interchange.

☐ The Applicant requests for a new or modified control-of-access break.

☒ The Applicant requests for a new or modified median break.

Applicant's Signature Print Name Date

NCDOT Traffic Impact Analysis Need Screening / Scoping Request

TIA Need Screening → TIA Scoping → TIA Submittal

Site Plan/Vicinity Map Requirement for TIA Need Screening: While the site plan may not be finalized during the TIA scoping stage, the graphic representation of the proposed development shall provide adequate details on the development scope and context. More specifically, the site plan/map shall clearly show the location and type of each access point, spacing to adjacent and opposing driveways or intersections, internal street network, proposed buildings/parcels with their anticipated uses and sizes at full build-out and, if applicable, any nearby interstate, US, NC or Secondary Roads (SR).

Project Name: Johnston Grove Mixed-Use **Project Reference Number:** _____

☒ **A TIA is Required by the Local Government.** In addition, the study area is expected to include NCDOT maintained transportation facilities.

☒ **A TIA is Required by NCDOT,** per the *Policy on Street and Driveway Access to North Carolina Highways*.

If either or both of the boxes above are checked, the Applicant/TIA Consultant is hereby requested to fill out as much as possible of the following TIA scoping checklist, and return it along with the supporting documents to NCDOT prior to the scoping meeting.

☐ **A TIA is NOT required**. This decision is based on the development information presented above. Changes in the development plan will require re-evaluation of the TIA need, and may necessitate a TIA. The Applicant should inform the District Engineer of any significant changes in a timely fashion to avoid delays or rejections of the driveway permit / encroachment agreement applications.

Additional Comments:

The TIA need decision is made by the NCDOT Division ____ District____ on _____.

NCDOT District Representative's Signature
Email concurrence may be used in lieu of the signature.

Print Name

NCDOT TIA Scoping Checklist

TIA Need Screening → TIA Scoping → TIA Submittal

Project Name: Johnston Grove Mixed-Use **TIA Scoping Date:** 12/16/24

☒ **TIA Need Screening Forms are Attached.** Project Reference #: _____ Decision Date: _____

☒ **Site Plan and Access**

☒ Provide a site plan illustrating site access, internal and external roadways, buildings and land uses.
Refer to NCDOT's *Policy on Street and Driveway Access to North Carolina Highways* pages 14 and 15 for site plan requirements.

☒ Identify site access.

New Access	On Road	Access Type		Driveway Spacing		
	Road Name	Permitted Movements	Traffic Control	Distance (ft)	Direction	Nearest Intersection / Access
Access A	US 70 Bus	RIRO	2-Way Stop	525	East	Financial Dr
Access B	US 70 Bus	Conventional Full-Mvmt	Signal	0	South	Gateway Dr
Access C	US 70 Bus	RIRO w/ Left-Over	Signal	0	South	Med Park Pl
Access D						
Access E						
Access F						
Access G						
Access H						

Existing Access	Existing Intersection of		Access Modification	Proposed Interconnectivity (If Applicable)		
	Road A	Road B		Connector #	Road Connected	Adjacent Development
Access 1	Financial Dr	Town Centre	N/A	Connector 1		
Access 2				Connector 2		
Access 3				Connector 3		
Access 4				Connector 4		

☒ Additional access clarifications and provisions (e.g., proposed control-of-access or median breaks, modifications of existing access, loading/unloading area access, bike/pedestrian accommodation).

Full-movement access would require modifying existing left-in/right-in/right-out median config. on US 70 Business at Gateway Drive

☐ **Proposed K-12 School Site**

☐ NCDOT MSTA School Traffic Calculator for Select School Type shall be used.

☐ Peak Hour Factors (PHFs) shall be adjusted/weighted for new school trips (0.5 PHF by default).

☐ Internal school circulation analysis is required, and should be submitted in advance or concurrent with the TIA submittal.

☐ Clarify traffic operation plans (e.g. traffic circulation pattern, pedestrian access, drop-off/pick-up zone location and configuration, queue storage area and, if applicable, staggered start times).

☒ Trip Generation

The TIA Consultant shall prepare trip generation estimates following the current *NCDOT Congestion Management Capacity Analysis Guidelines*, and submit the calculation sheets and supporting information to the District Engineer for approval prior to capacity analysis.

ITE LUC	Proposed Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
220	Multifam,LowRise	400	DU	2640	Adj. Street	35	112	147	122	71	193	ITE Equation
820	Shop. Cen (>150K)	450000	SF	17614	Adj. Street	247	152	399	800	867	1667	ITE Equation
Unadjusted Site Trips				20254		282	264	546	922	938	1860	
Internal Capture Trips (Attach Calculation Sheets)				1202		2	2	4	150	75	75	NCHRP 684
Internal Capture % of Unadjusted Site Trips				6 %		1 %			%			
LUC	Proposed Land Use	Any Internal Trips?		Pass-By % of External Trips								
820	Shop Cen (>150k)	Yes - Adjust External Trips		10 %		0 %			19 %			Please Select
				%		%			%			
				%		%			%			
				%		%			%			
				%		%			%			
Pass-By Trips (Attach Calculation Sheets)				1616		0	0	0	148	155	303	
Adjacent Street Volumes												Please Select
Non-Pass-By Primary Trips				17436		280	262	542	699	708	1407	
Diverted Trips, if Applicable and Justifiable												Please Select

**Explain local or other data sources, if used:

☐ Existing Site Trip Information for Redevelopment Projects (Attach separate sheets as needed)

ITE LUC	Existing Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
					Please Select							Please Select
Total Existing Site Trips												

☒ **Trip Distribution**

☒ Trip distribution diagrams are submitted concurrently with this document (attach separate sheets).

☐ Trip distribution diagrams will be submitted separately, along with supporting information, to the District Engineer for review and approval prior to capacity analysis. The trip distribution shall be based on the current and anticipated traffic patterns, as well as instructions noted below.

If required by the District Engineer, the following additional diagrams shall also be submitted:

☐ Mixed-Use Developments (separate diagrams for residential, commercial, and office trips)

☐ Inter-Development Trips (if 'internal" trips cross public streets)

☐ Pass-By Trips

☐ Diverted Trips

☐ Each Analysis Period

☐ **Mode Split**

☐ Provide Data Source and Justification

Mode / Period	Auto		
AM Peak	%	%	%
PM Peak	%	%	%
Daily	%	%	%
	%	%	%

☐ Identify proper infrastructure and accommodation for other modes of travel.

☒ **Analysis Peak Periods:**

☒ Weekday AM Peak 7:00-9:00AM

☒ Weekday PM Peak 4:00-6:00PM

☐ Weekday Midday Peak _____

☐ Weekday PM School Peak _____

☐ Weekend _____ Peak _____

☐ Other _____

☒ Study Area Intersections and Data Collection

The study area shall include the site access intersections (both new and existing) identified under "Site Plan and Access" on page 1, as well as the following external and, if applicable, internal intersections.

External Intersection	Intersection of		Traffic Control	Intersection Turning Movement Counts			Notes
	Road A	Road B		New / Existing	Date of Counts	Growth Adjustment	
#1	US 70 Bus	Town Centre Blvd	Signal	Require New Counts			
#2	US 70 Bus	Financial Dr	2-Way Stop	Require New Counts			
#3	US 70 Bus	Gateway Dr	2-Way Stop	Require New Counts			
#4	US 70 Bus	Med Park Pl	2-Way Stop	Require New Counts			
#5	US 70 Bus	Shotwell Rd	Signal	Require New Counts			
#6							
#7							
#8							
#9							
#10							
#11							
#12							

Internal Intersection	Intersection of		Access Type		Intersection Spacing		
	Road A	Road B	Traffic Control	Permitted Movements	Distance (ft)	Direction	Nearest Intersection
#101			Please Select	Please Select		Please Select	
#102							
#103							
#104							
#105							

The following data will be collected:

☒ New traffic turning movement counts in ☒ 15-min intervals ☐ 5-min intervals (near schools)
Unless otherwise noted above, new traffic counts shall be collected at the existing study intersections during the analysis periods. Weekday counts shall avoid Mondays, Fridays, holidays, school breaks, road closures, and major weather events.

☐ To account for the impact of existing and/or proposed school traffic, PHFs will be adjusted for:

intersections numbered: _____

and access points numbered: _____

☐ Traffic Forecast Data for TIP: _____

☒ Roadway/Intersection Configuration & Traffic Control

☒ Traffic Signal Phasing & Timing Data

☐ Crash Data: _____ Period: _____

☐ Other:

☒ **Future Year Conditions**

☒ Project Build-Out Year: 2030

☒ Future Analysis Year(s): 2030

☐ Identify below any funded/committed future transportation improvements, as well as any approved but incomplete developments near the site.

Funded STIP / Local CIP Project	Project Description	Year Complete
HL-0127 (Shotwell)	Imps at US 70 Bus/Shotwell Rd Int.	2028

Nearby Approved Development	Location	Future Land Use (exclude any completed phases)	Committed Improvements

☒ Annual Growth Factor: 2 %

Justification/Data Source: NCDOT AADT data

☐ **Local Comprehensive Transportation Plan Compliance**

☐ Identify Applicable Local Transportation Planning Documents

☐ Identify Applicable Roadways inside the Study Area

Road Name	Classification	Speed Limit	Proposed Cross-Section	Proposed Right-of-Way	Compliance Requirements	Affect Study Intersection #

Revised 1/3/2025

TIA Methodology Summary
Johnston Grove Mixed-Use
Clayton, North Carolina

Kimley-Horn will perform a traffic impact analysis (TIA) for the Johnston Grove Mixed-Use project, which is proposed to be located on the south side of US 70 Business east of Financial Drive in Clayton, NC. The site is currently occupied by a North Carolina ABC Store (which is proposed to relocate to the southeast corner of the intersection of US 70 Business at Financial Drive). As currently envisioned the development will include approximately 400 low-rise multifamily dwelling units and 450,000 square feet (SF) of retail space, which is expected to include 1-2 large retail stores, some smaller in-line retail space, and several outparcels. Site access is proposed via one full-movement access (aligning with Gateway Drive), one left-in/right-in/right-out access (aligning with Medical Park Place), and one right-in/right-out access along US 70 Business, as well as via a stub to Financial Drive to the west. Project build-out is anticipated in 2030.

The following assumptions will be used in the analysis based on TIA scoping discussions with representatives from the Town of Clayton and North Carolina Department of Transportation (NCDOT) on December 16, 2024:

Study Scenarios
Weekday AM and PM peak hour analyses will be performed for the following traffic conditions:

- Existing Year (2025) [note: turning movement counts will be collected in January 2025]
- Future Year (2030) Background
- Future Year (2030) Build-out

Study Intersections
The following study intersections will be included in this analysis:

- US 70 Business at Town Centre Boulevard
- US 70 Business at Financial Drive
- US 70 Business at Proposed Right-in/Right-out Site Driveway
- US 70 Business at Gateway Drive/Proposed Full-Movement Site Driveway
- US 70 Business at Medical Park Place/Proposed Left-in Site Driveway
- US 70 Business at Shotwell Road

Existing Volume Development
Weekday AM (7-9AM) and PM (4-6PM) peak hour turning movements will be collected while Johnston County Public Schools are in session, so no adjustments to existing volumes are expected to be required with this study.

Background Traffic Growth
Based on discussions with the Town and NCDOT, a 2% annual growth rate will be applied to existing traffic count volumes up to the future study year.

Approved Developments
While some small developments are proposed in the study area, it was determined that the 2% annual growth rate would be sufficient to account for traffic from those projects as well as ambient traffic growth. No growth will be applied to Towne Center Boulevard or Financial Drive.

Roadway Improvements by Others

NCDOT project HL-0127 proposes improvements at the intersection of US 70 Business at Shotwell Road, including construction of an additional eastbound left-turn lane on US 70 Business (and associated receiving lane on Shotwell Road) and an additional northbound left-turn lane on Shotwell Road. Those improvements are anticipated to be constructed prior to the 2030 study year and will be included in each of the future traffic conditions.

Trip Generation

Trip generation calculations will be performed based on data from the 11th Edition of the ITE *Trip Generation Manual*. The combined retail space (anchor buildings, in-line retail, outparcels, etc.) will be analyzed as land use code (LUC) 820.

Trip Distribution

Separate trip distribution assumptions will be used for residential and retail portions of the site based on a review of surrounding land uses.

The following overall directional distribution will be used for residential site trips:

- 40% to/from the west on US 70 Business
- 40% to/from the east on US 70 Business
- 10% to/from the south on Shotwell Road
- 5% to/from the north on Shotwell Road
- 5% to/from the adjacent shopping center/school

The following overall directional distribution will be used for net new retail site trips:

- 50% to/from the east on US 70 Business
- 20% to/from the west on US 70 Business
- 20% to/from the south on Shotwell Road
- 10% to/from the north on Shotwell Road

Volume Diversions

Volume diversions may be applied for trips exiting the mixed-use development to the north of US 70 Business (along Gateway Drive) to reflect the proposed change in access at Gateway Drive from left-in access to full-movement access.

Other Study Assumptions

The following assumptions will be used in the analysis:

- Existing peak hour factors (PHF) will be used at existing intersections to reflect impacts of the adjacent school along Financial Drive and existing and projected levels of traffic, but a PHF of 0.90 will be used at new intersections.
- A minimum volume of 4 vehicles will be used for all intersection movements even if existing or projected volumes are lower.
- Right-turns on red (RTOR) will be permitted where allowed today but prohibited at new signalized intersections.
- Permitted + protected signal phasing will be permitted where allowed today but protected only phasing will be used for new signalized intersections.
- Existing signal inputs will be obtained from NCDOT or the signal cabinets, and optimized signal timings will be used for each traffic condition.

Johnston Grove (Heavner)

Table 1 - Trip Generation (11th Edition)

Land Use	Intensity		Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
220 Multifamily Housing (Low-Rise)	400	d.u.	2,640	1,320	1,320	147	35	112	193	122	71
820 Shopping Center (>150K)	450,000	s.f.	17,614	8,807	8,807	399	247	152	1,667	800	867
Subtotal			**20,254**	**10,127**	**10,127**	**546**	**282**	**264**	**1,860**	**922**	**938**
Internal Capture											
220 Multifamily Housing (Low-Rise)			601	317	284	2	1	1	75	52	23
820 Shopping Center (>150K)			601	284	317	2	1	1	75	23	52
Internal Capture Total	0.73%	8.06%	*1,202*	*601*	*601*	*4*	*2*	*2*	*150*	*75*	*75*
Total External Trips			**19,052**	**9,526**	**9,526**	**542**	**280**	**262**	**1,710**	**847**	**863**
Pass-By Capture	AM	PM									
820 Shopping Center (>150K)	0%	19%	1,616	808	808	0	0	0	303	148	155
Total Net New External Trips			**17,436**	**8,718**	**8,718**	**542**	**280**	**262**	**1,407**	**699**	**708**

K:\HSP_LDEV\012256009 Heavner, Johnston Grove - Clayton\T4 - Analysis\[HeavnerPropClayton-TIAData.xlsx]Trip Gen-Dec2024 12/20/24

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION

INPUT

Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit	Enter	Exit
Office	0	0	0	0	0	0
Retail	8,807	8,807	247	152	800	867
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1,320	1,320	35	112	122	71
Hotel	0	0	0	0	0	0
	10,127	10,127	282	264	922	938

INTERNAL TRIPS

OUTPUT

Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit	Enter	Exit
Office	0	0	0	0	0	0
Retail	284	317	1	1	30	56
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	317	284	1	1	56	30
Hotel	0	0	0	0	0	0
	601	601	2	2	86	86
% Reduction	5.9%		0.7%		9.2%	

EXTERNAL TRIPS

OUTPUT

Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit	Enter	Exit
Office	0	0	0	0	0	0
Retail	8,523	8,490	246	151	770	811
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1,003	1,036	34	111	66	41
Hotel	0	0	0	0	0	0
	9,526	9,526	280	262	836	852

NCHRP 684 Internal Trip Capture Estimation Tool

Project Name:	Johnston Grove (Heavner)	**Organization:**	Kimley-Horn
Project Location:	Clayton, NC	**Perormed By:**	
Scenario Description:	Full Build	**Date:**	
Analysis Year:	2030	**Checked By:**	
Analysis Period:	**AM Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		0	SF	0	0	0
Retail	820	450,000	SF	399	247	152
Restaurant		0	SF	0	0	0
Cinema/Entertainment		0	SF	0	0	0
Residential	220	400	units	147	35	112
Hotel		0	rooms	0	0	0
All Other Land Uses[2]		0	SF	0	0	0
				546	**282**	**264**

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.1	0%	0%	1.1	0%	0%
Retail	1.1	0%	0%	1.1	0%	0%
Restaurant	1.1	0%	0%	1.1	0%	0%
Cinema/Entertainment	1.1	0%	0%	1.1	0%	0%
Residential	1.1	0%	0%	1.1	0%	0%
Hotel	1.1	0%	0%	1.1	0%	0%
All Other Land Uses[2]	1.1	0%	0%	1.1	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	600	310	290
Internal Capture Percentage	1%	1%	1%
External Vehicle-Trips[5]	543	281	262
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	0%	0%
Retail	0%	1%
Restaurant	0%	0%
Cinema/Entertainment	0%	0%
Residential	3%	1%
Hotel	0%	0%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE).
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made
[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
[6]Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D) Entering Trips			Table 7-A (O) Exiting Trips		
	Veh. Occ.[4]	Vehicle Trips	Person-Trips*	Veh. Occ.[4]	Vehicle Trips	Person-Trips*
Office	1.1	0	0	1.1	0	0
Retail	1.1	247	272	1.1	152	167
Restaurant	1.1	0	0	1.1	0	0
Cinema/Entertainment	1.1	0	0	1.1	0	0
Residential	1.1	35	39	1.1	112	123
Hotel	1.1	0	0	1.1	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	48		22	0	23	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	25	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		87	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	22		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	46	0	0		0
Hotel	0	11	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	271	272	246	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	38	39	35	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	166	167	151	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	122	123	111	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
[2]Person-Trips
[3]Total estimate for all other land uses at mixed use development site is not subject to internal capture computations in this estimator.
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool

Project Name:	Johnston Grove (Heavner)	**Organization:**	Kimley-Horn
Project Location:	Clayton, NC	**Peromed By:**	
Scenario Description:	Full Build	**Date:**	
Analysis Year:	2030	**Checked By:**	
Analysis Period:	**PM Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		0	SF	0	0	0
Retail	820	450,000	SF	1,667	800	867
Restaurant		0	SF	0	0	0
Cinema/Entertainment		0	SF	0	0	0
Residential	220	400	units	193	122	71
Hotel		0	rooms	0	0	0
All Other Land Uses[2]		0	SF	0	0	0
				1,860	**922**	**938**

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.1	0%	0%	1.1	0%	0%
Retail	1.1	0%	0%	1.1	0%	0%
Restaurant	1.1	0%	0%	1.1	0%	0%
Cinema/Entertainment	1.1	0%	0%	1.1	0%	0%
Residential	1.1	0%	0%	1.1	0%	0%
Hotel	1.1	0%	0%	1.1	0%	0%
All Other Land Uses[2]	1.1	0%	0%	1.1	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					1000	
Restaurant						
Cinema/Entertainment						
Residential		1000				
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	57	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	25	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	2,046	1,014	1,032
Internal Capture Percentage	8%	8%	8%
External Vehicle-Trips[5]	1,710	847	863
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	0%	0%
Retail	3%	6%
Restaurant	0%	0%
Cinema/Entertainment	0%	0%
Residential	43%	32%
Hotel	0%	0%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE).
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made
[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[6]Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D) Entering Trips			Table 7-P (O) Exiting Trips		
	Veh. Occ.[4]	Vehicle Trips	Person-Trips*	Veh. Occ.[4]	Vehicle Trips	Person-Trips*
Office	1.1	0	0	1.1	0	0
Retail	1.1	800	880	1.1	867	954
Restaurant	1.1	0	0	1.1	0	0
Cinema/Entertainment	1.1	0	0	1.1	0	0
Residential	1.1	122	134	1.1	71	78
Hotel	1.1	0	0	1.1	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	19		277	38	231	48
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	25	16	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		70	0	0	5	0
Retail	0		0	0	57	0
Restaurant	0	440		0	21	0
Cinema/Entertainment	0	35	0		5	0
Residential	0	67	0	0		0
Hotel	0	18	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	25	855	880	777	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	57	77	134	70	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	57	897	954	815	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	25	53	78	48	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[2]Person-Trips
[3]Total estimate for all other land uses at mixed use development site is not subject to internal capture computations in this estimator.
*Indicates computation that has been rounded to the nearest whole number.

Appendix B:
Traffic Count Data

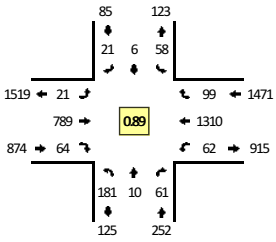
Type of peak hour being reported: Intersection Peak

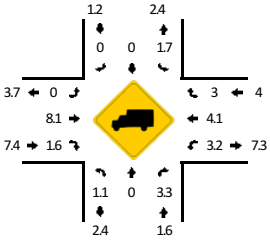
Method for determining peak hour: Total Entering Volume

LOCATION: Town Centre Blvd/Walmart Dwy -- US 70
CITY/STATE: Johnston, NC

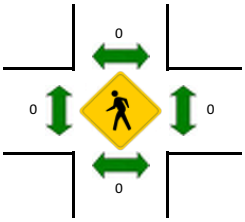
QC JOB #: 16875501
DATE: Wed, Jan 8 2025

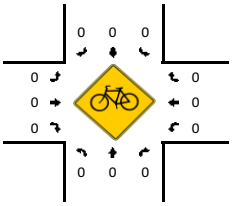
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

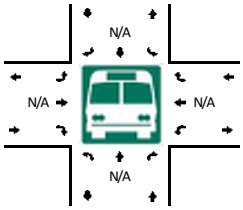


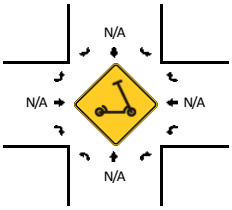


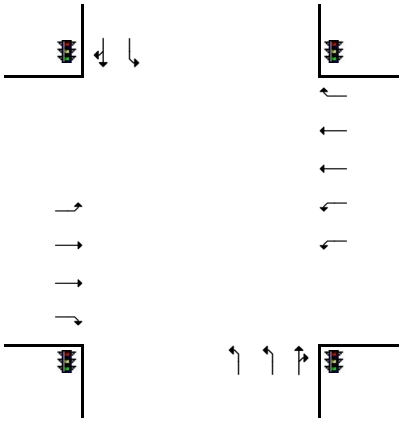
TRUE DATA TO IMPROVE MOBILITY











15-Min Count Period Beginning At	Town Centre Blvd/Walmart Dwy (Northbound)				Town Centre Blvd/Walmart Dwy (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	11	3	3	0	9	0	2	0	3	145	12	3	9	368	19	0	587	
7:15 AM	13	1	7	0	16	0	7	0	3	176	15	4	14	380	17	0	653	
7:30 AM	51	3	18	0	14	2	1	0	4	212	14	1	12	295	24	2	653	
7:45 AM	66	1	23	0	12	1	5	0	5	219	16	0	17	357	29	4	755	2648
8:00 AM	51	5	13	0	16	3	8	0	2	182	19	2	12	278	29	1	621	2682
8:15 AM	9	0	6	0	19	2	5	0	3	139	15	4	5	311	23	2	543	2572
8:30 AM	9	1	14	0	11	2	7	0	3	129	11	3	10	291	26	0	517	2436
8:45 AM	17	1	9	0	14	3	3	0	10	135	10	0	15	267	27	0	511	2192

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	264	4	92	0	48	4	20	0	20	876	64	0	68	1428	116	16	3020
Heavy Trucks	0	0	4		4	0	0		0	60	0		0	52	4		124
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:20 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

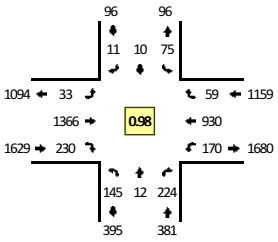
Type of peak hour being reported: Intersection Peak

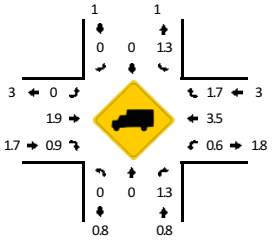
Method for determining peak hour: Total Entering Volume

LOCATION: Town Centre Blvd/Walmart Dwy -- US 70
CITY/STATE: Johnston, NC

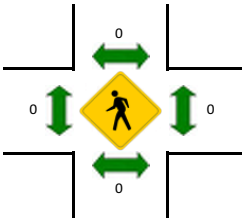
QC JOB #: 16875502
DATE: Wed, Jan 8 2025

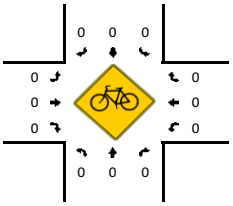
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

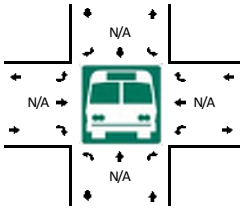


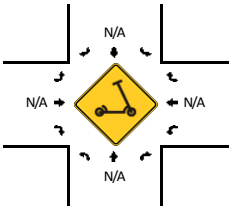


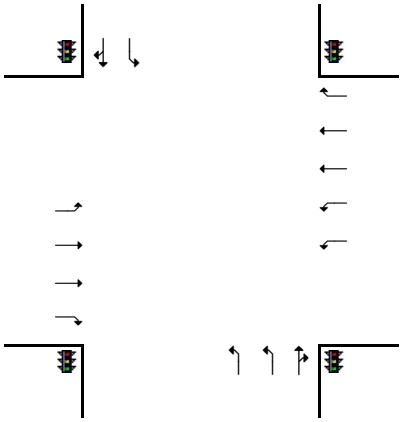
TRUE DATA TO IMPROVE MOBILITY











15-Min Count Period Beginning At	Town Centre Blvd/Walmart Dwy (Northbound)				Town Centre Blvd/Walmart Dwy (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	53	3	73	0	15	2	5	0	9	270	58	0	31	167	12	2	700	
4:15 PM	38	1	62	0	15	2	4	0	11	298	38	1	19	204	19	1	713	
4:30 PM	45	4	40	0	18	6	4	0	10	304	50	2	31	202	18	0	734	
4:45 PM	24	3	40	0	21	3	2	0	5	377	62	3	34	241	14	4	833	2980
5:00 PM	38	5	54	0	21	1	4	0	5	333	64	0	45	229	16	4	819	3099
5:15 PM	43	3	55	0	22	5	3	0	3	336	55	3	29	230	15	3	805	3191
5:30 PM	40	1	75	0	11	1	2	0	12	320	49	2	47	230	14	4	808	3265
5:45 PM	35	5	56	0	9	3	4	0	6	289	45	1	45	198	10	3	709	3141

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	96	12	160	0	84	12	8	0	20	1508	248	12	136	964	56	16	3332
Heavy Trucks	0	0	0		4	0	0		0	20	0		0	44	0		68
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:20 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

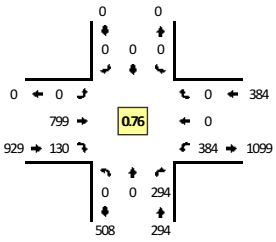
Type of peak hour being reported: Intersection Peak

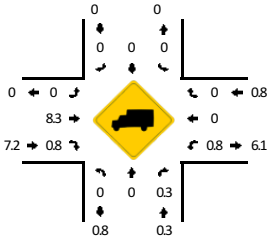
Method for determining peak hour: Total Entering Volume

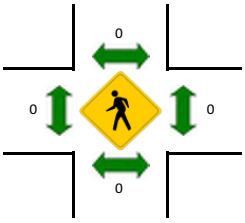
LOCATION: Financial Dr/White Pine Dr -- US 70
CITY/STATE: Johnston, NC

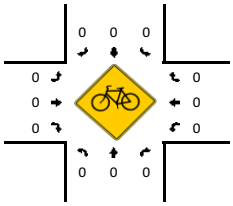
QC JOB #: 16875503
DATE: Wed, Jan 8 2025

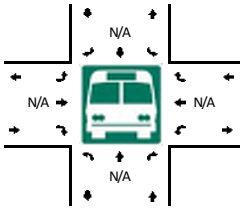
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

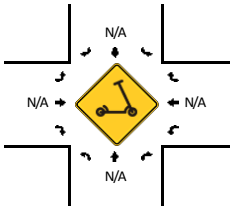












15-Min Count Period Beginning At	Financial Dr/White Pine Dr (Northbound)				Financial Dr/White Pine Dr (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	15	0	0	0	0	0	0	142	7	1	39	0	0	0	204	
7:15 AM	0	0	15	0	0	0	0	0	0	185	24	0	72	0	0	0	296	
7:30 AM	0	0	92	0	0	0	0	0	0	206	32	0	126	0	0	1	457	
7:45 AM	0	0	113	0	0	0	0	0	0	201	66	0	144	0	0	3	527	1484
8:00 AM	0	0	74	0	0	0	0	0	0	207	8	0	36	0	0	2	327	1607
8:15 AM	0	0	30	0	0	0	0	0	0	164	3	0	31	0	0	1	229	1540
8:30 AM	0	0	28	0	0	0	0	0	0	153	3	0	34	0	0	1	219	1302
8:45 AM	0	0	23	0	0	0	0	0	0	154	1	0	54	0	0	0	232	1007

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	452	0	0	0	0	0	0	804	264	0	576	0	0	12	2108
Heavy Trucks	0	0	0		0	0	0		0	68	4		0	0	0		72
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:20 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

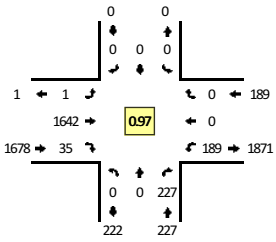
Type of peak hour being reported: Intersection Peak

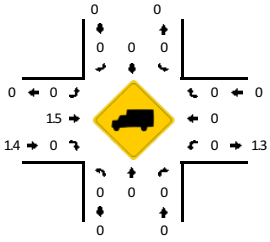
Method for determining peak hour: Total Entering Volume

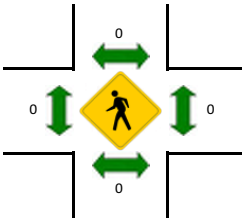
LOCATION: Financial Dr/White Pine Dr -- US 70
CITY/STATE: Johnston, NC

QC JOB #: 16875504
DATE: Wed, Jan 8 2025

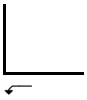
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

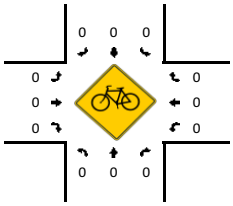


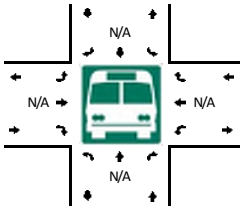


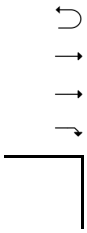


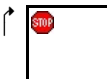


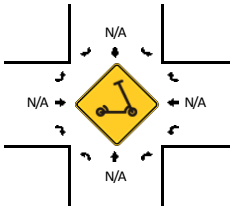












15-Min Count Period Beginning At	Financial Dr/White Pine Dr (Northbound)				Financial Dr/White Pine Dr (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	67	0	0	0	0	0	0	351	11	0	34	0	0	2	465	
4:15 PM	0	0	59	0	0	0	0	0	0	371	5	0	44	0	0	1	480	
4:30 PM	0	0	50	0	0	0	0	0	0	366	1	1	42	0	0	0	460	
4:45 PM	0	0	56	0	0	0	0	0	0	433	10	0	40	0	0	0	539	1944
5:00 PM	0	0	58	0	0	0	0	0	0	406	8	1	49	0	0	0	522	2001
5:15 PM	0	0	56	0	0	0	0	0	0	396	10	0	53	0	0	2	517	2038
5:30 PM	0	0	57	0	0	0	0	0	0	407	7	0	45	0	0	0	516	2094
5:45 PM	0	0	64	0	0	0	0	0	0	351	5	1	30	0	0	2	453	2008

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	224	0	0	0	0	0	0	1732	40	0	160	0	0	0	2156
Heavy Trucks	0	0	0		0	0	0		0	20	0		0	0	0		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:20 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

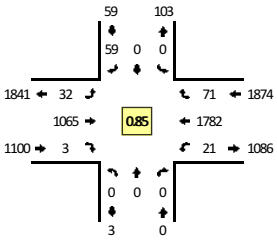
Type of peak hour being reported: Intersection Peak

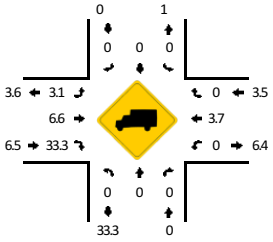
Method for determining peak hour: Total Entering Volume

LOCATION: Gateway Dr -- US 70
CITY/STATE: Clayton, NC

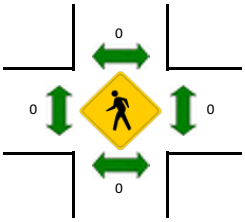
QC JOB #: 16875505
DATE: Wed, Jan 8 2025

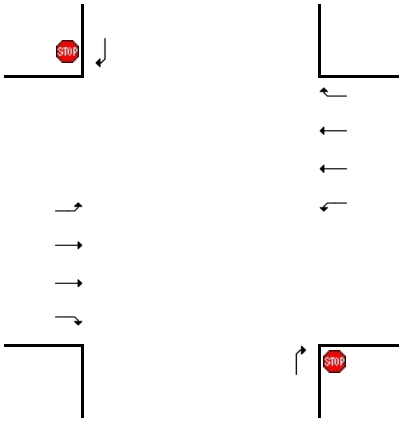
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

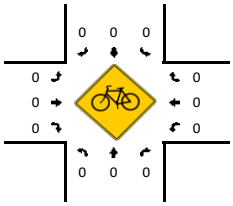


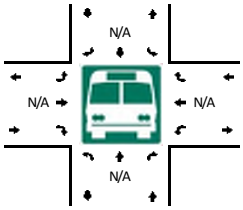


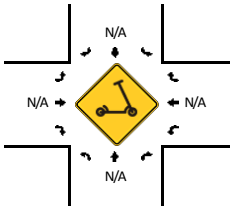
TRUE DATA TO IMPROVE MOBILITY











15-Min Count Period Beginning At	Gateway Dr (Northbound)				Gateway Dr (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	5	0	5	143	0	0	0	427	7	3	590	
7:15 AM	0	0	0	0	0	0	14	0	5	203	0	0	0	470	15	4	711	
7:30 AM	0	0	0	0	0	0	16	0	5	281	0	0	0	451	16	1	770	
7:45 AM	0	0	0	0	0	0	11	0	10	309	2	0	0	522	28	5	887	2958
8:00 AM	0	0	0	0	0	0	18	0	12	272	1	0	0	339	12	11	665	3033
8:15 AM	0	0	0	0	0	0	11	0	4	193	0	0	0	367	8	3	586	2908
8:30 AM	0	0	0	0	0	0	11	0	6	179	0	0	2	359	11	1	569	2707
8:45 AM	0	0	0	0	0	0	9	0	7	169	0	0	0	353	11	4	553	2373

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	44	0	40	1236	8	0	0	2088	112	20	3548
Heavy Trucks	0	0	0		0	0	0		0	72	4		0	52	0		128
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:20 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

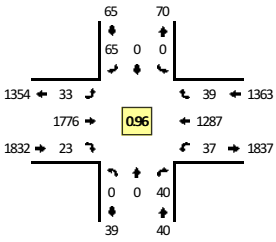
Type of peak hour being reported: Intersection Peak

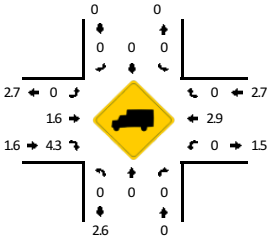
Method for determining peak hour: Total Entering Volume

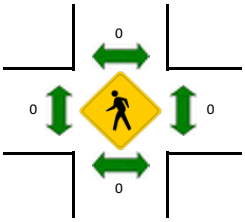
LOCATION: Gateway Dr -- US 70
CITY/STATE: Clayton, NC

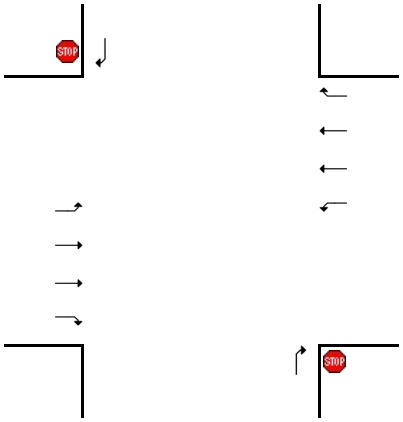
QC JOB #: 16875506
DATE: Wed, Jan 8 2025

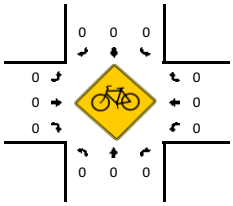
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

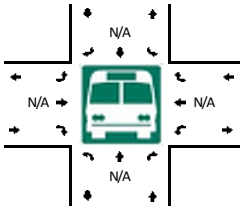


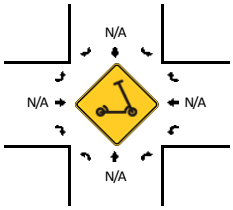












15-Min Count Period Beginning At	Gateway Dr (Northbound)				Gateway Dr (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	8	0	0	0	12	0	5	416	7	1	1	243	4	6	703	
4:15 PM	0	0	13	0	0	0	14	0	5	428	6	0	7	273	4	6	756	
4:30 PM	0	0	9	0	0	0	8	0	7	406	3	0	3	298	10	2	746	
4:45 PM	0	0	6	0	0	0	12	0	9	464	6	0	3	340	11	6	857	3062
5:00 PM	0	0	17	0	0	0	14	0	8	462	9	1	5	316	8	6	846	3205
5:15 PM	0	0	10	0	0	0	14	0	5	425	4	1	6	326	13	4	808	3257
5:30 PM	0	0	7	0	0	0	25	0	9	425	4	0	2	305	7	5	789	3300
5:45 PM	0	0	5	0	0	0	11	0	4	443	6	2	4	267	1	6	749	3192

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	24	0	0	0	48	0	36	1856	24	0	12	1360	44	24	3428
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	44	0		68
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:20 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

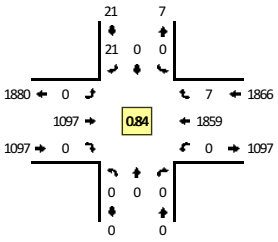
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

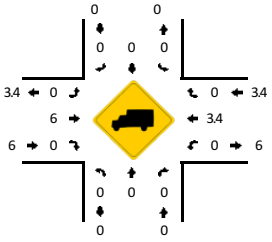
LOCATION: Yates Dr -- US 70
CITY/STATE: Johnston, NC

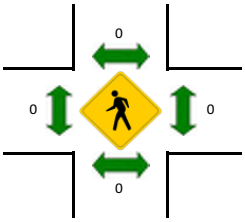
QC JOB #: 16875507
DATE: Wed, Jan 8 2025

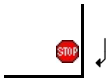
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

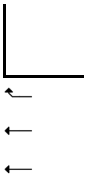


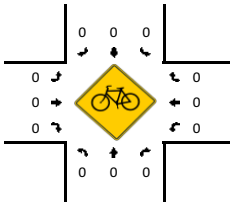
TRUE DATA TO IMPROVE MOBILITY

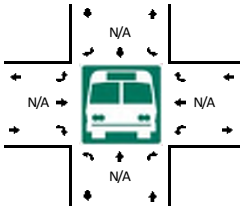


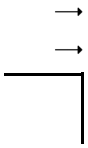




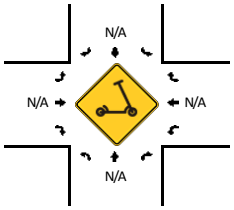












15-Min Count Period Beginning At	Yates Dr (Northbound)				Yates Dr (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	3	0	0	148	0	0	0	435	0	0	586	
7:15 AM	0	0	0	0	0	0	4	0	0	204	0	0	0	486	0	0	694	
7:30 AM	0	0	0	0	0	0	2	0	0	282	0	0	0	467	1	0	752	
7:45 AM	0	0	0	0	0	0	5	0	0	326	0	0	0	549	3	0	883	2915
8:00 AM	0	0	0	0	0	0	10	0	0	285	0	0	0	357	3	0	655	2984
8:15 AM	0	0	0	0	0	0	3	0	0	196	0	0	0	375	1	0	575	2865
8:30 AM	0	0	0	0	0	0	2	0	0	181	0	0	0	375	2	0	560	2673
8:45 AM	0	0	0	0	0	0	4	0	0	169	0	0	0	359	1	0	533	2323

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	20	0	0	1304	0	0	0	2196	12	0	3532
Heavy Trucks	0	0	0		0	0	0		0	72	0		0	56	0		128
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:20 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

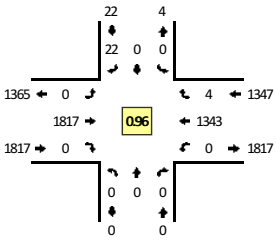
Type of peak hour being reported: Intersection Peak

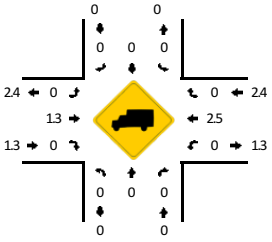
Method for determining peak hour: Total Entering Volume

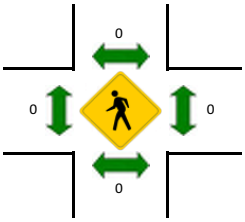
LOCATION: Yates Dr -- US 70
CITY/STATE: Johnston, NC

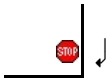
QC JOB #: 16875508
DATE: Wed, Jan 8 2025

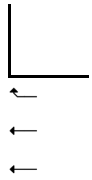
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

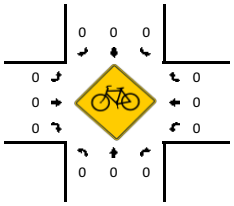


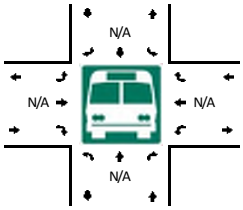


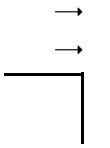




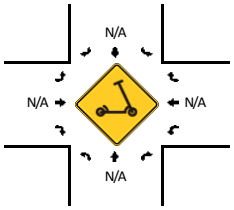












15-Min Count Period Beginning At	Yates Dr (Northbound)				Yates Dr (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	7	0	0	430	0	0	0	249	0	0	686	
4:15 PM	0	0	0	0	0	0	6	0	0	444	0	0	0	285	0	0	735	
4:30 PM	0	0	0	0	0	0	2	0	0	421	0	0	0	314	0	0	737	
4:45 PM	0	0	0	0	0	0	7	0	0	470	0	0	0	352	2	0	831	2989
5:00 PM	0	0	0	0	0	0	5	0	0	481	0	0	0	330	1	0	817	3120
5:15 PM	0	0	0	0	0	0	6	0	0	424	0	0	0	344	0	0	774	3159
5:30 PM	0	0	0	0	0	0	4	0	0	442	0	0	0	317	1	0	764	3186
5:45 PM	0	0	0	0	0	0	7	0	0	444	0	0	0	270	1	0	722	3077

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	28	0	0	1880	0	0	0	1408	8	0	3324
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	36	0		60
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:20 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

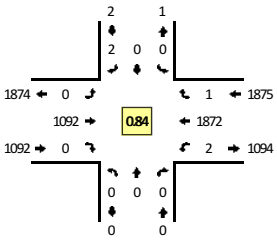
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

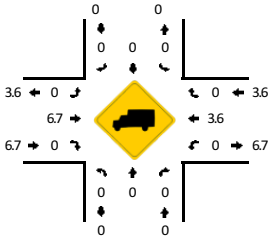
LOCATION: Medical Park Pl -- US 70
CITY/STATE: Clayton, NC

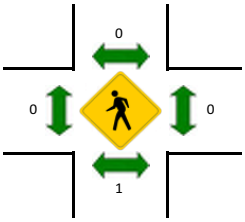
QC JOB #: 16875509
DATE: Wed, Jan 8 2025

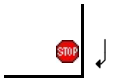
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

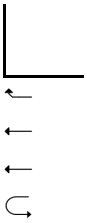


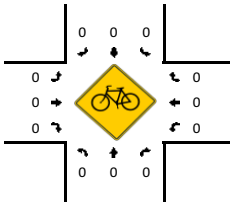
TRUE DATA TO IMPROVE MOBILITY

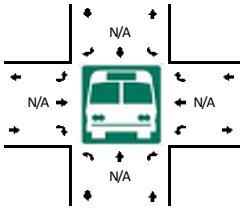


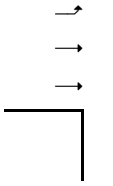




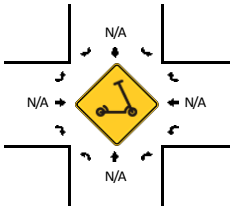












15-Min Count Period Beginning At	Medical Park Pl (Northbound)				Medical Park Pl (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	147	0	0	0	436	0	0	583	
7:15 AM	0	0	0	0	0	0	1	0	0	203	0	0	0	483	0	1	688	
7:30 AM	0	0	0	0	0	0	0	0	0	277	0	0	0	476	1	0	754	
7:45 AM	0	0	0	0	0	0	1	0	0	329	0	0	0	550	0	1	881	2906
8:00 AM	0	0	0	0	0	0	0	0	0	283	0	0	0	363	0	0	646	2969
8:15 AM	0	0	0	0	0	0	0	0	0	198	0	0	0	372	1	0	571	2852
8:30 AM	0	0	0	0	0	0	0	0	0	180	0	0	0	382	0	0	562	2660
8:45 AM	0	0	0	0	0	0	0	0	0	174	0	0	0	356	0	1	531	2310

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	4	0	0	1316	0	0	0	2200	0	4	3524
Heavy Trucks	0	0	0		0	0	0		0	88	0		0	56	0		144
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:21 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

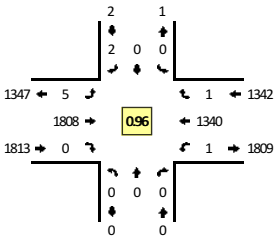
Type of peak hour being reported: Intersection Peak

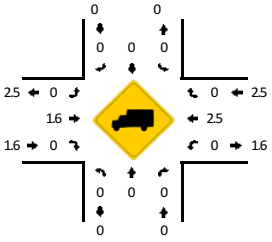
Method for determining peak hour: Total Entering Volume

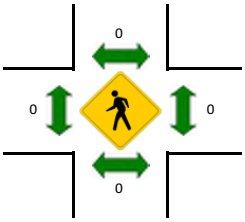
LOCATION: Medical Park Pl -- US 70
CITY/STATE: Clayton, NC

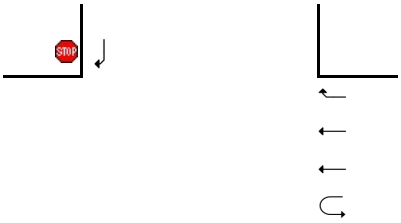
QC JOB #: 16875510
DATE: Wed, Jan 8 2025

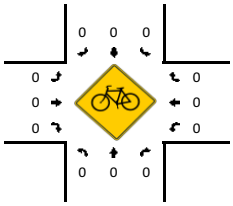
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

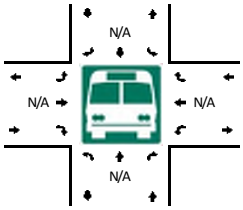




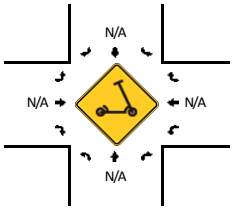












15-Min Count Period Beginning At	Medical Park Pl (Northbound)				Medical Park Pl (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	7	426	0	1	0	250	0	1	685	
4:15 PM	0	0	0	0	0	0	0	0	3	443	0	1	0	285	0	0	732	
4:30 PM	0	0	0	0	0	0	1	0	0	413	0	0	0	312	2	0	728	
4:45 PM	0	0	0	0	0	0	0	0	0	463	0	1	0	355	0	0	819	2964
5:00 PM	0	0	0	0	0	0	1	0	0	468	0	1	0	334	0	0	804	3083
5:15 PM	0	0	0	0	0	0	1	0	0	423	0	1	0	336	0	0	761	3112
5:30 PM	0	0	0	0	0	0	0	0	0	454	0	2	0	315	1	1	773	3157
5:45 PM	0	0	0	0	0	0	1	0	0	460	0	2	0	267	0	0	730	3068

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	1852	0	4	0	1420	0	0	3276
Heavy Trucks	0	0	0		0	0	0		0	28	0		0	44	0		72
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:21 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

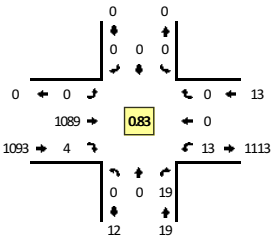
Type of peak hour being reported: Intersection Peak

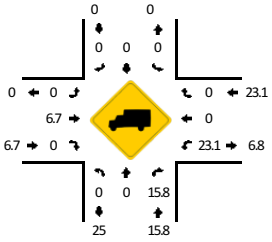
Method for determining peak hour: Total Entering Volume

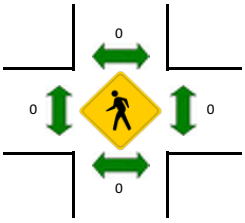
LOCATION: Fernwood Dr -- US 70
CITY/STATE: Johnston, NC

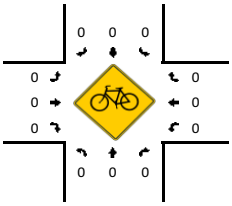
QC JOB #: 16875511
DATE: Wed, Jan 8 2025

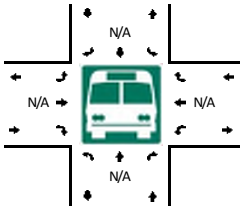
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

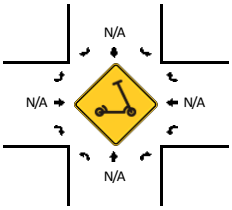


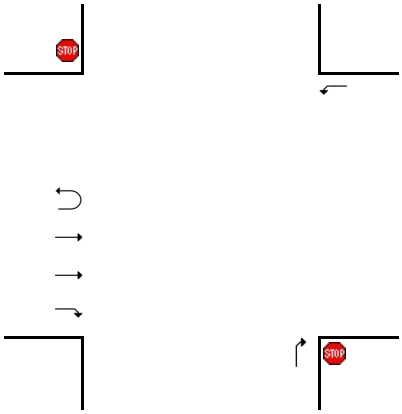












15-Min Count Period Beginning At	Fernwood Dr (Northbound)				Fernwood Dr (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	4	0	0	0	0	0	0	150	0	0	1	0	0	2	157	
7:15 AM	0	0	4	0	0	0	0	0	0	193	0	0	2	0	0	2	201	
7:30 AM	0	0	4	0	0	0	0	0	0	283	0	0	0	0	0	0	287	
7:45 AM	0	0	7	0	0	0	0	0	0	326	0	0	4	0	0	0	337	982
8:00 AM	0	0	2	0	0	0	0	0	0	280	1	0	2	0	0	3	288	1113
8:15 AM	0	0	6	0	0	0	0	0	0	200	3	0	2	0	0	2	213	1125
8:30 AM	0	0	2	0	0	0	0	0	0	174	1	0	0	0	0	3	180	1018
8:45 AM	0	0	1	0	0	0	0	0	0	174	0	0	4	0	0	0	179	860

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	28	0	0	0	0	0	0	1304	0	0	16	0	0	0	1348
Heavy Trucks	0	0	8		0	0	0		0	80	0		8	0	0		96
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:21 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

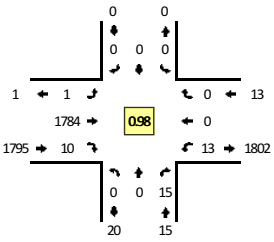
Type of peak hour being reported: Intersection Peak

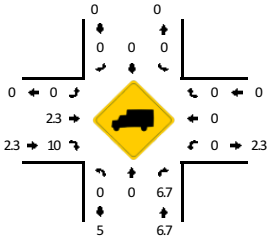
Method for determining peak hour: Total Entering Volume

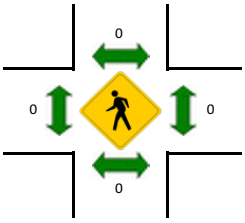
LOCATION: Fernwood Dr -- US 70
CITY/STATE: Johnston, NC

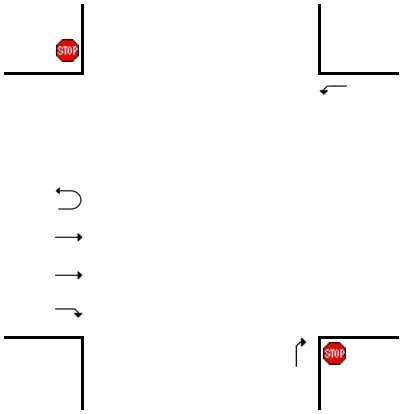
QC JOB #: 16875512
DATE: Wed, Jan 8 2025

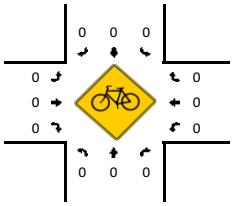
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:45 PM -- 6:00 PM

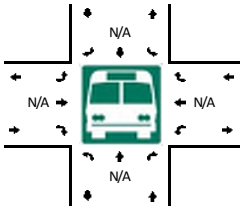


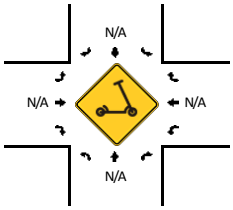












15-Min Count Period Beginning At	Fernwood Dr (Northbound)				Fernwood Dr (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	2	0	0	0	0	0	0	421	3	0	3	0	0	5	434	
4:15 PM	0	0	9	0	0	0	0	0	0	438	1	0	1	0	0	4	453	
4:30 PM	0	0	3	0	0	0	0	0	0	414	1	0	5	0	0	0	423	
4:45 PM	0	0	1	0	0	0	0	0	0	447	0	0	2	0	0	0	450	1760
5:00 PM	0	0	6	0	0	0	0	0	0	428	3	1	3	0	0	2	443	1769
5:15 PM	0	0	5	0	0	0	0	0	0	447	1	0	6	0	0	0	459	1775
5:30 PM	0	0	2	0	0	0	0	0	0	452	4	0	0	0	0	0	458	1810
5:45 PM	0	0	2	0	0	0	0	0	0	457	2	0	1	0	0	1	463	1823

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	8	0	0	0	0	0	0	1828	8	0	4	0	0	4	1852
Heavy Trucks	0	0	0		0	0	0		0	68	0		0	0	0		68
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:21 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

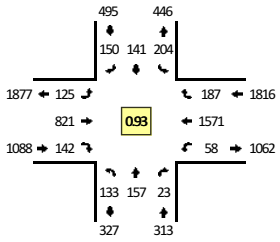
Type of peak hour being reported: Intersection Peak

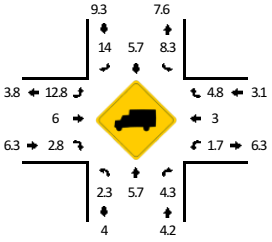
Method for determining peak hour: Total Entering Volume

LOCATION: Shotwell Rd -- US 70
CITY/STATE: Clayton, NC

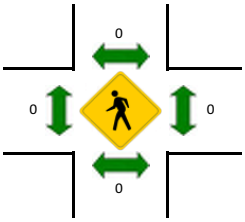
QC JOB #: 16875513
DATE: Wed, Jan 8 2025

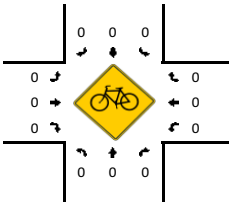
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

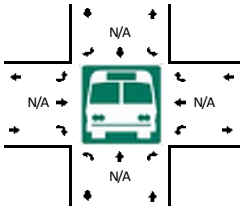


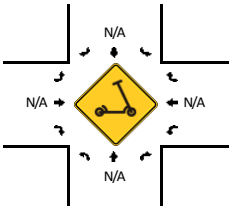


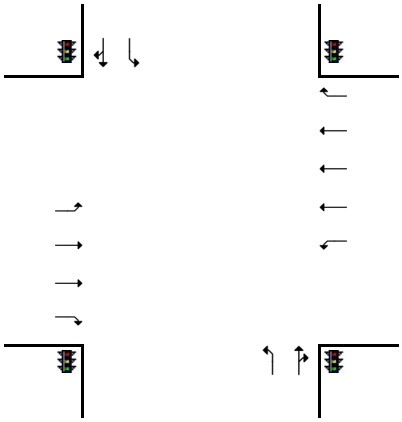
TRUE DATA TO IMPROVE MOBILITY











15-Min Count Period Beginning At	Shotwell Rd (Northbound)				Shotwell Rd (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	41	35	4	0	48	21	32	0	17	131	7	7	14	347	43	6	753	
7:15 AM	32	26	3	0	45	28	44	0	11	150	12	5	7	399	55	4	821	
7:30 AM	37	42	6	0	60	35	31	0	20	208	46	3	14	430	57	0	989	
7:45 AM	37	51	5	0	52	40	42	0	23	234	48	1	5	414	46	1	999	3562
8:00 AM	27	38	9	0	47	38	33	0	48	229	36	14	18	328	29	9	903	3712
8:15 AM	44	36	7	0	55	40	31	0	23	155	16	2	10	258	34	8	719	3610
8:30 AM	33	28	1	0	48	38	29	0	14	161	19	0	15	329	35	7	757	3378
8:45 AM	33	39	13	0	49	39	33	0	13	135	29	4	14	321	48	5	775	3154

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	148	204	20	0	208	160	168	0	92	936	192	4	20	1656	184	4	3996
Heavy Trucks	8	16	0		24	4	8		16	56	8		0	40	0		180
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:21 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

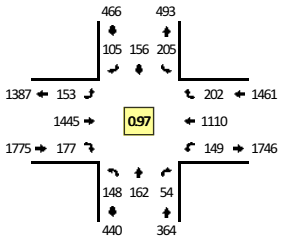
Type of peak hour being reported: Intersection Peak

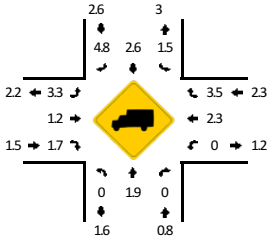
Method for determining peak hour: Total Entering Volume

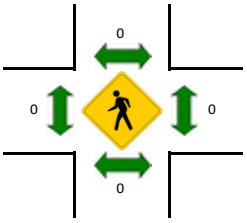
LOCATION: Shotwell Rd -- US 70
CITY/STATE: Clayton, NC

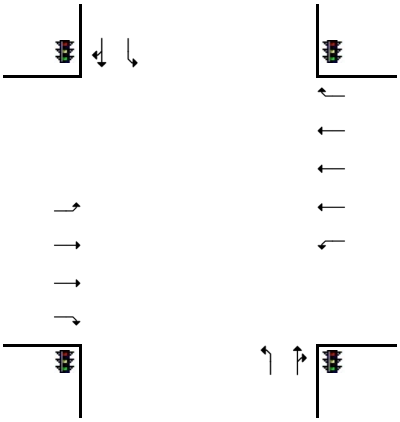
QC JOB #: 16875514
DATE: Wed, Jan 8 2025

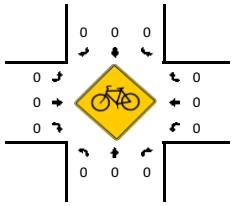
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

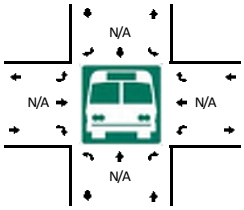


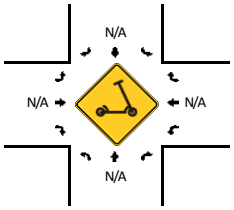












15-Min Count Period Beginning At	Shotwell Rd (Northbound)				Shotwell Rd (Southbound)				US 70 (Eastbound)				US 70 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	34	43	10	0	48	30	17	0	31	358	53	7	20	225	38	4	918	
4:15 PM	32	41	16	0	60	51	31	0	32	338	51	4	25	219	47	14	961	
4:30 PM	32	43	16	0	56	38	30	0	43	295	39	8	36	268	36	8	948	
4:45 PM	44	42	18	0	44	33	21	0	34	350	50	6	22	300	61	19	1044	3871
5:00 PM	25	32	13	0	51	36	26	0	32	376	42	3	29	309	50	8	1032	3985
5:15 PM	35	37	7	0	54	46	35	0	26	374	43	8	27	247	44	10	993	4017
5:30 PM	44	51	16	0	56	41	23	0	37	345	42	7	29	254	47	5	997	4066
5:45 PM	30	46	15	0	50	43	25	0	32	338	50	7	38	224	52	5	955	3977

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	176	168	72	0	176	132	84	0	136	1400	200	24	88	1200	244	76	4176
Heavy Trucks	0	4	0		0	0	4		4	16	8		0	28	4		68
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/15/2025 10:21 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

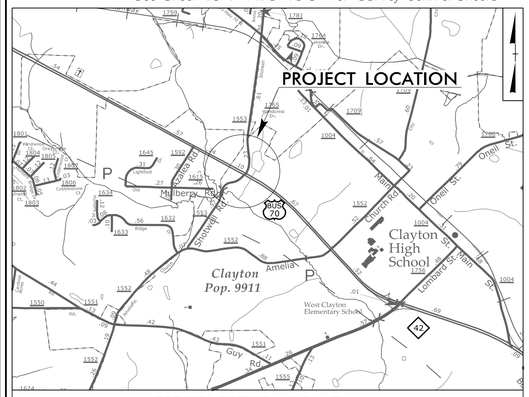
Appendix C:
NCDOT HL-0127 (Shotwell Road) Roadway Improvement Plans

09/08/99

TIP PROJECT: HL–0127

CONTRACT: DD00457

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols
See Sheet 1C-1 Thru 1C-3 For Survey Control Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

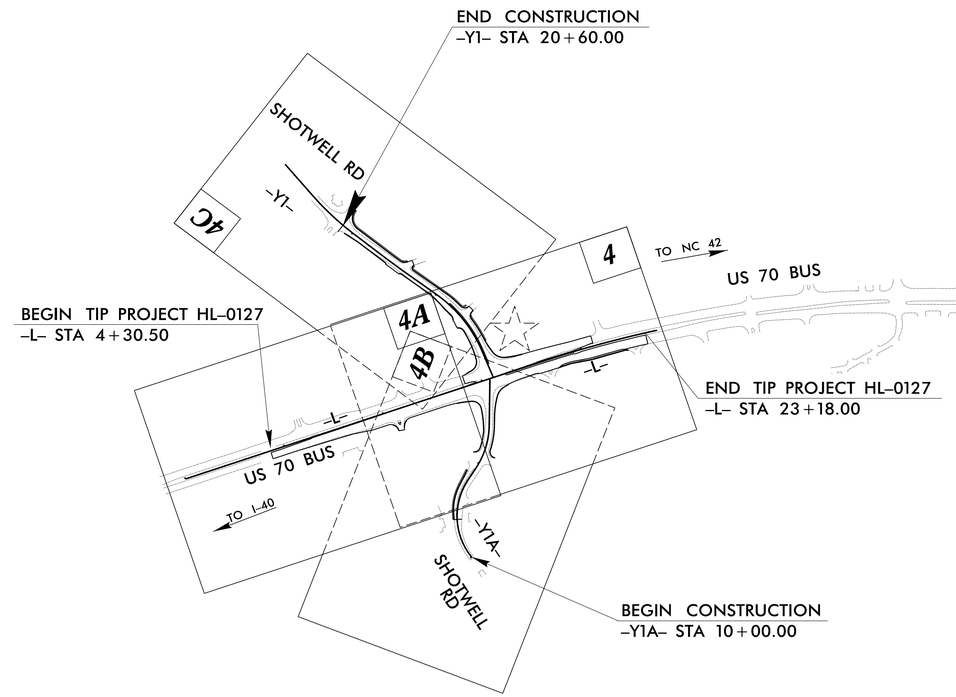
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HL-0127	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
HL–0127		Y1, Y1A (CONST.)

UPDATED SIGNAL

LOCATION: US–70 BUSINESS AT SR 1553 (SHOTWELL ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND SIGNAL,





DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2015 = 36000

K = %
D = %
T = % *
V = 50 MPH

* TTST= DUAL=
FUNC CLASS =
OTHER PRINCIPAL ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT 80074 = 0.357 MILES

TOTAL LENGTH TIP PROJECT 80074 = 0.357 MILES

Prepared In the Office of:

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:
JULY 16, 2024

RAJIT RAMKUMAR, PE
PROJECT ENGINEER

WILLIAM POPE, PE
PROJECT DESIGN ENGINEER

ADDISON GAINEY, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 035621 ENGINEER RAJIT RAMKUMAR P.E.

SIGNATURE:

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 036810 ENGINEER KAITY TAMBURRINO P.E.

SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

3/13/2024
J:\NW_Projects\HL-0127\Roadway\Design\HL-0127_Rdy_tsh.dgn
jlsmith

8/17/99

-L-	-Y1-	-Y1A-
PI Sta 27+34.76	PI Sta 13+27.21	PI Sta 15+86.74
Δ = 18° 58' 02.4" (RT)	Δ = 31° 35' 40.3" (LT)	Δ = 32° 08' 16.6" (LT)
D = 1° 00' 00.0"	D = 8° 48' 53.0"	D = 14° 19' 26.2"
L = 1,896.73'	L = 358.43'	L = 224.37'
T = 957.12'	T = 183.90'	T = 115.22'
R = 5,729.58'	R = 650.00'	R = 400.00'
SE = EXIST.	SE = SEE PLANS	SE = EXIST.

NAD 83/NA 2011

PROJECT REFERENCE NO.	SHEET NO.
HL-0127	4
R/W SHEET NO.	W-5704A&B 4

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 036810 ENGINEER MATT RAMMING

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 35621 ENGINEER ANDREW M

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MATCHLINE -Y1- STA. 14+00.00 SEE SHEET 4C

MATCHLINE -L STA. 11+00.00 SEE SHEET 4A

MATCHLINE -Y1A- STA. 16+50.00 SEE SHEET 4B

EXECUTIVE DRIVE

ENTERPRISE DRIVE

7 PECO TIRE STORE-CLAYTON, LLC
DB 4740 PG 928
MB 65 PG 232

8 WELLS FARGO
DB 2637 PG 945
MB 62 PG 450

5 BARKER FAMILY PROPERTIES, LLLP
DB 3716 PG 155
MB 48 PG 214
MB 49 PG 371

UNITED ENERGY, INC.
DB 1589 PG 800
MB 49 PG 371

2 M. CLAYTON REALTY ASSOCIATES, LLC
DB 3985 PG 784
MB 56 PG 54

4 PNC BANK NA
DB 2030 PG 69

BEGIN 5' SIDEWALK -Y1- STA.11+80.00 RT.

-L- POT Sta. 15+57.73
-Y1- POT Sta. 10+00.00

END 2'-6" C&G -L- STA.17+24.87 LT.

TIE TO EXISTING STORM DRAINAGE SYSTEM -Y1- PC Sta. 11+43.31

BEGIN 2'-6" C&G -L- STA.14+41.92

BEGIN 2'-6" C&G -L- STA.13+50.74 RT.

SEE INSET 15+00

DO NOT DISTURB CVS SIGN -Y1A- PT Sta. 16+95.89

-L- PC Sta. 17+77.63

END 2'-6" C&G -L- STA.16+14.80 RT.

-L- POT Sta.15+40.43
-Y1A- POT Sta. 19+24.50

BEGIN EXPRESSWAY GUTTER TIE TO EXISTING 2'-6" C & G -L- STA.18+73.04 RT.

END EXPRESSWAY GUTTER TIE TO EXISTING 2'-6" C & G -L- STA.22+19.92 RT.

END TIP PROJECT HL-0127 -L- STA.23+18.00

100' MEDIAN TAPER

150' TAPER

100' TAPER

150' FULL LANE

600' LANE TRANSITION

435' FULL LANE

130' FULL LANE

350' FULL LANE

440' R

420' R

DETAIL 1
FALSE SUMP (Not to Scale)

Median Ditch — 9" — 2' — 20' — GI (4ft) — L (See Chart Below) — S

S=Ditch Slope — ℄ Proposed Ditch

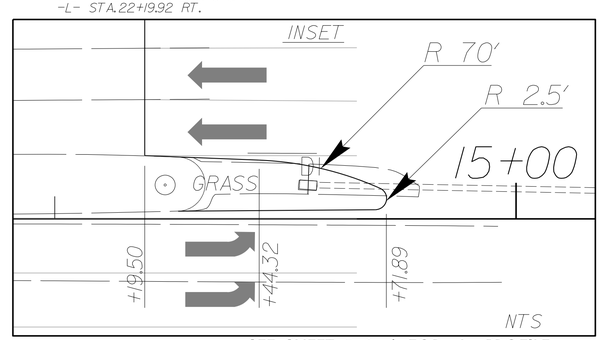
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM STA. 21+57 TO STA. 21+97 -L- MED

DETAIL 3
SPECIAL 'V' DITCH (Not to Scale)

Natural Ground — 4:1 — D — 4:1 or Flatter — Front Ditch Slope — Min. D=1.0 Ft.

FROM STA. 11+50 TO STA. 14+00 -L- RT



SEE SHEET 5 & 6 FOR -L- PROFILE
SEE SHEET 7 FOR -Y1A- & -Y1- PROFILE

3/13/2024
W-5704A&B_Rdy_psh_4.dgn
jdbrewer

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
HL-0127	4A
R/W SHEET NO.	W-5704B 4A

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 036810 ENGINEER KEITH R. MANUMAN

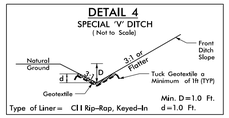
HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 35621 ENGINEER ANDREW M. WELLS

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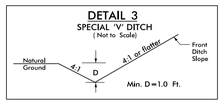
DETAIL 4
SPECIAL 'V' DITCH
(Not to Scale)



Type of Liner= CI I Rip-Rap, Keyed-In

FROM STA. 6+66 TO STA. 7+50 -L- RT

DETAIL 3
SPECIAL 'V' DITCH
(Not to Scale)



FROM STA. 7+50 TO STA. 10+29 -L- RT

CULVERT #1
ONE BARREL

	NORTH	EAST	ELEV.
CUL1	695141.00	2153723.80	261.40
CUL2	695138.39	2153728.66	261.42
CE1	695139.15	2153726.60	270.42
HW1	695139.44	2153726.47	272.11
CUL3	694979.87	2153683.32	259.45
CUL4	694976.85	2153688.88	259.45
CE2	694978.95	2153685.60	268.46
HW2	694978.76	2153685.57	270.14

-L- POT Sta. 0+00.00

BEGIN TIP PROJECT HL-0127
-L- STA. 4+30.50

STALLINGS MILL APARTMENTS, LLC
DB 4424 PG 368
MB 69 PG 144
MB 84 PG 241

-L- US 70 BUS.

MATCHLINE -L- STA. 11+00.00
SEE SHEET 4

TIE TO EXISTING GUARDRAIL
-L- STA. 4+30.50 RT.

1102 COLLAR AND EXTEND TIE TO EXISTING STORM DRAINAGE SYSTEM

1103 REMOVE 20 LF

1110 REMOVE

CL 'I' RIP RAP EST. 3 TONS EST. 7 SYCF

SPECIAL 'V' DITCH w/CL 'I' RIP RAP SEE DETAIL 4

SPECIAL 'V' DITCH SEE DETAIL 3

100' TAPER

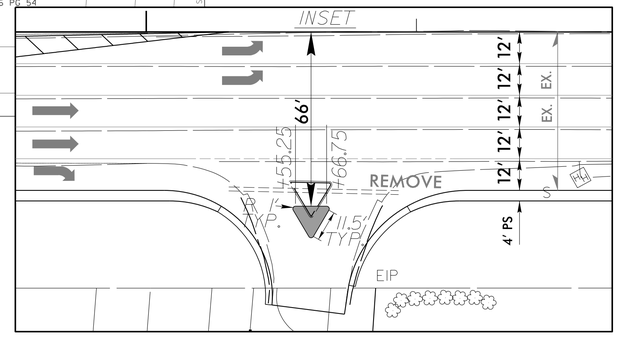
75' FULL LANE

400' LANE TRANSITION

200' TAPER

435' FULL LANE

SEE INSET



SEE SHEET 5 FOR -L- PROFILE

JAMES W. CASH
DB 552 PG 347

TEDDY FOSTER BEDDINGFIELD
DB 528 PG 427
DB 895 PG 538

SHOTWELL 70 PARTNERS, LLC & CONWAY CENTRE, LLC
DB 3616 PG 920
MB 77 PG 495-496
MB 50 PG 160

HEALTH PROPERTIES INVESTMENTS, INC.
DB 4286 PG 499
MB 77 PG 495-496

SHOTWELL 70 PARTNERS, LLC & CONWAY CENTRE, LLC
DB 3616 PG 920
DB 1933 PG 754
MB 77 PG 495-496
MB 69 PG 144
MB 56 PG 54

BALDIES RESTAURANT GROUP, LLC
DB 4359 PG 83
PB 77 PG 495
PB 77 PG 496

Earthlink Business LLC

Johnston County Public Utility

3/12/2024
W-5704A&B_Rdy_psh_4a.dgn
jbaucom
USER:jbaucom

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
HL-0127	4B
R/W SHEET NO.	W-5704B 4B

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036810 WYATT RANKIN IV

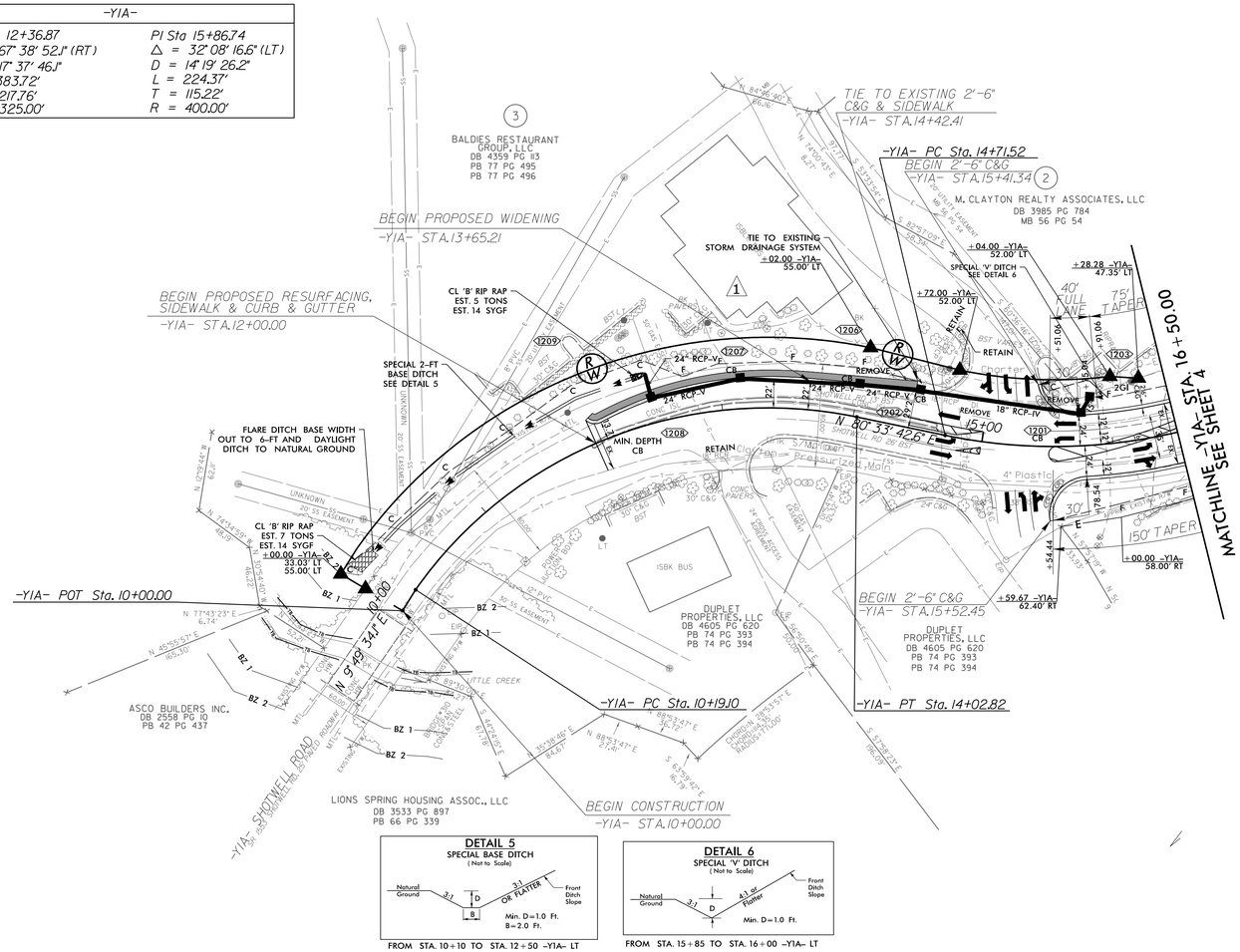
HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35621 ANDREW M. HUNTER

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-Y1A-	
PI Sta 12+36.87	PI Sta 15+86.74
Δ = 67° 38' 52.1" (RT)	Δ = 32° 08' 16.6" (LT)
D = 17° 37' 46.1"	D = 14° 19' 26.2"
L = 383.72'	L = 224.37'
T = 217.76'	T = 115.22'
R = 325.00'	R = 400.00'

NAD 83 NA 2011



DETAIL 5
SPECIAL BASE DITCH
(Not to Scale)

FROM STA. 10+10 TO STA. 12+50 -Y1A- LT

DETAIL 6
SPECIAL 'V' DITCH
(Not to Scale)

FROM STA. 15+85 TO STA. 16+00 -Y1A- LT

SEE SHEET 7 FOR -Y1A- PROFILE

3/12/2024
W-5704A&B_Rdy_psh_4b.dgn
USER:Brad.Hall

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
HL-0127	4C
R/W SHEET NO.	W-5704B 4C

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036810 KEITH RAMELMAN

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35621 ANDREW M HAMMOND

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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Fax:919.789.9591
License: F-0453

NAD 83/NA 2011

MATCHLINE -Y1- STA. 14+00.00 SEE SHEET 4

6
TRIARC FOOD SYSTEMS INC. 23
DB 1348 PG 626
MB 48 PG 214
MB 49 PG 371

STALLINGS MILL APARTMENTS, LLC
DB 4424 PG 368
MB 69 PG 144
MB 84 PG 241

-Y1- PT Sta. 15+01.74
-Y1- PC Sta. 16+47.93
TIE TO EXIST. 2'-6" C&G -Y1- STA. 20+31.58
END CONSTRUCTION -Y1- STA. 20+60.00
-Y1- POT Sta. 24+69.12

+62.00 -Y1- 102.00' LT
+65.00 -Y1- 85.00' LT
+87.00 -Y1- 105.00' LT
+88.00 -Y1- 88.00' LT
+65.00 -Y1- 39.73' LT
+47.00 -Y1- 31.76' LT
+26.00 -Y1- 50.00' LT 61.93' LT

PUE
100' TAPER
33.75' INC.
46.5' INC TYP
100' FULL LANE
RETAIN
EXISTING R/W

15" RCP-IV
96 str FO
12" PVC
Century Link Marker
Town of Clayton Link S/M 625
SR 1553 SHOTWELL RD 105' BST
SR 1553 SHOTWELL RD 85' BST VARIES
Link S/M, Town of Clayton Fiber Optic Cable

15 N 6° 39' 25.3" W
N 4° 37' 42.9" W
N 6° 54' 41.7" E

REMOVE JB AND 6 LF OF 15" RCP - REPLACE W/ MIN. DEPTH CB & TIE-TO EXISTING STORM DRAINAGE SYSTEM.

1310 CB
1311
1312
1302
1303 CB

+56.00 -Y1- 38.00' RT
+00.00 -Y1- 54.00' RT
+60.00 -Y1- 59.00' RT
+41.00 -Y1- 42.00' RT
+86.00 -Y1- 76.00' RT
+54.00 -Y1- 38.50' RT
+61.00 -Y1- 46.00' RT
+39.00 -Y1- 38.50' RT
+75.00 -Y1- 45.00' RT
+95.00 -Y1- 38.50' RT
+95.00 -Y1- 51.50' RT
+43.53 -Y1- 94.00' RT
+30.00 -Y1- 68.00' RT

MTS UNDER CONSTRUCTION
TIE TO EXISTING STORM DRAINAGE SYSTEM
TIE TO EXIST. 2'-6" C&G

-Y1- PC Sta. 19+82.10
-Y1- PT Sta. 18+24.94
-Y1- PT Sta. 22+69.12

7
PECO TIRE STORE-CLAYTON, LLC
DB 4740 PG 928
MB 65 PG 232

9
LA COCINA #3, INC.
DB 5113 PG 589
MB 83 PG 470

TREE HOUSE PROPERTIES, LLC
DB 3358 PG 947
MB 70 PG 184

LEE BROTHERS RENTAL
DB 3344 PG 564
MB 84 PG 113

20' DRAINAGE EASEMENT MB 65 PG 232
20' UTILITY EASEMENT MB 70 PG 184
20' PUBLIC UTILITY EASEMENT MB 84 PG 241
VARIABLE WIDTH PUBLIC UTILITY EASEMENT MB 84 PG 241

NOTE:

PARCEL #9 "LA COCINA #3, INC." WAS UNDER CONSTRUCTION AT THE TIME OF ROADWAY PLAN DEVELOPMENT. FIELD SURVEYS WERE COMPLETED PRIOR TO SITE GRADING AND INSTALLATION OF DRAINAGE INFRASTRUCTURE. SITE PLANS HAVE BEEN REVIEWED IN ORDER TO COORDINATE ROADWAY AND DRAINAGE DESIGN FOR THE NCDOT PROJECT.

NEWLY INSTALLED PIPED DRAINAGE INFRASTRUCTURE ON PARCEL #9 WILL SERVE AS THE DRAINAGE OUTLET FOR THE ROADWAY DRAINAGE SYSTEM LEAVING THE RIGHT-OF-WAY AT PROPOSED STRUCTURE 1303. THE INVERT ELEVATION FOR STRUCTURE 1303 IS BASED ON SITE DEVELOPMENT PLANS BY OTHERS, AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.

-Y1-	
PI Sta 17+36.45	PI Sta 21+26.10
Δ = 2° 01' 42.5" (RT)	Δ = 11° 32' 24.5" (RT)
D = 1° 08' 45.3"	D = 4° 01' 14.7"
L = 177.02'	L = 287.01'
T = 88.52'	T = 143.99'
R = 5,000.00'	R = 1,425.00'
SE = SEE PLANS	SE = SEE PLANS

SEE SHEET 7 FOR -Y1- PROFILE

3/12/2024
W-5704A&B_Rdy_psh_4c.dgn
USER: Brad Smith

Appendix D:
Trip Generation

Heavner Property

Table 1 - Trip Generation (11th Edition)

Land Use	Intensity		Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
220 Multifamily Housing (Low-Rise)	330	d.u.	2,192	1,096	1,096	125	30	95	162	102	60
820 Shopping Center (>150K)	500,000	s.f.	18,920	9,460	9,460	429	266	163	1,798	863	935
Subtotal			**21,112**	**10,556**	**10,556**	**554**	**296**	**258**	**1,960**	**965**	**995**
Internal Capture											
220 Multifamily Housing (Low-Rise)			499	263	236	2	1	1	63	44	19
820 Shopping Center (>150K)			499	236	263	2	1	1	63	19	44
Internal Capture Total	0.72%	6.43%	*998*	*499*	*499*	*4*	*2*	*2*	*126*	*63*	*63*
Total External Trips			**20,114**	**10,057**	**10,057**	**550**	**294**	**256**	**1,834**	**902**	**932**
Pass-By Capture	AM	PM									
820 Shopping Center (>150K)	0%	19%	1,750	875	875	0	0	0	329	160	169
Total Net New External Trips			**18,364**	**9,182**	**9,182**	**550**	**294**	**256**	**1,505**	**742**	**763**

K:\HSP_LDEV\012256009 Heavner, Johnston Grove - Clayton\T4 - Analysis\[1-HeavnerPropClayton-TIAData-FM&ThruCut.xlsx]Trip Gen 4/29/25

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
INPUT	Office	0	0	0	0	0	0
	Retail	9,460	9,460	266	163	863	935
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	1,096	1,096	30	95	102	60
	Hotel	0	0	0	0	0	0
		10,556	10,556	296	258	965	995

INTERNAL TRIPS

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
OUTPUT	Office	0	0	0	0	0	0
	Retail	236	263	1	1	25	47
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	263	236	1	1	47	25
	Hotel	0	0	0	0	0	0
		499	499	2	2	72	72
	% Reduction	4.7%		0.7%		7.3%	

EXTERNAL TRIPS

	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
OUTPUT	Office	0	0	0	0	0	0
	Retail	9,224	9,197	265	162	838	888
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	833	860	29	94	55	35
	Hotel	0	0	0	0	0	0
		10,057	10,057	294	256	893	923

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Heavner Property	**Organization:**	Kimley-Horn
Project Location:	Clayton, NC	**Perormed By:**	
Scenario Description:	Gateway Dr.: Full-Mvmt & Thru Cut	**Date:**	
Analysis Year:	2030	**Checked By:**	
Analysis Period:	**AM Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		0	SF	0	0	0
Retail	820	500,000	SF	429	266	163
Restaurant		0	SF	0	0	0
Cinema/Entertainment		0	SF	0	0	0
Residential	220	330	units	125	30	95
Hotel		0	rooms	0	0	0
All Other Land Uses[2]		0	SF	0	0	0
				554	**296**	**258**

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.1	0%	0%	1.1	0%	0%
Retail	1.1	0%	0%	1.1	0%	0%
Restaurant	1.1	0%	0%	1.1	0%	0%
Cinema/Entertainment	1.1	0%	0%	1.1	0%	0%
Residential	1.1	0%	0%	1.1	0%	0%
Hotel	1.1	0%	0%	1.1	0%	0%
All Other Land Uses[2]	1.1	0%	0%	1.1	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	610	326	284
Internal Capture Percentage	1%	1%	1%
External Vehicle-Trips[5]	551	294	257
External Transit-Trips[5]	0	0	0
External Non-Motorized Trips[5]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	0%	0%
Retail	0%	1%
Restaurant	0%	0%
Cinema/Entertainment	0%	0%
Residential	3%	1%
Hotel	0%	0%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE).
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
4Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mized-use project, manual adjustments must be made
5Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
[6]Person-Trips
*Indicates computaton that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D) Entering Trips			Table 7-A (O) Exiting Trips		
	Veh. Occ.[4]	Vehicle Trips	Person-Trips*	Veh. Occ.[4]	Vehicle Trips	Person-Trips*
Office	1.1	0	0	1.1	0	0
Retail	1.1	266	293	1.1	163	179
Restaurant	1.1	0	0	1.1	0	0
Cinema/Entertainment	1.1	0	0	1.1	0	0
Residential	1.1	30	33	1.1	95	105
Hotel	1.1	0	0	1.1	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	52		23	0	25	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	21	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		94	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	23		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	50	0	0		0
Hotel	0	12	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	292	293	265	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	32	33	29	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	178	179	162	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	104	105	95	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
[2]Person-Trips
[3]Total estimate for all other land uses at mixed use development site is not subject to internal capture computations in this estimator.
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool

Project Name:	Heavner Property	**Organization:**	Kimley-Horn
Project Location:	Clayton, NC	**Perormed By:**	
Scenario Description:	Gateway Dr.: Full-Mvmt & Thru Cut	**Date:**	
Analysis Year:	2030	**Checked By:**	
Analysis Period:	**PM Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		0	SF	0	0	0
Retail	820	500,000	SF	1,798	863	935
Restaurant		0	SF	0	0	0
Cinema/Entertainment		0	SF	0	0	0
Residential	220	330	units	162	102	60
Hotel		0	rooms	0	0	0
All Other Land Uses[2]		0	SF	0	0	0
				1,960	**965**	**995**

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.1	0%	0%	1.1	0%	0%
Retail	1.1	0%	0%	1.1	0%	0%
Restaurant	1.1	0%	0%	1.1	0%	0%
Cinema/Entertainment	1.1	0%	0%	1.1	0%	0%
Residential	1.1	0%	0%	1.1	0%	0%
Hotel	1.1	0%	0%	1.1	0%	0%
All Other Land Uses[2]	1.1	0%	0%	1.1	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office					1000	
Retail						
Restaurant						
Cinema/Entertainment						
Residential		1000				
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	48	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	21	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	2,157	1,062	1,095
Internal Capture Percentage	6%	6%	6%
External Vehicle-Trips[5]	1,835	902	933
External Transit-Trips[5]	0	0	0
External Non-Motorized Trips[5]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	0%	0%
Retail	2%	5%
Restaurant	0%	0%
Cinema/Entertainment	0%	0%
Residential	43%	32%
Hotel	0%	0%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE).
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made
[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[6]Person-Trips
*Indicates computaton that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D) Entering Trips			Table 7-P (O) Exiting Trips		
	Veh. Occ.[4]	Vehicle Trips	Person-Trips*	Veh. Occ.[4]	Vehicle Trips	Person-Trips*
Office	1.1	0	0	1.1	0	0
Retail	1.1	863	949	1.1	935	1029
Restaurant	1.1	0	0	1.1	0	0
Cinema/Entertainment	1.1	0	0	1.1	0	0
Residential	1.1	102	112	1.1	60	66
Hotel	1.1	0	0	1.1	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	21		298	41	249	51
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	21	14	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		76	0	0	4	0
Retail	0		0	0	48	0
Restaurant	0	475		0	18	0
Cinema/Entertainment	0	38	0		4	0
Residential	0	72	0	0		0
Hotel	0	19	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	21	928	949	844	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	48	64	112	58	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	48	981	1029	892	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	21	45	66	41	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[2]Person-Trips
[3]Total estimate for all other land uses at mixed use development site is not subject to internal capture computations in this estimator.
*Indicates computation that has been rounded to the nearest whole number.

Appendix E:
Intersection Spreadsheets –
Access Scenarios #1 & #2

INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Gateway Dr.: Full-Mvmt & Thru Cut
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	Town Centre Blvd

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.89

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Town Centre Blvd Northbound U-Turn	Left	Through	Right	Town Centre Blvd Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	21	789	64	0	62	1310	99	0	181	10	61	0	58	6	21
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	21	789	64	0	62	1310	99	0	181	10	61	0	58	6	21
Growth Factor (0.02 per year)	0.104	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2030 Background Growth	0	0	82	0	0	0	136	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	21	871	64	0	62	1446	99	0	181	10	61	0	58	6	21
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(30%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	12	0	0	0	28	0	0	9	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	53	0	0	0	32	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	65	0	0	0	60	0	0	9	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	65	0	0	0	60	0	0	9	0	0	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	21	936	64	0	62	1506	99	0	190	10	61	0	58	6	21
Approach % Impact		6.37%				3.60%				3.45%				0.00%		
Overall % Impact	4.4%															

PM PEAK HOUR
PHF = 0.98

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Town Centre Blvd Northbound U-Turn	Left	Through	Right	Town Centre Blvd Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	33	1366	230	15	155	930	59	0	145	12	224	0	75	10	11
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	33	1366	230	15	155	930	59	0	145	12	224	0	75	10	11
Growth Factor (0.02 per year)	0.104	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2030 Background Growth	0	0	142	0	2	0	97	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	33	1508	230	17	155	1027	59	0	145	12	224	0	75	10	11
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(30%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	23	0	0	0	12	0	0	4	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	137	0	0	0	144	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	160	0	0	0	156	0	0	4	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	160	0	0	0	156	0	0	4	0	0	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	33	1668	230	17	155	1183	59	0	149	12	224	0	75	10	11
Approach % Impact		8.29%				11.03%				1.04%				0.00%		
Overall % Impact	8.4%															

INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Gateway Dr.: Full-Mvmt & Thru Cut
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	Financial Drive/White Pine Drive

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.76

Description	US 70 BUS Eastbound				US 70 BUS Westbound				Financial Drive Northbound				White Pine Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2025 Traffic Count	0	0	799	130	0	384	0	0	0	0	0	294	0	0	0	0
Count Balancing	0	0	0	0	0	0	1457	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	799	130	0	384	1457	0	0	0	0	294	0	0	0	0
Growth Factor (0.02 per year)	0.000	0.000	0.104	0.000	0.000	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2030 Background Growth	0	0	83	0	0	0	152	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	882	130	0	384	1609	0	0	0	0	294	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(30%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	12	0	0	0	28	0	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	53	0	0	0	32	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	65	0	0	0	60	0	0	0	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	65	0	0	0	60	0	0	0	0	0	0	0	0	0
Traffic Diversion	0	0	-3	3	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	0	944	133	0	384	1669	0	0	0	0	294	0	0	0	0
Approach % Impact			6.04%				2.92%				0.00%				-	
Overall % Impact	3.7%															

PM PEAK HOUR
PHF = 0.97

Description	US 70 BUS Eastbound				US 70 BUS Westbound				Financial Drive Northbound				White Pine Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2025 Traffic Count	0	0	1642	35	0	189	0	0	0	0	0	227	0	0	0	0
Count Balancing	0	0	0	0	0	0	1163	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1642	35	0	189	1163	0	0	0	0	227	0	0	0	0
Growth Factor (0.02 per year)	0.000	0.000	0.104	0.000	0.000	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2030 Background Growth	0	0	171	0	0	0	121	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	1813	35	0	189	1284	0	0	0	0	227	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(30%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	23	0	0	0	12	0	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	137	0	0	0	144	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	160	0	0	0	156	0	0	0	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	160	0	0	0	156	0	0	0	0	0	0	0	0	0
Traffic Diversion	0	0	-23	23	0	16	0	0	0	0	0	40	0	0	0	0
2030 Buildout Total	0	0	1950	58	0	205	1440	0	0	0	0	267	0	0	0	0
Approach % Impact			7.97%				9.48%				0.00%				-	
Overall % Impact	8.1%															

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INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Gateway Dr.: Full-Mvmt & Thru Cut
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	ABC Drwy (Site Access B)/Gateway Drive

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.85

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	ABC Drwy (Site Access B) Northbound U-Turn	Left	Through	Right	Gateway Drive Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	32	1065	3	21	0	1782	71	0	0	0	0	0	0	0	59
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	32	1065	3	21	0	1782	71	0	0	0	0	0	0	0	59
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	3	111	0	2	0	185	7	0	0	0	0	0	0	0	6
2030 Background Traffic	0	35	1176	3	23	0	1967	78	0	0	0	0	0	0	0	65
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	5%	30%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(30%)	(0%)	(45%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	6	9	0	15	0	0	0	28	0	42	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	5%	10%	0%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(0%)	(30%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	38	27	0	119	0	0	0	32	0	49	0	0	0	0
Total External Site Traffic	0	0	44	36	0	134	0	0	0	60	0	91	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	44	36	0	134	0	0	0	60	0	91	0	0	0	0
Traffic Diversions	0	0	0	-3	-23	0	0	0	0	0	0	0	0	23	0	0
2030 Buildout Total	0	35	1220	36	0	134	1967	78	0	60	0	91	0	23	0	65
Approach % Impact		6.20%				6.15%				100.00%				0.00%		
Overall % Impact	9.8%															

PM PEAK HOUR
PHF = 0.96

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	ABC Drwy (Site Access B) Northbound U-Turn	Left	Through	Right	Gateway Drive Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	33	1776	23	21	16	1287	39	0	0	0	40	0	0	0	65
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	33	1776	23	21	16	1287	39	0	0	0	40	0	0	0	65
Growth Factor (0.02 per year)	0.000	0.104	0.104	0.000	0.104	0.000	0.104	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.104
2030 Background Growth	0	3	185	0	2	0	134	4	0	0	0	0	0	0	0	7
2030 Background Traffic	0	36	1961	23	23	16	1421	43	0	0	0	40	0	0	0	72
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	5%	30%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(30%)	(0%)	(45%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	5	17	0	29	0	0	0	12	0	18	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	5%	10%	0%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(0%)	(30%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	143	68	0	308	0	0	0	144	0	217	0	0	0	0
Total External Site Traffic	0	0	148	85	0	337	0	0	0	156	0	235	0	0	0	0
Pass-By Capture Reduction	0	0	-96	0	0	0	-64	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	49	48	0	32	0	0	0	68	0	34	0	0	0	0
Total Pass-By Traffic	0	0	-47	48	0	32	-64	0	0	68	0	34	0	0	0	0
Total Project Traffic	0	0	101	133	0	369	-64	0	0	224	0	269	0	0	0	0
Traffic Diversion	0	0	40	-23	-23	-16	16	0	0	0	0	-40	0	23	0	0
2030 Buildout Total	0	36	2102	133	0	369	1373	43	0	224	0	269	0	23	0	72
Approach % Impact		10.30%				17.09%				100.00%				0.00%		
Overall % Impact	22.2%															

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INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Gateway Dr.: Full-Mvmt & Thru Cut
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	Site Access C (LI/RI/RO)/Medical Park

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.84

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Site Access C (LI/RI/RO) Northbound U-Turn	Left	Through	Right	Medical Park Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	0	1092	0	0	0	1872	1	0	0	0	0	0	0	0	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1092	0	0	0	1872	1	0	0	0	0	0	0	0	2
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	0	114	0	0	0	195	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	1206	0	0	0	2067	1	0	0	0	0	0	0	0	2
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	5%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(50%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	47	1	0	1	15	0	0	0	0	5	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	35%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(45%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(35%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	73	13	0	93	119	0	0	0	0	57	0	0	0	0
Total External Site Traffic	0	0	120	14	0	94	134	0	0	0	0	62	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	120	14	0	94	134	0	0	0	0	62	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	0	1326	14	0	94	2201	1	0	0	0	62	0	0	0	2
Approach % Impact			10.00%				9.93%				100.00%				0.00%	
Overall % Impact	11.5%															

PM PEAK HOUR
PHF = 0.96

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Site Access C (LI/RI/RO) Northbound U-Turn	Left	Through	Right	Medical Park Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	5	1808	0	0	0	1340	1	0	0	0	0	0	0	0	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	5	1808	0	0	0	1340	1	0	0	0	0	0	0	0	2
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	1	188	0	0	0	139	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	6	1996	0	0	0	1479	1	0	0	0	0	0	0	0	2
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	5%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(50%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	21	3	0	3	29	0	0	0	0	2	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	35%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(45%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(35%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	325	35	0	239	308	0	0	0	0	253	0	0	0	0
Total External Site Traffic	0	0	346	38	0	242	337	0	0	0	0	255	0	0	0	0
Pass-By Capture Reduction	0	0	-96	0	0	0	-64	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	59	24	0	32	32	0	0	0	0	42	0	0	0	0
Total Pass-By Traffic	0	0	-37	24	0	32	-32	0	0	0	0	42	0	0	0	0
Total Project Traffic	0	0	309	62	0	274	305	0	0	0	0	297	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	6	2305	62	0	274	1784	1	0	0	0	297	0	0	0	2
Approach % Impact			15.63%				28.12%				100.00%				0.00%	
Overall % Impact	26.4%															

INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Gateway Dr.: Full-Mvmt & Thru Cut
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	Shotwell Road

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.93

Description		US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Shotwell Road Northbound U-Turn	Left	Through	Right	Shotwell Road Southbound U-Turn	Left	Through	Right
2025	**Traffic Count**	23	102	821	142	14	44	1571	187	0	133	157	23	0	204	141	150
Count Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	**Existing Traffic**	23	102	821	142	14	44	1571	187	0	133	157	23	0	204	141	150
Growth Factor (0.02 per year)		0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030	**Background Growth**	2	11	85	15	1	5	164	19	0	14	16	2	0	21	15	16
2030	**Background Traffic**	25	113	906	157	15	49	1735	206	0	147	173	25	0	225	156	166
Project Traffic																	
Residential																	
Percent Assignment Inbound		0%	0%	0%	0%	0%	0%	40%	0%	0%	10%	0%	0%	0%	0%	0%	5%
Percent Assignment Outbound		(0%)	(5%)	(40%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic		0	5	38	9	0	0	12	0	0	3	0	0	0	0	0	1
Non-Residential																	
Percent Assignment Inbound		0%	0%	0%	0%	0%	0%	50%	0%	0%	20%	0%	0%	0%	0%	0%	10%
Percent Assignment Outbound		(0%)	(10%)	(50%)	(20%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic		0	16	81	32	0	0	133	0	0	53	0	0	0	0	0	27
Total External Site Traffic		0	21	119	41	0	0	145	0	0	56	0	0	0	0	0	28
Pass-By Capture Reduction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic		0	21	119	41	0	0	145	0	0	56	0	0	0	0	0	28
Traffic Diversion		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	**Buildout Total**	25	134	1025	198	15	49	1880	206	0	203	173	25	0	225	156	194
Approach % Impact			13.10%				6.74%				13.97%				4.87%		
Overall % Impact		9.1%															

PM PEAK HOUR
PHF = 0.97

Description		US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Shotwell Road Northbound U-Turn	Left	Through	Right	Shotwell Road Southbound U-Turn	Left	Through	Right
2025	**Traffic Count**	24	129	1445	177	42	107	1110	202	0	148	162	54	0	205	156	105
Count Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	**Existing Traffic**	24	129	1445	177	42	107	1110	202	0	148	162	54	0	205	156	105
Growth Factor (0.02 per year)		0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030	**Background Growth**	2	13	150	18	4	11	116	21	0	15	17	6	0	21	16	11
2030	**Background Traffic**	26	142	1595	195	46	118	1226	223	0	163	179	60	0	226	172	116
Project Traffic																	
Residential																	
Percent Assignment Inbound		0%	0%	0%	0%	0%	0%	40%	0%	0%	10%	0%	0%	0%	0%	0%	5%
Percent Assignment Outbound		(0%)	(5%)	(40%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic		0	2	16	4	0	0	23	0	0	6	0	0	0	0	0	3
Non-Residential																	
Percent Assignment Inbound		0%	0%	0%	0%	0%	0%	50%	0%	0%	20%	0%	0%	0%	0%	0%	10%
Percent Assignment Outbound		(0%)	(10%)	(50%)	(20%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic		0	72	361	144	0	0	342	0	0	137	0	0	0	0	0	68
Total External Site Traffic		0	74	377	148	0	0	365	0	0	143	0	0	0	0	0	71
Pass-By Capture Reduction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic		0	74	377	148	0	0	365	0	0	143	0	0	0	0	0	71
Traffic Diversion		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	**Buildout Total**	26	216	1972	343	46	118	1591	223	0	306	179	60	0	226	172	187
Approach % Impact			23.43%				18.45%				26.24%				12.14%		
Overall % Impact		20.8%															

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INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Gateway Dr.: Full-Mvmt & Thru Cut
Ct. Date	Balanced with Financial Drive
E/W Street:	US 70 BUS
N/S Street:	Site Access A (RI/RO)

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.90

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Site Access A (RI/RO) Northbound U-Turn	Left	Through	Right	Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	1100	0	0	0	1841	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1100	0	0	0	1841	0	0	0	0	0	0	0	0	0
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	0	114	0	0	0	192	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	1214	0	0	0	2033	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	35%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(30%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	10	1	0	0	28	0	0	0	0	5	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	15%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	40	13	0	0	32	0	0	0	0	24	0	0	0	0
Total External Site Traffic	0	0	50	14	0	0	60	0	0	0	0	29	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	50	14	0	0	60	0	0	0	0	29	0	0	0	0
Traffic Diversion	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	0	1261	14	0	0	2093	0	0	0	0	29	0	0	0	0
Approach % Impact			5.02%				2.87%				100.00%				-	
Overall % Impact	4.5%															

PM PEAK HOUR
PHF = 0.90

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Site Access A (RI/RO) Northbound U-Turn	Left	Through	Right	Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	1832	0	0	0	1352	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1832	0	0	0	1352	0	0	0	0	0	0	0	0	0
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	0	191	0	0	0	141	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	2023	0	0	0	1493	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	35%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(30%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	20	3	0	0	12	0	0	0	0	2	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	15%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	103	34	0	0	144	0	0	0	0	108	0	0	0	0
Total External Site Traffic	0	0	123	37	0	0	156	0	0	0	0	110	0	0	0	0
Pass-By Capture Reduction	0	0	-96	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	72	24	0	0	0	0	0	0	0	25	0	0	0	0
Total Pass-By Traffic	0	0	-24	24	0	0	0	0	0	0	0	25	0	0	0	0
Total Project Traffic	0	0	99	61	0	0	156	0	0	0	0	135	0	0	0	0
Traffic Diversion	0	0	17	0	0	0	16	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	0	2139	61	0	0	1665	0	0	0	0	135	0	0	0	0
Approach % Impact			7.27%				9.37%				100.00%				-	
Overall % Impact	11.3%															

Appendix F:
Intersection Spreadsheets –
Access Scenario #3

INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Full Build
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	Town Centre Blvd

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.89

Description	US 70 BUS Eastbound				US 70 BUS Westbound				Town Centre Blvd Northbound				Town Centre Blvd Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2025 Traffic Count	0	21	789	64	0	62	1310	99	0	181	10	61	0	58	6	21
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	21	789	64	0	62	1310	99	0	181	10	61	0	58	6	21
Growth Factor (0.02 per year)	0.104	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2030 Background Growth	0	0	82	0	0	0	136	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	21	871	64	0	62	1446	99	0	181	10	61	0	58	6	21
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(25%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	12	0	0	0	14	0	0	24	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	53	0	0	0	24	0	0	8	0	0	0	0	0	0
Total External Site Traffic	0	0	65	0	0	0	38	0	0	32	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	65	0	0	0	38	0	0	32	0	0	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	21	936	64	0	62	1484	99	0	213	10	61	0	58	6	21
Approach % Impact			6.37%				2.31%				11.27%				0.00%	
Overall % Impact	4.4%															

PM PEAK HOUR
PHF = 0.98

Description	US 70 BUS Eastbound				US 70 BUS Westbound				Town Centre Blvd Northbound				Town Centre Blvd Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2025 Traffic Count	0	33	1366	230	15	155	930	59	0	145	12	224	0	75	10	11
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	33	1366	230	15	155	930	59	0	145	12	224	0	75	10	11
Growth Factor (0.02 per year)	0.104	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2030 Background Growth	0	0	142	0	2	0	97	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	33	1508	230	17	155	1027	59	0	145	12	224	0	75	10	11
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(25%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	23	0	0	0	6	0	0	10	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	137	0	0	0	108	0	0	36	0	0	0	0	0	0
Total External Site Traffic	0	0	160	0	0	0	114	0	0	46	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	160	0	0	0	114	0	0	46	0	0	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	33	1668	230	17	155	1141	59	0	191	12	224	0	75	10	11
Approach % Impact			8.29%				8.31%				10.77%				0.00%	
Overall % Impact	8.4%															

INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Full Build
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	Financial Drive/White Pine Drive

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.76

Description	US 70 BUS Eastbound				US 70 BUS Westbound				Financial Drive Northbound				White Pine Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2025 Traffic Count	0	0	799	130	0	384	0	0	0	0	0	294	0	0	0	0
Count Balancing	0	0	0	0	0	0	1457	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	799	130	0	384	1457	0	0	0	0	294	0	0	0	0
Growth Factor (0.02 per year)	0.000	0.000	0.104	0.000	0.000	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2030 Background Growth	0	0	83	0	0	0	152	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	882	130	0	384	1609	0	0	0	0	294	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	12	0	0	0	14	0	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	53	0	0	0	24	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	65	0	0	0	38	0	0	0	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	65	0	0	0	38	0	0	0	0	0	0	0	0	0
Traffic Diversion	0	0	-3	3	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	0	944	133	0	384	1647	0	0	0	0	294	0	0	0	0
Approach % Impact			6.04%				1.87%				0.00%				-	
Overall % Impact	3.0%															

PM PEAK HOUR
PHF = 0.97

Description	US 70 BUS Eastbound				US 70 BUS Westbound				Financial Drive Northbound				White Pine Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2025 Traffic Count	0	0	1642	35	0	189	0	0	0	0	0	227	0	0	0	0
Count Balancing	0	0	0	0	0	0	1163	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1642	35	0	189	1163	0	0	0	0	227	0	0	0	0
Growth Factor (0.02 per year)	0.000	0.000	0.104	0.000	0.000	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2030 Background Growth	0	0	171	0	0	0	121	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	1813	35	0	189	1284	0	0	0	0	227	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	23	0	0	0	6	0	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	137	0	0	0	108	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	160	0	0	0	114	0	0	0	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	160	0	0	0	114	0	0	0	0	0	0	0	0	0
Traffic Diversion	0	0	-23	23	0	16	0	0	0	0	0	40	0	0	0	0
2030 Buildout Total	0	0	1950	58	0	205	1398	0	0	0	0	267	0	0	0	0
Approach % Impact			7.97%				7.11%				0.00%				-	
Overall % Impact	7.1%															

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INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Full Build
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	ABC Drwy (Site Access B)/Gateway Drive

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.85

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	ABC Drwy (Site Access B) Northbound U-Turn	Left	Through	Right	Gateway Drive Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	32	1065	3	21	0	1782	71	0	0	0	0	0	0	0	59
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	32	1065	3	21	0	1782	71	0	0	0	0	0	0	0	59
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	3	111	0	2	0	185	7	0	0	0	0	0	0	0	6
2030 Background Traffic	0	35	1176	3	23	0	1967	78	0	0	0	0	0	0	0	65
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	5%	30%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(60%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	6	9	0	15	14	0	0	0	0	56	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	5%	10%	0%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(40%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	38	27	0	119	24	0	0	0	0	65	0	0	0	0
Total External Site Traffic	0	0	44	36	0	134	38	0	0	0	0	121	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	44	36	0	134	38	0	0	0	0	121	0	0	0	0
Traffic Diversions	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	35	1220	36	23	134	2005	78	0	0	0	121	0	0	0	65
Approach % Impact		6.20%				7.68%				100.00%				0.00%		
Overall % Impact	10.0%															

PM PEAK HOUR
PHF = 0.96

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	ABC Drwy (Site Access B) Northbound U-Turn	Left	Through	Right	Gateway Drive Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	33	1776	23	21	16	1287	39	0	0	0	40	0	0	0	65
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	33	1776	23	21	16	1287	39	0	0	0	40	0	0	0	65
Growth Factor (0.02 per year)	0.000	0.104	0.104	0.000	0.104	0.000	0.104	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.104
2030 Background Growth	0	3	185	0	2	0	134	4	0	0	0	0	0	0	0	7
2030 Background Traffic	0	36	1961	23	23	16	1421	43	0	0	0	40	0	0	0	72
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	5%	30%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(60%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	5	17	0	29	6	0	0	0	0	25	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	5%	10%	0%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(40%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	143	68	0	308	108	0	0	0	0	289	0	0	0	0
Total External Site Traffic	0	0	148	85	0	337	114	0	0	0	0	314	0	0	0	0
Pass-By Capture Reduction	0	0	-96	0	0	0	-64	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	49	48	0	32	68	0	0	0	0	76	0	0	0	0
Total Pass-By Traffic	0	0	-47	48	0	32	4	0	0	0	0	76	0	0	0	0
Total Project Traffic	0	0	101	133	0	369	118	0	0	0	0	390	0	0	0	0
Traffic Diversion	0	0	40	-23	0	-16	16	0	0	0	0	-40	0	0	0	0
2030 Buildout Total	0	36	2102	133	23	369	1555	43	0	0	0	390	0	0	0	72
Approach % Impact		10.30%				24.47%				100.00%				0.00%		
Overall % Impact	23.5%															

INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Full Build
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	Site Access C (LI/RI/RO)/Medical Park

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.84

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Site Access C (LI/RI/RO) Northbound U-Turn	Left	Through	Right	Medical Park Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	0	1092	0	0	0	1872	1	0	0	0	0	0	0	0	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1092	0	0	0	1872	1	0	0	0	0	0	0	0	2
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	0	114	0	0	0	195	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	1206	0	0	0	2067	1	0	0	0	0	0	0	0	2
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	5%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(15%)	(0%)	(50%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	14	0	47	1	0	1	15	0	0	0	0	5	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	35%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(10%)	(0%)	(45%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(40%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	16	0	73	13	0	93	127	0	0	0	0	65	0	0	0	0
Total External Site Traffic	30	0	120	14	0	94	142	0	0	0	0	70	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	30	0	120	14	0	94	142	0	0	0	0	70	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	30	0	1326	14	0	94	2209	1	0	0	0	70	0	0	0	2
Approach % Impact			11.97%				10.24%				100.00%				0.00%	
Overall % Impact	12.5%															

PM PEAK HOUR
PHF = 0.96

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Site Access C (LI/RI/RO) Northbound U-Turn	Left	Through	Right	Medical Park Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	5	1808	0	0	0	1340	1	0	0	0	0	0	0	0	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	5	1808	0	0	0	1340	1	0	0	0	0	0	0	0	2
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	1	188	0	0	0	139	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	6	1996	0	0	0	1479	1	0	0	0	0	0	0	0	2
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	5%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(15%)	(0%)	(50%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	6	0	21	3	0	3	29	0	0	0	0	2	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	35%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(10%)	(0%)	(45%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(40%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	72	0	325	35	0	239	344	0	0	0	0	289	0	0	0	0
Total External Site Traffic	78	0	346	38	0	242	373	0	0	0	0	291	0	0	0	0
Pass-By Capture Reduction	0	0	-96	0	0	0	-64	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	42	0	59	24	0	32	57	0	0	0	0	68	0	0	0	0
Total Pass-By Traffic	42	0	-37	24	0	32	-7	0	0	0	0	68	0	0	0	0
Total Project Traffic	120	0	309	62	0	274	366	0	0	0	0	359	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	120	6	2305	62	0	274	1845	1	0	0	0	359	0	0	0	2
Approach % Impact			19.70%				30.19%				100.00%				0.00%	
Overall % Impact	30.0%															

INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Full Build
Ct. Date	1/8/2025
E/W Street:	US 70 BUS
N/S Street:	Shotwell Road

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.93

Description	US 70 BUS Eastbound				US 70 BUS Westbound				Shotwell Road Northbound				Shotwell Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2025 Traffic Count	23	102	821	142	14	44	1571	187	0	133	157	23	0	204	141	150
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	23	102	821	142	14	44	1571	187	0	133	157	23	0	204	141	150
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	2	11	85	15	1	5	164	19	0	14	16	2	0	21	15	16
2030 Background Traffic	25	113	906	157	15	49	1735	206	0	147	173	25	0	225	156	166
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	40%	0%	0%	10%	0%	0%	0%	0%	0%	5%
Percent Assignment Outbound	(0%)	(5%)	(40%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	5	38	9	0	0	12	0	0	3	0	0	0	0	0	1
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	50%	0%	0%	20%	0%	0%	0%	0%	0%	10%
Percent Assignment Outbound	(0%)	(10%)	(50%)	(20%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	16	81	32	0	0	133	0	0	53	0	0	0	0	0	27
Total External Site Traffic	0	21	119	41	0	0	145	0	0	56	0	0	0	0	0	28
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	21	119	41	0	0	145	0	0	56	0	0	0	0	0	28
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	25	134	1025	198	15	49	1880	206	0	203	173	25	0	225	156	194
Approach % Impact		13.10%				6.74%				13.97%				4.87%		
Overall % Impact	9.1%															

PM PEAK HOUR
PHF = 0.97

Description	US 70 BUS Eastbound				US 70 BUS Westbound				Shotwell Road Northbound				Shotwell Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2025 Traffic Count	24	129	1445	177	42	107	1110	202	0	148	162	54	0	205	156	105
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	24	129	1445	177	42	107	1110	202	0	148	162	54	0	205	156	105
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	2	13	150	18	4	11	116	21	0	15	17	6	0	21	16	11
2030 Background Traffic	26	142	1595	195	46	118	1226	223	0	163	179	60	0	226	172	116
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	40%	0%	0%	10%	0%	0%	0%	0%	0%	5%
Percent Assignment Outbound	(0%)	(5%)	(40%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	2	16	4	0	0	23	0	0	6	0	0	0	0	0	3
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	50%	0%	0%	20%	0%	0%	0%	0%	0%	10%
Percent Assignment Outbound	(0%)	(10%)	(50%)	(20%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	72	361	144	0	0	342	0	0	137	0	0	0	0	0	68
Total External Site Traffic	0	74	377	148	0	0	365	0	0	143	0	0	0	0	0	71
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	74	377	148	0	0	365	0	0	143	0	0	0	0	0	71
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	26	216	1972	343	46	118	1591	223	0	306	179	60	0	226	172	187
Approach % Impact		23.43%				18.45%				26.24%				12.14%		
Overall % Impact	20.8%															

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INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Full Build
Ct. Date	Balanced with Financial Drive
E/W Street:	US 70 BUS
N/S Street:	Site Access A (RI/RO)

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.90

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Site Access A (RI/RO) Northbound U-Turn	Left	Through	Right	Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	1100	0	0	0	1841	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1100	0	0	0	1841	0	0	0	0	0	0	0	0	0
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	0	114	0	0	0	192	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	1214	0	0	0	2033	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	35%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	10	1	0	0	14	0	0	0	0	5	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	15%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	40	13	0	0	24	0	0	0	0	24	0	0	0	0
Total External Site Traffic	0	0	50	14	0	0	38	0	0	0	0	29	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	50	14	0	0	38	0	0	0	0	29	0	0	0	0
Traffic Diversion	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	0	1261	14	0	0	2071	0	0	0	0	29	0	0	0	0
Approach % Impact			5.02%				1.83%				100.00%				-	
Overall % Impact	3.9%															

PM PEAK HOUR
PHF = 0.90

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	Site Access A (RI/RO) Northbound U-Turn	Left	Through	Right	Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	1832	0	0	0	1352	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1832	0	0	0	1352	0	0	0	0	0	0	0	0	0
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	0	191	0	0	0	141	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	2023	0	0	0	1493	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	35%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	20	3	0	0	6	0	0	0	0	2	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	15%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	103	34	0	0	108	0	0	0	0	108	0	0	0	0
Total External Site Traffic	0	0	123	37	0	0	114	0	0	0	0	110	0	0	0	0
Pass-By Capture Reduction	0	0	-96	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	72	24	0	0	0	0	0	0	0	25	0	0	0	0
Total Pass-By Traffic	0	0	-24	24	0	0	0	0	0	0	0	25	0	0	0	0
Total Project Traffic	0	0	99	61	0	0	114	0	0	0	0	135	0	0	0	0
Traffic Diversion	0	0	17	0	0	0	16	0	0	0	0	0	0	0	0	0
2030 Buildout Total	0	0	2139	61	0	0	1623	0	0	0	0	135	0	0	0	0
Approach % Impact			7.27%				7.02%				100.00%				-	
Overall % Impact	10.3%															

INTERSECTION ANALYSIS SHEET

Project:	Heavner Property
Location:	Clayton, NC
Scenario:	Full Build
Ct. Date	Balanced with Financial Drive
E/W Street:	US 70 BUS
N/S Street:	U-Turn East of Site Access C

	AM In	AM Out	PM In	PM Out
Residential New Trips:	29	94	58	41
Non-Residential New Trips:	265	162	684	722
Pass-By Trips:	0	0	160	169

Annual Growth Rate:	2.0%	**Existing Year:**	2025
Growth Factor:	0.104	**Buildout Year:**	2030

AM PEAK HOUR
PHF = 0.90

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	U-Turn East of Site Access C Northbound U-Turn	Left	Through	Right	Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	1092	0	0	0	1873	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1092	0	0	0	1873	0	0	0	0	0	0	0	0	0
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	0	114	0	0	0	195	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	1206	0	0	0	2068	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	55%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(55%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	52	0	0	0	16	0	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	80%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(5%)	(0%)	(80%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	8	0	130	0	0	0	212	0	0	0	0	0	0	0	0	0
Total External Site Traffic	8	0	182	0	0	0	228	0	0	0	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	8	0	182	0	0	0	228	0	0	0	0	0	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	8	0	1388	0	0	0	2296	0	0	0	0	0	0	0	0	0
Approach % Impact			13.61%				9.93%			-					-	
Overall % Impact	11.3%															

PM PEAK HOUR
PHF = 0.90

Description	US 70 BUS Eastbound U-Turn	Left	Through	Right	US 70 BUS Westbound U-Turn	Left	Through	Right	U-Turn East of Site Access C Northbound U-Turn	Left	Through	Right	Southbound U-Turn	Left	Through	Right
2025 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	1808	0	0	0	1341	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	1808	0	0	0	1341	0	0	0	0	0	0	0	0	0
Growth Factor (0.02 per year)	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
2030 Background Growth	0	0	188	0	0	0	140	0	0	0	0	0	0	0	0	0
2030 Background Traffic	0	0	1996	0	0	0	1481	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	55%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(55%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	23	0	0	0	32	0	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	80%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(5%)	(0%)	(80%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	36	0	578	0	0	0	547	0	0	0	0	0	0	0	0	0
Total External Site Traffic	36	0	601	0	0	0	579	0	0	0	0	0	0	0	0	0
Pass-By Capture Reduction	0	0	-96	0	0	0	-64	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	25	0	101	0	0	0	64	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	25	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	61	0	606	0	0	0	579	0	0	0	0	0	0	0	0	0
Traffic Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030 Buildout Total	61	0	2602	0	0	0	2060	0	0	0	0	0	0	0	0	0
Approach % Impact			25.05%				28.11%			-					-	
Overall % Impact	26.4%															

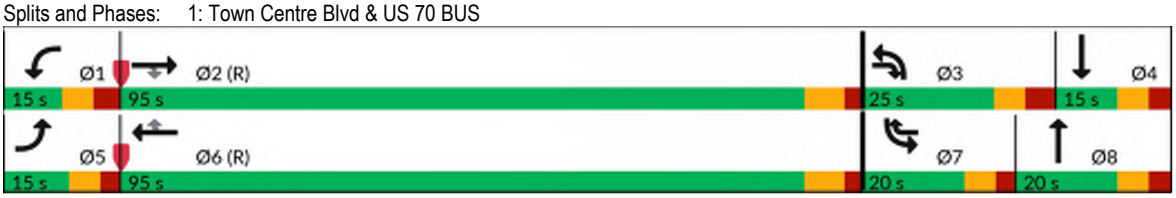
Appendix G:
Synchro Output:
Existing (2025)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	789	64	62	1310	99	181	10	61	58	6	21
Future Volume (vph)	21	789	64	62	1310	99	181	10	61	58	6	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-4%			0%			-2%	
Storage Length (ft)	200		600	450		130	200		0	0		80
Storage Lanes	1		1	2		1	1		0	1		1
Taper Length (ft)	300			125			100			25		
Satd. Flow (prot)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			82		69			24	
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1681			1007			1019			1004	
Travel Time (s)		20.8			12.5			27.8			27.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	887	72	70	1472	111	203	80	0	65	31	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6						
Detector Phase	5	2	3	1	6	7	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.5	21.1	14.7	14.3	21.1	13.5	14.7	14.0		13.5	14.0	
Total Split (s)	15.0	95.0	25.0	15.0	95.0	20.0	25.0	20.0		20.0	15.0	
Total Split (%)	10.0%	63.3%	16.7%	10.0%	63.3%	13.3%	16.7%	13.3%		13.3%	10.0%	
Yellow Time (s)	4.0	5.1	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.0	3.7	3.3	2.0	2.5	3.7	3.0		2.5	3.0	
Lost Time Adjust (s)	-1.5	-2.1	-2.7	-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None	None	None		None	None	
Act Effct Green (s)	9.0	98.4	124.9	10.3	102.3	119.4	20.5	12.1		12.1	9.3	
Actuated g/C Ratio	0.06	0.66	0.83	0.07	0.68	0.80	0.14	0.08		0.08	0.06	
v/c Ratio	0.24	0.41	0.06	0.30	0.61	0.09	0.43	0.41		0.45	0.25	
Control Delay (s/veh)	73.4	14.1	0.7	69.8	16.2	1.9	63.1	24.1		75.3	34.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	73.4	14.1	0.7	69.8	16.2	1.9	63.1	24.1		75.3	34.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	B	A	E	B	A	E	C		E	C	
Approach Delay (s/veh)		14.5			17.5			52.1			62.0	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	23	224	0	34	446	6	97	10		62	7	
Queue Length 95th (ft)	54	284	9	60	566	23	137	62		111	42	
Internal Link Dist (ft)		1601			927			939			924	
Turn Bay Length (ft)	200		600	450		130	200					
Base Capacity (vph)	110	2169	1254	239	2414	1306	490	224		178	133	
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	0.22	0.41	0.06	0.29	0.61	0.08	0.41	0.36		0.37	0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 21.2		Intersection LOS: C	
Intersection Capacity Utilization 56.4%		ICU Level of Service B	
Analysis Period (min) 15			
Description: 04-1292			

Splits and Phases: 1: Town Centre Blvd & US 70 BUS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	799	130	384	1457	4	0	0	294	0	0	4
Future Volume (vph)	4	799	130	384	1457	4	0	0	294	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			1273			1033			501	
Travel Time (s)		12.5			15.8			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	1051	171	505	1922	0	0	0	387	0	0	5
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	799	130	384	1457	4	0	0	294	0	0	4
Future Vol, veh/h	4	799	130	384	1457	4	0	0	294	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1051	171	505	1917	5	0	0	387	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1922	0	0	1222	0	0	-	-	526	-	-	961
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.24	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.27	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	284	-	-	566	-	-	0	0	497	0	0	256
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	284	-	-	566	-	-	-	-	497	-	-	256
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.08	8.99	33.31	19.34
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	497	284	-	-	566	-	-	256
HCM Lane V/C Ratio	0.779	0.019	-	-	0.893	-	-	0.021
HCM Control Delay (s/veh)	33.3	17.9	-	-	43.2	-	-	19.3
HCM Lane LOS	D	C	-	-	E	-	-	C
HCM 95th %tile Q(veh)	7	0.1	-	-	10.5	-	-	0.1

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	32	1065	4	21	4	1782	71	0	0	4	0	0
Future Volume (vph)	32	1065	4	21	4	1782	71	0	0	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	200		150		150		200	0		0	0	
Storage Lanes	1		1		1		1	0		1	0	
Taper Length (ft)	200				200			25			25	
Satd. Flow (prot)	1687	3374	1509	0	1736	3471	1553	0	0	1611	0	0
Flt Permitted	0.950				0.950							
Satd. Flow (perm)	1687	3374	1509	0	1736	3471	1553	0	0	1611	0	0
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1273				552			1016			1086
Travel Time (s)		15.8				6.8			27.7			29.6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	4%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1253	5	0	30	2096	84	0	0	5	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			



Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	59
Future Volume (vph)	59
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.85
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	69
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	32	1065	4	21	4	1782	71	0	0	4	0	0	59
Future Vol, veh/h	32	1065	4	21	4	1782	71	0	0	4	0	0	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	200	-	150	-	150	-	200	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	7	7	7	4	4	4	4	2	2	2	2	2	2
Mvmt Flow	38	1253	5	25	5	2096	84	0	0	5	0	0	69

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	2180	0	0	1253	1258	0	0	-	-	626	-	-	1048
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.24	-	-	6.48	4.18	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.27	-	-	2.54	2.24	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	224	-	-	224	538	-	-	0	0	427	0	0	224
Stage 1	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	224	-	-	244	244	-	-	-	-	427	-	-	224
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.71	0.29	13.53	28.09
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	224	-	-	244	-	-	224
HCM Lane V/C Ratio	0.011	0.168	-	-	0.12	-	-	0.31
HCM Control Delay (s/veh)	13.5	24.3	-	-	21.7	-	-	28.1
HCM Lane LOS	B	C	-	-	C	-	-	D
HCM 95th %tile Q(veh)	0	0.6	-	-	0.4	-	-	1.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1872	4	0	4	0	0	0	4
Future Volume (vph)	0	0	0	0	1872	4	0	4	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3471	1553	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3471	1553	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			25	
Link Distance (ft)		458			217			187			1026	
Travel Time (s)		5.7			2.7			2.3			28.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2229	5	0	5	0	0	0	5
Sign Control		Stop			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.7%	ICU Level of Service B	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↱		↑				↱
Traffic Vol, veh/h	0	0	0	0	1872	4	0	4	0	0	0	4
Future Vol, veh/h	0	0	0	0	1872	4	0	4	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	2229	5	0	5	0	0	0	5

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	1114
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	203
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	203
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	23.2
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	203
HCM Lane V/C Ratio	-	-	0.024
HCM Control Delay (s/veh)	-	-	23.2
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	23	102	821	142	14	44	1571	187	133	157	23	204
Future Volume (vph)	23	102	821	142	14	44	1571	187	133	157	23	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		850		550		125		175	165		0	400
Storage Lanes		1		1		1		1	1		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	1720	3440	1539	0	1726	4960	1544	1718	1774	0	1673
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	1720	3440	1539	0	1726	4960	1544	1718	1774	0	1673
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				153				160		4		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1023				1039			1091		
Travel Time (s)			15.5				15.7			21.3		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%	3%	3%	4%	4%	4%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	135	883	153	0	62	1689	201	143	194	0	219
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	Free	Split	NA		Split
Protected Phases	5	5	2	3	1	1	6		3	3		4
Permitted Phases				2				Free				
Detector Phase	5	5	2	3	1	1	6		3	3		4
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.3	13.3	23.7	13.2	13.5	13.5	23.6		13.2	13.2		24.6
Total Split (s)	20.0	20.0	70.0	25.0	15.0	15.0	65.0		25.0	25.0		40.0
Total Split (%)	13.3%	13.3%	46.7%	16.7%	10.0%	10.0%	43.3%		16.7%	16.7%		26.7%
Yellow Time (s)	3.0	3.0	4.7	3.7	3.0	3.0	4.3		3.7	3.7		4.7
All-Red Time (s)	3.3	3.3	1.0	2.5	3.5	3.5	1.3		2.5	2.5		1.9
Lost Time Adjust (s)		-1.3	-0.7	-1.2		-1.5	-0.6		-1.2	-1.2		-1.6
Total Lost Time (s)		5.0	5.0	5.0		5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max	None	None	None	C-Max		None	None		None
Act Effct Green (s)		15.0	73.2	97.1		9.9	65.4	150.0	18.9	18.9		30.7
Actuated g/C Ratio		0.10	0.49	0.65		0.07	0.44	1.00	0.13	0.13		0.20
v/c Ratio		0.79	0.53	0.15		0.55	0.78	0.13	0.66	0.85		0.64
Control Delay (s/veh)		95.4	29.8	2.1		86.0	40.5	0.2	77.5	93.9		63.0
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		95.4	29.8	2.1		86.0	40.5	0.2	77.5	93.9		63.0

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	141	150
Future Volume (vph)	141	150
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Satd. Flow (prot)	1625	0
Flt Permitted		
Satd. Flow (perm)	1625	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	33	
Link Speed (mph)	45	
Link Distance (ft)	1080	
Travel Time (s)	16.4	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	9%	9%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	313	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	7.0	
Minimum Split (s)	24.6	
Total Split (s)	40.0	
Total Split (%)	26.7%	
Yellow Time (s)	4.7	
All-Red Time (s)	1.9	
Lost Time Adjust (s)	-1.6	
Total Lost Time (s)	5.0	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Recall Mode	None	
Act Effct Green (s)	30.7	
Actuated g/C Ratio	0.20	
v/c Ratio	0.87	
Control Delay (s/veh)	75.3	
Queue Delay	0.0	
Total Delay (s/veh)	75.3	

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		F	C	A		F	D	A	E	F		E
Approach Delay (s/veh)			33.8				37.8			86.9		
Approach LOS			C				D			F		
Queue Length 50th (ft)		129	338	0		59	547	0	134	184		195
Queue Length 95th (ft)		#243	413	30		113	613	0	212	#312		281
Internal Link Dist (ft)			943				959			1011		
Turn Bay Length (ft)		850		550		125		175	165			400
Base Capacity (vph)		178	1678	1059		118	2162	1544	229	240		390
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.76	0.53	0.14		0.53	0.78	0.13	0.62	0.81		0.56

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay (s/veh): 45.1		Intersection LOS: D	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			
Description: 04-1086			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Shotwell Rd & US 70 BUS



Lane Group	SBT	SBR
LOS	E	
Approach Delay (s/veh)	70.2	
Approach LOS	E	
Queue Length 50th (ft)	266	
Queue Length 95th (ft)	#388	
Internal Link Dist (ft)	1000	
Turn Bay Length (ft)		
Base Capacity (vph)	404	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.77	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	33	1366	230	15	155	930	59	145	12	224	75	10
Future Volume (vph)	33	1366	230	15	155	930	59	145	12	224	75	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%				-4%			0%			-2%
Storage Length (ft)	200		600		450		130	200		0	0	
Storage Lanes	1		1		2		1	1		0	1	
Taper Length (ft)	300				125			100			25	
Satd. Flow (prot)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			235				82		172			11
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1681				1007			1019			1004
Travel Time (s)		20.8				12.5			27.8			27.4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	1394	235	0	173	949	60	148	241	0	77	21
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0
Minimum Split (s)	13.5	21.1	14.7	14.3	14.3	21.1	13.5	14.7	14.0		13.5	14.0
Total Split (s)	15.0	90.0	25.0	15.0	15.0	90.0	25.0	25.0	20.0		25.0	20.0
Total Split (%)	10.0%	60.0%	16.7%	10.0%	10.0%	60.0%	16.7%	16.7%	13.3%		16.7%	13.3%
Yellow Time (s)	4.0	5.1	4.0	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.5	2.0	3.7	3.3	3.3	2.0	2.5	3.7	3.0		2.5	3.0
Lost Time Adjust (s)	-1.5	-2.1	-2.7		-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None	None		None	None
Act Effct Green (s)	9.2	90.0	114.9		12.3	95.8	114.1	19.9	14.4		13.3	13.4
Actuated g/C Ratio	0.06	0.60	0.77		0.08	0.64	0.76	0.13	0.10		0.09	0.09
v/c Ratio	0.32	0.67	0.19		0.61	0.42	0.05	0.33	0.78		0.49	0.13
Control Delay (s/veh)	75.5	22.9	1.1		76.2	15.6	0.6	62.2	37.7		74.7	39.4
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	75.5	22.9	1.1		76.2	15.6	0.6	62.2	37.7		74.7	39.4



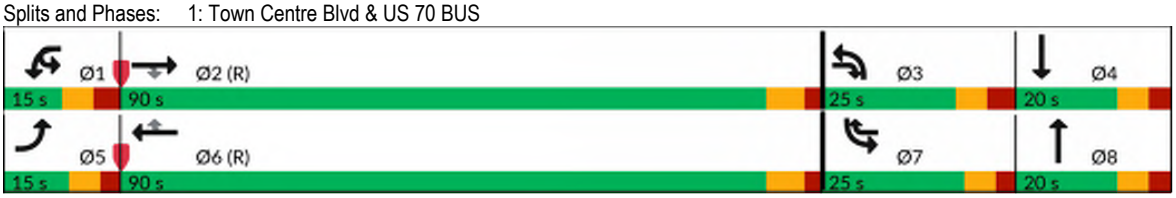
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	80
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.98
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
LOS	E	C	A		E	B	A	E	D		E	D
Approach Delay (s/veh)		20.9				23.7			47.0			67.1
Approach LOS		C				C			D			E
Queue Length 50th (ft)	33	492	0		84	243	0	71	65		73	9
Queue Length 95th (ft)	71	587	23		#141	332	7	106	165		126	37
Internal Link Dist (ft)		1601				927			939			924
Turn Bay Length (ft)	200		600		450		130	200				
Base Capacity (vph)	115	2081	1263		284	2284	1304	504	327		238	194
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	0.30	0.67	0.19		0.61	0.42	0.05	0.29	0.74		0.32	0.11

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay (s/veh): 26.3 Intersection LOS: C
Intersection Capacity Utilization 80.6% ICU Level of Service D
Analysis Period (min) 15
Description: 04-1292
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Town Centre Blvd & US 70 BUS





Lane Group	SBR
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1642	35	189	1163	4	0	0	227	0	0	4
Future Volume (vph)	4	1642	35	189	1163	4	0	0	227	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			1273			1033			501	
Travel Time (s)		12.5			15.8			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	1693	36	195	1203	0	0	0	234	0	0	4
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1642	35	189	1163	4	0	0	227	0	0	4
Future Vol, veh/h	4	1642	35	189	1163	4	0	0	227	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1693	36	195	1199	4	0	0	234	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1203	0	0	1729	0	0	-	-	846	-	-	602
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	576	-	-	361	-	-	0	0	306	0	0	443
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	576	-	-	361	-	-	-	-	306	-	-	443
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	3.63	46.79	13.2
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	306	576	-	-	361	-	-	443
HCM Lane V/C Ratio	0.766	0.007	-	-	0.54	-	-	0.009
HCM Control Delay (s/veh)	46.8	11.3	-	-	26.1	-	-	13.2
HCM Lane LOS	E	B	-	-	D	-	-	B
HCM 95th %tile Q(veh)	5.9	0	-	-	3.1	-	-	0

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	33	1776	23	21	16	1287	39	0	0	40	0	0
Future Volume (vph)	33	1776	23	21	16	1287	39	0	0	40	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	200		150		150		200	0		0	0	
Storage Lanes	1		1		1		1	0		1	0	
Taper Length (ft)	200				200			25			25	
Satd. Flow (prot)	1770	3539	1583	0	1752	3505	1568	0	0	1611	0	0
Flt Permitted	0.950				0.950							
Satd. Flow (perm)	1770	3539	1583	0	1752	3505	1568	0	0	1611	0	0
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1273				552			1016			1086
Travel Time (s)		15.8				6.8			27.7			29.6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	1850	24	0	39	1341	41	0	0	42	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	59.1%	ICU Level of Service B	
Analysis Period (min)	15		



Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	65
Future Volume (vph)	65
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.96
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	68
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	33	1776	23	21	16	1287	39	0	0	40	0	0	65
Future Vol, veh/h	33	1776	23	21	16	1287	39	0	0	40	0	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	200	-	150	-	150	-	200	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	3	2	2	2	2	2	2
Mvmt Flow	34	1850	24	22	17	1341	41	0	0	42	0	0	68

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	1381	0	0	1850	1874	0	0	-	-	925	-	-	670
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	6.46	4.16	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.53	2.23	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	492	-	-	92	313	-	-	0	0	271	0	0	399
Stage 1	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	492	-	-	115	115	-	-	-	-	271	-	-	399
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.23	1.39	20.69	15.85
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	492	-	-	115	-	-	399
HCM Lane V/C Ratio	0.154	0.07	-	-	0.334	-	-	0.17
HCM Control Delay (s/veh)	20.7	12.9	-	-	51.2	-	-	15.8
HCM Lane LOS	C	B	-	-	F	-	-	C
HCM 95th %tile Q(veh)	0.5	0.2	-	-	1.3	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1340	4	0	5	0	0	0	4
Future Volume (vph)	0	0	0	0	1340	4	0	5	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3505	1568	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3505	1568	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			25	
Link Distance (ft)		458			207			216			1026	
Travel Time (s)		5.7			2.6			2.7			28.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1396	4	0	5	0	0	0	4
Sign Control		Stop			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↱		↑				↱
Traffic Vol, veh/h	0	0	0	0	1340	4	0	5	0	0	0	4
Future Vol, veh/h	0	0	0	0	1340	4	0	5	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1396	4	0	5	0	0	0	4

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	698
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	383
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	383
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	14.5
HCM LOS		B

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	383
HCM Lane V/C Ratio	-	-	0.011
HCM Control Delay (s/veh)	-	-	14.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	24	129	1445	177	42	107	1110	202	148	162	54	205
Future Volume (vph)	24	129	1445	177	42	107	1110	202	148	162	54	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		850		550		125		175	165		0	400
Storage Lanes		1		1		1		1	1		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	1787	3575	1599	0	1743	5009	1560	1752	1774	0	1770
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	1787	3575	1599	0	1743	5009	1560	1752	1774	0	1770
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				182				160		9		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1023				1039			1091		
Travel Time (s)			15.5				15.7			21.3		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	158	1490	182	0	153	1144	208	153	223	0	211
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	Free	Split	NA		Split
Protected Phases	5	5	2	3	1	1	6		3	3		4
Permitted Phases				2				Free				
Detector Phase	5	5	2	3	1	1	6		3	3		4
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.3	13.3	23.7	13.2	13.5	13.5	23.6		13.2	13.2		24.6
Total Split (s)	25.0	25.0	75.0	25.0	20.0	20.0	70.0		25.0	25.0		30.0
Total Split (%)	16.7%	16.7%	50.0%	16.7%	13.3%	13.3%	46.7%		16.7%	16.7%		20.0%
Yellow Time (s)	3.0	3.0	4.7	3.7	3.0	3.0	4.3		3.7	3.7		4.7
All-Red Time (s)	3.3	3.3	1.0	2.5	3.5	3.5	1.3		2.5	2.5		1.9
Lost Time Adjust (s)		-1.3	-0.7	-1.2		-1.5	-0.6		-1.2	-1.2		-1.6
Total Lost Time (s)		5.0	5.0	5.0		5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max	None	None	None	C-Max		None	None		None
Act Effct Green (s)		17.5	71.3	96.0		14.9	68.7	150.0	19.7	19.7		24.1
Actuated g/C Ratio		0.12	0.48	0.64		0.10	0.46	1.00	0.13	0.13		0.16
v/c Ratio		0.76	0.88	0.17		0.89	0.50	0.13	0.67	0.93		0.74
Control Delay (s/veh)		86.7	42.9	1.7		110.0	30.1	0.2	76.8	102.5		76.2
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		86.7	42.9	1.7		110.0	30.1	0.2	76.8	102.5		76.2

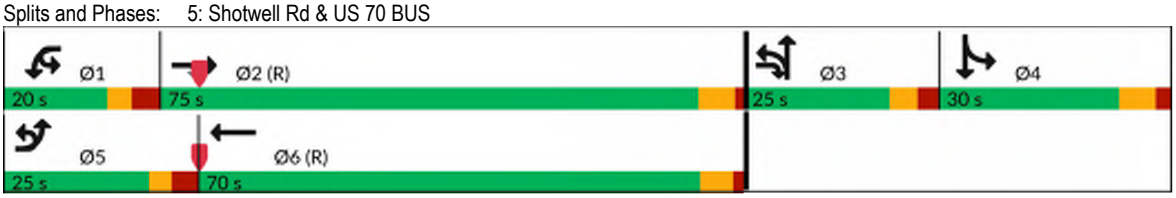
Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	156	105
Future Volume (vph)	156	105
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Satd. Flow (prot)	1751	0
Flt Permitted		
Satd. Flow (perm)	1751	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	19	
Link Speed (mph)	45	
Link Distance (ft)	1080	
Travel Time (s)	16.4	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.97	0.97
Growth Factor	100%	100%
Heavy Vehicles (%)	3%	3%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	269	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	7.0	
Minimum Split (s)	24.6	
Total Split (s)	30.0	
Total Split (%)	20.0%	
Yellow Time (s)	4.7	
All-Red Time (s)	1.9	
Lost Time Adjust (s)	-1.6	
Total Lost Time (s)	5.0	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Recall Mode	None	
Act Effct Green (s)	24.1	
Actuated g/C Ratio	0.16	
v/c Ratio	0.91	
Control Delay (s/veh)	89.9	
Queue Delay	0.0	
Total Delay (s/veh)	89.9	

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		F	D	A		F	C	A	E	F		E
Approach Delay (s/veh)			42.6				34.1			92.0		
Approach LOS			D				C			F		
Queue Length 50th (ft)		151	691	0		150	293	0	144	210		198
Queue Length 95th (ft)		231	802	29		#286	343	0	226	#373		293
Internal Link Dist (ft)			943				959			1011		
Turn Bay Length (ft)		850		550		125		175	165			400
Base Capacity (vph)		238	1698	1091		174	2292	1560	233	244		295
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.66	0.88	0.17		0.88	0.50	0.13	0.66	0.91		0.72

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay (s/veh): 48.7 Intersection LOS: D
Intersection Capacity Utilization 88.0% ICU Level of Service E
Analysis Period (min) 15
Description: 04-1086
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Shotwell Rd & US 70 BUS



Lane Group	SBT	SBR
LOS	F	
Approach Delay (s/veh)	83.9	
Approach LOS	F	
Queue Length 50th (ft)	243	
Queue Length 95th (ft)	#405	
Internal Link Dist (ft)	1000	
Turn Bay Length (ft)		
Base Capacity (vph)	307	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.88	

Intersection Summary

Appendix H:
Synchro Output:
Background (2030)

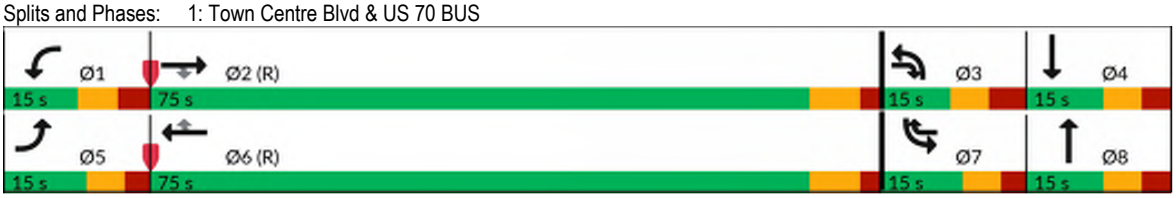
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	871	64	62	1446	99	181	10	61	58	6	21
Future Volume (vph)	21	871	64	62	1446	99	181	10	61	58	6	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-4%			0%			-2%	
Storage Length (ft)	200		600	450		130	200		0	0		80
Storage Lanes	1		1	2		1	1		0	1		1
Taper Length (ft)	300			125			100			25		
Satd. Flow (prot)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103			103		69			24	
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1681			1007			1019			1004	
Travel Time (s)		20.8			12.5			27.8			27.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	979	72	70	1625	111	203	80	0	65	31	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6						
Detector Phase	5	2	3	1	6	7	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.5	21.1	14.7	14.3	21.1	13.5	14.7	14.0		13.5	14.0	
Total Split (s)	15.0	75.0	15.0	15.0	75.0	15.0	15.0	15.0		15.0	15.0	
Total Split (%)	12.5%	62.5%	12.5%	12.5%	62.5%	12.5%	12.5%	12.5%		12.5%	12.5%	
Yellow Time (s)	4.0	5.1	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.0	3.7	3.3	2.0	2.5	3.7	3.0		2.5	3.0	
Lost Time Adjust (s)	-1.5	-2.1	-2.7	-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None	None	None		None	None	
Act Effct Green (s)	8.8	76.6	95.3	9.7	80.0	96.0	12.7	9.4		9.9	9.4	
Actuated g/C Ratio	0.07	0.64	0.79	0.08	0.67	0.80	0.11	0.08		0.08	0.08	
v/c Ratio	0.20	0.46	0.06	0.25	0.69	0.09	0.56	0.42		0.44	0.20	
Control Delay (s/veh)	56.0	13.7	0.5	54.0	16.6	1.3	58.0	22.7		62.4	27.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	56.0	13.7	0.5	54.0	16.6	1.3	58.0	22.7		62.4	27.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	B	A	D	B	A	E	C		E	C	
Approach Delay (s/veh)		13.7			17.1			48.0			51.0	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	18	218	0	26	455	2	80	8		49	5	
Queue Length 95th (ft)	46	273	6	50	569	17	#126	56		95	36	
Internal Link Dist (ft)		1601			927			939			924	
Turn Bay Length (ft)	200		600	450		130	200					
Base Capacity (vph)	137	2109	1195	287	2361	1288	364	198		148	160	
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	0.18	0.46	0.06	0.24	0.69	0.09	0.56	0.40		0.44	0.19	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay (s/veh): 19.7 Intersection LOS: B
Intersection Capacity Utilization 60.1% ICU Level of Service B
Analysis Period (min) 15
Description: 04-1292
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Town Centre Blvd & US 70 BUS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	882	130	384	1609	4	0	0	294	0	0	4
Future Volume (vph)	4	882	130	384	1609	4	0	0	294	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			1273			1033			501	
Travel Time (s)		12.5			15.8			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	1161	171	505	2122	0	0	0	387	0	0	5
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	11.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	882	130	384	1609	4	0	0	294	0	0	4
Future Vol, veh/h	4	882	130	384	1609	4	0	0	294	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1161	171	505	2117	5	0	0	387	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2122	0	0	1332	0	0	-	-	580	-	-	1061
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.24	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.27	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	236	-	-	514	-	-	0	0	457	0	0	220
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	236	-	-	514	-	-	-	-	457	-	-	220
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.08	12.29	42.94	21.78
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	457	236	-	-	514	-	-	220
HCM Lane V/C Ratio	0.846	0.022	-	-	0.983	-	-	0.024
HCM Control Delay (s/veh)	42.9	20.6	-	-	63.9	-	-	21.8
HCM Lane LOS	E	C	-	-	F	-	-	C
HCM 95th %tile Q(veh)	8.4	0.1	-	-	13.2	-	-	0.1

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	35	1176	4	23	4	1967	78	0	0	4	0	0
Future Volume (vph)	35	1176	4	23	4	1967	78	0	0	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	200		150		150		200	0		0	0	
Storage Lanes	1		1		1		1	0		1	0	
Taper Length (ft)	200				200			25			25	
Satd. Flow (prot)	1687	3374	1509	0	1736	3471	1553	0	0	1611	0	0
Flt Permitted	0.950				0.950							
Satd. Flow (perm)	1687	3374	1509	0	1736	3471	1553	0	0	1611	0	0
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1273				552			1016			1086
Travel Time (s)		15.8				6.8			27.7			29.6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	4%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	1384	5	0	32	2314	92	0	0	5	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.1%		ICU Level of Service C	
Analysis Period (min) 15			



Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	65
Future Volume (vph)	65
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.85
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	76
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	35	1176	4	23	4	1967	78	0	0	4	0	0	65
Future Vol, veh/h	35	1176	4	23	4	1967	78	0	0	4	0	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	200	-	150	-	150	-	200	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	7	7	7	4	4	4	4	2	2	2	2	2	2
Mvmt Flow	41	1384	5	27	5	2314	92	0	0	5	0	0	76

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	2406	0	0	1384	1388	0	0	-	-	692	-	-	1157
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.24	-	-	6.48	4.18	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.27	-	-	2.54	2.24	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	181	-	-	184	479	-	-	0	0	387	0	0	190
Stage 1	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	181	-	-	200	200	-	-	-	-	387	-	-	190
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.88	0.34	14.43	36.27
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	387	181	-	-	200	-	-	190
HCM Lane V/C Ratio	0.012	0.227	-	-	0.159	-	-	0.403
HCM Control Delay (s/veh)	14.4	30.6	-	-	26.4	-	-	36.3
HCM Lane LOS	B	D	-	-	D	-	-	E
HCM 95th %tile Q(veh)	0	0.8	-	-	0.6	-	-	1.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	2067	4	0	4	0	0	0	4
Future Volume (vph)	0	0	0	0	2067	4	0	4	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3471	1553	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3471	1553	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			25	
Link Distance (ft)		458			229			177			1026	
Travel Time (s)		5.7			2.8			2.2			28.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2461	5	0	5	0	0	0	5
Sign Control		Stop			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 67.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↱		↑				↱
Traffic Vol, veh/h	0	0	0	0	2067	4	0	4	0	0	0	4
Future Vol, veh/h	0	0	0	0	2067	4	0	4	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	2461	5	0	5	0	0	0	5

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	1230
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	169
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	169
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	26.89
HCM LOS		D

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	169
HCM Lane V/C Ratio	-	-	0.028
HCM Control Delay (s/veh)	-	-	26.9
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	25	113	906	157	15	49	1735	206	147	173	25	225
Future Volume (vph)	25	113	906	157	15	49	1735	206	147	173	25	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		435		510		350		150	130		0	350
Storage Lanes		2		1		1		1	2		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	3337	3440	1539	0	1726	4960	1544	3333	1774	0	1673
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3337	3440	1539	0	1726	4960	1544	3333	1774	0	1673
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				273				273		4		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1000				1039			1091		
Travel Time (s)			15.2				15.7			21.3		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%	3%	3%	4%	4%	4%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	974	169	0	69	1866	222	158	213	0	242
Turn Type	Prot	Prot	NA	Free	Prot	Prot	NA	Free	Prot	NA		Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				Free				Free				
Detector Phase	5	5	2		1	1	6		3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0		7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.9	13.9	18.4		14.3	14.3	18.5		13.9	13.8		13.3
Total Split (s)	15.0	15.0	80.0		15.0	15.0	80.0		20.0	25.0		30.0
Total Split (%)	10.0%	10.0%	53.3%		10.0%	10.0%	53.3%		13.3%	16.7%		20.0%
Yellow Time (s)	3.0	3.0	4.7		3.0	3.0	4.3		3.0	3.7		3.0
All-Red Time (s)	3.9	3.9	1.7		4.3	4.3	2.2		3.9	3.1		3.3
Lost Time Adjust (s)		-1.9	-1.4			-2.3	-1.5		-1.9	-1.8		-1.3
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lead		Lag	Lag	Lag		Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None		None
Act Effct Green (s)		9.9	76.3	150.0		10.0	76.3	150.0	13.0	19.6		24.1
Actuated g/C Ratio		0.07	0.51	1.00		0.07	0.51	1.00	0.09	0.13		0.16
v/c Ratio		0.68	0.56	0.11		0.60	0.74	0.14	0.55	0.90		0.90
Control Delay (s/veh)		84.2	27.1	0.1		89.6	31.5	0.2	72.7	100.6		96.1
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		84.2	27.1	0.1		89.6	31.5	0.2	72.7	100.6		96.1

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	156	166
Future Volume (vph)	156	166
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		350
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	1761	1496
Flt Permitted		
Satd. Flow (perm)	1761	1496
Right Turn on Red		Yes
Satd. Flow (RTOR)		178
Link Speed (mph)	45	
Link Distance (ft)	1080	
Travel Time (s)	16.4	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	9%	9%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	168	178
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.7	13.7
Total Split (s)	35.0	35.0
Total Split (%)	23.3%	23.3%
Yellow Time (s)	4.7	4.7
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	-1.7	-1.7
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	30.7	30.7
Actuated g/C Ratio	0.20	0.20
v/c Ratio	0.47	0.40
Control Delay (s/veh)	57.4	9.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	57.4	9.3

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		F	C	A		F	C	A	E	F		F
Approach Delay (s/veh)			30.1				30.1			88.7		
Approach LOS			C				C			F		
Queue Length 50th (ft)		74	343	0		67	525	0	77	204		234
Queue Length 95th (ft)		113	409	0		#131	584	0	115	#359		#387
Internal Link Dist (ft)			920				959			1011		
Turn Bay Length (ft)		435		510		350		150	130			350
Base Capacity (vph)		222	1749	1539		115	2524	1544	333	240		278
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.67	0.56	0.11		0.60	0.74	0.14	0.47	0.89		0.87

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 145 (97%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay (s/veh): 38.9 Intersection LOS: D
Intersection Capacity Utilization 79.1% ICU Level of Service D
Analysis Period (min) 15
Description: 04-1086
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Shotwell Rd & US 70 BUS



Lane Group	SBT	SBR
LOS	E	A
Approach Delay (s/veh)	58.8	
Approach LOS	E	
Queue Length 50th (ft)	145	0
Queue Length 95th (ft)	225	67
Internal Link Dist (ft)	1000	
Turn Bay Length (ft)		350
Base Capacity (vph)	363	449
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.46	0.40

Intersection Summary

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	33	1508	230	17	155	1027	59	145	12	224	75	10
Future Volume (vph)	33	1508	230	17	155	1027	59	145	12	224	75	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%				-4%			0%			-2%
Storage Length (ft)	200		600		450		130	200		0	0	
Storage Lanes	1		1		2		1	1		0	1	
Taper Length (ft)	300				125			100			25	
Satd. Flow (prot)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			235				81		181			11
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1681				1007			1019			1004
Travel Time (s)		20.8				12.5			27.8			27.4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	1539	235	0	175	1048	60	148	241	0	77	21
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0
Minimum Split (s)	13.5	21.1	14.7	14.3	14.3	21.1	13.5	14.7	14.0		13.5	14.0
Total Split (s)	15.0	90.0	20.0	20.0	20.0	95.0	20.0	20.0	20.0		20.0	20.0
Total Split (%)	10.0%	60.0%	13.3%	13.3%	13.3%	63.3%	13.3%	13.3%	13.3%		13.3%	13.3%
Yellow Time (s)	4.0	5.1	4.0	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.5	2.0	3.7	3.3	3.3	2.0	2.5	3.7	3.0		2.5	3.0
Lost Time Adjust (s)	-1.5	-2.1	-2.7		-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None	None		None	None
Act Effct Green (s)	9.2	89.7	116.2		15.0	98.2	115.9	21.5	12.6		12.7	9.4
Actuated g/C Ratio	0.06	0.60	0.77		0.10	0.65	0.77	0.14	0.08		0.08	0.06
v/c Ratio	0.32	0.74	0.19		0.51	0.45	0.05	0.30	0.80		0.51	0.18
Control Delay (s/veh)	75.6	25.4	1.0		69.5	14.6	0.6	60.0	38.5		77.2	45.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	75.6	25.4	1.0		69.5	14.6	0.6	60.0	38.5		77.2	45.0



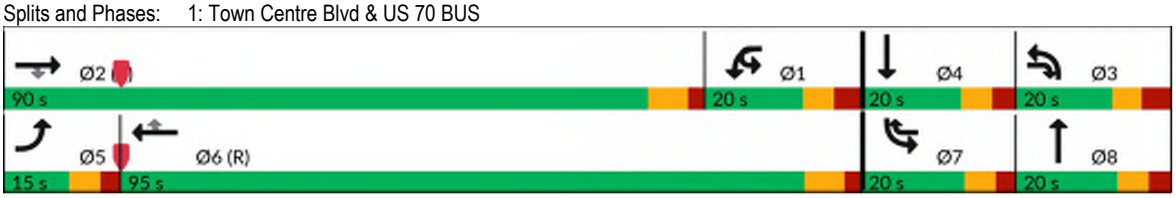
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	80
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.98
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
LOS	E	C	A		E	B	A	E	D		E	D
Approach Delay (s/veh)		23.2				21.5			46.7			70.3
Approach LOS		C				C			D			E
Queue Length 50th (ft)	33	570	0		85	272	0	69	56		73	9
Queue Length 95th (ft)	71	694	23		126	346	7	105	#171		129	39
Internal Link Dist (ft)		1601				927			939			924
Turn Bay Length (ft)	200		600		450		130	200				
Base Capacity (vph)	115	2073	1254		346	2340	1277	492	322		178	183
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	0.30	0.74	0.19		0.51	0.45	0.05	0.30	0.75		0.43	0.11

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 147 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay (s/veh): 26.4 Intersection LOS: C
Intersection Capacity Utilization 84.5% ICU Level of Service E
Analysis Period (min) 15
Description: 04-1292
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Town Centre Blvd & US 70 BUS





Lane Group	SBR
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1813	35	189	1284	4	0	0	227	0	0	4
Future Volume (vph)	4	1813	35	189	1284	4	0	0	227	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			1273			1033			501	
Travel Time (s)		12.5			15.8			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	1869	36	195	1328	0	0	0	234	0	0	4
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1813	35	189	1284	4	0	0	227	0	0	4
Future Vol, veh/h	4	1813	35	189	1284	4	0	0	227	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1869	36	195	1324	4	0	0	234	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1328	0	0	1905	0	0	-	-	935	-	-	664
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	516	-	-	308	-	-	0	0	267	0	0	403
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	516	-	-	308	-	-	-	-	267	-	-	403
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	4.45	68.72	14.02
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	267	516	-	-	308	-	-	403
HCM Lane V/C Ratio	0.876	0.008	-	-	0.632	-	-	0.01
HCM Control Delay (s/veh)	68.7	12	-	-	34.8	-	-	14
HCM Lane LOS	F	B	-	-	D	-	-	B
HCM 95th %tile Q(veh)	7.5	0	-	-	4	-	-	0

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	36	1961	23	23	16	1421	43	0	0	40	0	0
Future Volume (vph)	36	1961	23	23	16	1421	43	0	0	40	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	200		150		150		200	0		0	0	
Storage Lanes	1		1		1		1	0		1	0	
Taper Length (ft)	200				200			25			25	
Satd. Flow (prot)	1770	3539	1583	0	1752	3505	1568	0	0	1611	0	0
Flt Permitted	0.950				0.950							
Satd. Flow (perm)	1770	3539	1583	0	1752	3505	1568	0	0	1611	0	0
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1273				552			1016			1086
Travel Time (s)		15.8				6.8			27.7			29.6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	2043	24	0	41	1480	45	0	0	42	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			



Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	72
Future Volume (vph)	72
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.96
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	75
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	36	1961	23	23	16	1421	43	0	0	40	0	0	72
Future Vol, veh/h	36	1961	23	23	16	1421	43	0	0	40	0	0	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	200	-	150	-	150	-	200	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	3	2	2	2	2	2	2
Mvmt Flow	38	2043	24	24	17	1480	45	0	0	42	0	0	75

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	1525	0	0	2043	2067	0	0	-	-	1021	-	-	740
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	6.46	4.16	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.53	2.23	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	433	-	-	69	263	-	-	0	0	234	0	0	359
Stage 1	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	433	-	-	83	83	-	-	-	-	234	-	-	359
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.25	2.18	23.72	17.65
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	234	433	-	-	83	-	-	359
HCM Lane V/C Ratio	0.178	0.087	-	-	0.488	-	-	0.209
HCM Control Delay (s/veh)	23.7	14.1	-	-	84.1	-	-	17.6
HCM Lane LOS	C	B	-	-	F	-	-	C
HCM 95th %tile Q(veh)	0.6	0.3	-	-	2.1	-	-	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1479	4	0	6	0	0	0	4
Future Volume (vph)	0	0	0	0	1479	4	0	6	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3505	1568	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3505	1568	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			25	
Link Distance (ft)		458			298			180			1026	
Travel Time (s)		5.7			3.7			2.2			28.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1541	4	0	6	0	0	0	4
Sign Control		Stop			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	58.5%	ICU Level of Service B	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↱		↑				↱
Traffic Vol, veh/h	0	0	0	0	1479	4	0	6	0	0	0	4
Future Vol, veh/h	0	0	0	0	1479	4	0	6	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1541	4	0	6	0	0	0	4

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	770
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	343
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	343
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	15.62
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	343
HCM Lane V/C Ratio	-	-	0.012
HCM Control Delay (s/veh)	-	-	15.6
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	26	142	1595	195	46	118	1226	223	163	179	60	226
Future Volume (vph)	26	142	1595	195	46	118	1226	223	163	179	60	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		435		510		350		150	130		0	350
Storage Lanes		2		1		1		1	2		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	3467	3575	1599	0	1743	5009	1560	3399	1774	0	1770
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3467	3575	1599	0	1743	5009	1560	3399	1774	0	1770
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				178				178		9		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1000				1039			1091		
Travel Time (s)			15.2				15.7			21.3		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	1644	201	0	169	1264	230	168	247	0	233
Turn Type	Prot	Prot	NA	Free	Prot	Prot	NA	Free	Prot	NA		Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				Free				Free				
Detector Phase	5	5	2		1	1	6		3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0		7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.9	13.9	18.4		14.3	14.3	18.5		13.9	13.8		13.3
Total Split (s)	20.0	20.0	85.0		20.0	20.0	85.0		20.0	25.0		20.0
Total Split (%)	13.3%	13.3%	56.7%		13.3%	13.3%	56.7%		13.3%	16.7%		13.3%
Yellow Time (s)	3.0	3.0	4.7		3.0	3.0	4.3		3.0	3.7		3.0
All-Red Time (s)	3.9	3.9	1.7		4.3	4.3	2.2		3.9	3.1		3.3
Lost Time Adjust (s)		-1.9	-1.4			-2.3	-1.5		-1.9	-1.8		-1.3
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None		None
Act Effct Green (s)		13.2	80.0	150.0		15.0	81.8	150.0	13.2	20.0		15.0
Actuated g/C Ratio		0.09	0.53	1.00		0.10	0.55	1.00	0.09	0.13		0.10
v/c Ratio		0.57	0.86	0.13		0.97	0.46	0.15	0.56	1.01		1.32
Control Delay (s/veh)		72.8	36.2	0.2		127.0	21.6	0.2	72.9	121.4		226.1
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		72.8	36.2	0.2		127.0	21.6	0.2	72.9	121.4		226.1

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	172	116
Future Volume (vph)	172	116
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		350
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	1863	1584
Flt Permitted		
Satd. Flow (perm)	1863	1584
Right Turn on Red		Yes
Satd. Flow (RTOR)		129
Link Speed (mph)	45	
Link Distance (ft)	1080	
Travel Time (s)	16.4	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.97	0.97
Growth Factor	100%	100%
Heavy Vehicles (%)	3%	3%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	177	120
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.7	13.7
Total Split (s)	25.0	25.0
Total Split (%)	16.7%	16.7%
Yellow Time (s)	4.7	4.7
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	-1.7	-1.7
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	21.8	21.8
Actuated g/C Ratio	0.15	0.15
v/c Ratio	0.66	0.35
Control Delay (s/veh)	73.4	10.5
Queue Delay	0.0	0.0
Total Delay (s/veh)	73.4	10.5

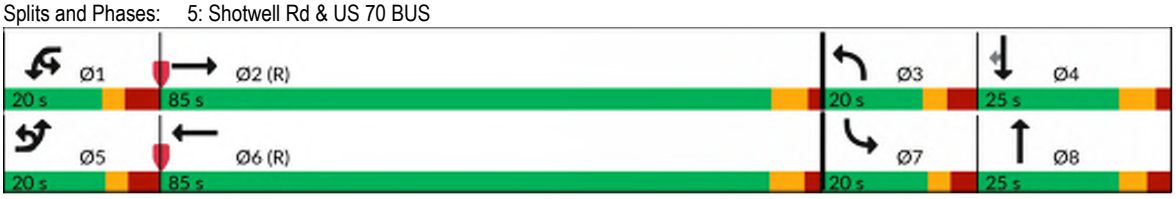
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		E	D	A		F	C	A	E	F		F
Approach Delay (s/veh)			35.8				29.4			101.7		
Approach LOS			D				C			F		
Queue Length 50th (ft)		85	712	0		168	269	0	82	~241		~293
Queue Length 95th (ft)		124	823	0		#324	315	0	121	#430		#470
Internal Link Dist (ft)			920				959			1011		
Turn Bay Length (ft)		435		510		350		150	130			350
Base Capacity (vph)		346	1906	1599		174	2730	1560	339	244		177
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.50	0.86	0.13		0.97	0.46	0.15	0.50	1.01		1.32

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.32			
Intersection Signal Delay (s/veh): 49.8		Intersection LOS: D	
Intersection Capacity Utilization 95.4%		ICU Level of Service F	
Analysis Period (min) 15			
Description: 04-1086			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

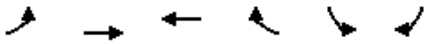
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Shotwell Rd & US 70 BUS



Lane Group	SBT	SBR
LOS	E	B
Approach Delay (s/veh)	126.3	
Approach LOS	F	
Queue Length 50th (ft)	167	0
Queue Length 95th (ft)	#267	52
Internal Link Dist (ft)	1000	
Turn Bay Length (ft)		350
Base Capacity (vph)	270	340
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.66	0.35

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	6	1996	0	0	0	0
Future Volume (vph)	6	1996	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	20			0	0	0
Storage Lanes	1			0	0	0
Taper Length (ft)	150				25	
Satd. Flow (prot)	1770	3539	0	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	3539	0	0	0	0
Link Speed (mph)		55	55		55	
Link Distance (ft)		286	186		180	
Travel Time (s)		3.5	2.3		2.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.90	0.90	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	2079	0	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.5%		ICU Level of Service B	
Analysis Period (min) 15			

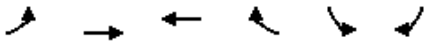
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	0	1202	0	1481	0	0
Future Volume (vph)	0	1202	0	1481	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		2	0		0	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	0	2787	0	3505	0	0
Flt Permitted						
Satd. Flow (perm)	0	2787	0	3505	0	0
Link Speed (mph)	55			55	55	
Link Distance (ft)	552			458	286	
Travel Time (s)	6.8			5.7	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1252	0	1543	0	0
Sign Control	Free			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	4	1480	0	0
Future Volume (vph)	0	0	4	1480	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	130		0	0
Storage Lanes		0	1		0	0
Taper Length (ft)			100		25	
Satd. Flow (prot)	0	0	1752	3505	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	1752	3505	0	0
Link Speed (mph)	55			55	55	
Link Distance (ft)	298			929	283	
Travel Time (s)	3.7			11.5	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.96	0.96	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	4	1542	0	0
Sign Control	Free			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1996	0	0	4	0
Future Volume (vph)	0	1996	0	0	4	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	3539	0	0	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3539	0	0	1770	0
Link Speed (mph)		55	55		55	
Link Distance (ft)		186	1209		283	
Travel Time (s)		2.3	15.0		3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.90	0.90	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	2079	0	0	5	0
Sign Control		Free	Free		Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	0	1996	0	1480	0	0
Future Volume (vph)	0	1996	0	1480	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			2	0	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	3539	0	2760	0	0
Flt Permitted						
Satd. Flow (perm)	0	3539	0	2760	0	0
Link Speed (mph)		55	55		55	
Link Distance (ft)		1209	683		929	
Travel Time (s)		15.0	8.5		11.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	2079	0	1542	0	0
Sign Control		Free	Free		Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			

Appendix I:

Synchro Output:

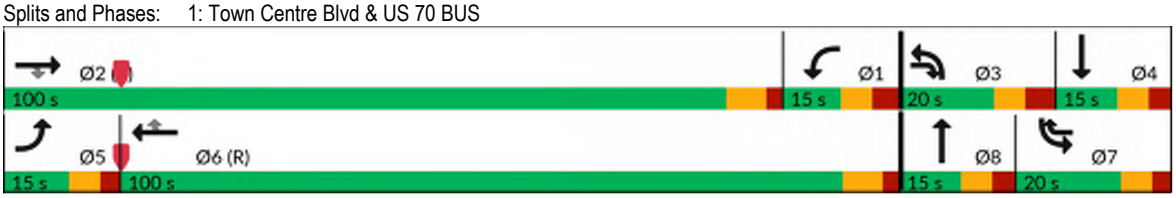
Build-Out (2030) – Access Scenario #1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	936	64	62	1506	99	190	10	61	58	6	21
Future Volume (vph)	21	936	64	62	1506	99	190	10	61	58	6	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-4%			0%			-2%	
Storage Length (ft)	200		600	450		130	200		0	0		80
Storage Lanes	1		1	2		1	1		0	1		1
Taper Length (ft)	300			125			100			25		
Satd. Flow (prot)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			76		69			24	
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1681			1007			1019			1004	
Travel Time (s)		20.8			12.5			27.8			27.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	1052	72	70	1692	111	213	80	0	65	31	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6						
Detector Phase	5	2	3	1	6	7	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.5	21.1	14.7	14.3	21.1	13.5	14.7	14.0		13.5	14.0	
Total Split (s)	15.0	100.0	20.0	15.0	100.0	20.0	20.0	15.0		20.0	15.0	
Total Split (%)	10.0%	66.7%	13.3%	10.0%	66.7%	13.3%	13.3%	10.0%		13.3%	10.0%	
Yellow Time (s)	4.0	5.1	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.0	3.7	3.3	2.0	2.5	3.7	3.0		2.5	3.0	
Lost Time Adjust (s)	-1.5	-2.1	-2.7	-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lead	Lag	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None	None	None		None	None	
Act Effct Green (s)	9.0	100.9	122.3	9.9	104.4	119.0	18.4	9.4		12.7	9.3	
Actuated g/C Ratio	0.06	0.67	0.82	0.07	0.70	0.79	0.12	0.06		0.08	0.06	
v/c Ratio	0.24	0.47	0.06	0.31	0.69	0.09	0.51	0.48		0.43	0.25	
Control Delay (s/veh)	73.4	13.6	0.5	62.1	8.4	0.5	67.2	28.6		73.5	34.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	73.4	13.6	0.5	62.1	8.4	0.5	67.2	28.6		73.5	34.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	B	A	E	A	A	E	C		E	C	
Approach Delay (s/veh)		14.0			10.0			56.7			60.8	
Approach LOS		B			A			E			E	
Queue Length 50th (ft)	23	271	0	37	424	4	104	10		60	7	
Queue Length 95th (ft)	54	323	4	m41	m500	m6	148	64		111	42	
Internal Link Dist (ft)		1601			927			939			924	
Turn Bay Length (ft)	200		600	450		130	200					
Base Capacity (vph)	110	2224	1221	228	2463	1272	421	172		178	133	
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	0.22	0.47	0.06	0.31	0.69	0.09	0.51	0.47		0.37	0.23	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 71 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 16.8	Intersection LOS: B
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	
Description: 04-1292	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 1: Town Centre Blvd & US 70 BUS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	944	133	384	1669	4	0	0	294	0	0	4
Future Volume (vph)	4	944	133	384	1669	4	0	0	294	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			666			1033			501	
Travel Time (s)		12.5			8.3			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	1242	175	505	2201	0	0	0	387	0	0	5
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.3%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	14.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	944	133	384	1669	4	0	0	294	0	0	4
Future Vol, veh/h	4	944	133	384	1669	4	0	0	294	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1242	175	505	2196	5	0	0	387	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2201	0	0	1417	0	0	-	-	621	-	-	1101
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.24	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.27	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	219	-	-	~ 477	-	-	0	0	430	0	0	207
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	219	-	-	~ 477	-	-	-	-	430	-	-	207
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.08	16.35	53.15	22.86
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	430	219	-	-	~ 477	-	-	207
HCM Lane V/C Ratio	0.899	0.024	-	-	1.06	-	-	0.025
HCM Control Delay (s/veh)	53.2	21.8	-	-	87.6	-	-	22.9
HCM Lane LOS	F	C	-	-	F	-	-	C
HCM 95th %tile Q(veh)	9.6	0.1	-	-	15.7	-	-	0.1

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1220	36	134	1967	78	60	4	91	23	4	65
Future Volume (vph)	35	1220	36	134	1967	78	60	4	91	23	4	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	300		200	200		200	0		0
Storage Lanes	1		1	2		1	1		1	0		0
Taper Length (ft)	200			200			100			50		
Satd. Flow (prot)	1687	3374	1509	3367	3471	1553	3433	1863	1583	0	1666	0
Flt Permitted	0.950			0.950			0.950				0.913	
Satd. Flow (perm)	1687	3374	1509	3367	3471	1553	3433	1863	1583	0	1539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		607			552			1016			1086	
Travel Time (s)		7.5			6.8			27.7			29.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	1435	42	158	2314	92	71	5	107	0	108	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Perm	NA	
Protected Phases	5	2	3	1	6		3	8	1		4	
Permitted Phases			2			6			8	4		
Detector Phase	5	2	3	1	6	6	3	8	1	4	4	
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	14.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	14.0	21.0	14.0	14.0	21.0	21.0	14.0	14.0	14.0	14.0	14.0	
Total Split (s)	15.0	90.0	15.0	25.0	100.0	100.0	15.0	35.0	25.0	20.0	20.0	
Total Split (%)	10.0%	60.0%	10.0%	16.7%	66.7%	66.7%	10.0%	23.3%	16.7%	13.3%	13.3%	
Yellow Time (s)	5.0	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	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	Lag	Lag	Lag	Lead	Lead	Lead	Lag		Lead	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	9.8	89.5	99.2	16.4	98.9	98.9	9.7	13.2	23.4		14.4	
Actuated g/C Ratio	0.07	0.60	0.66	0.11	0.66	0.66	0.06	0.09	0.16		0.10	
v/c Ratio	0.37	0.71	0.04	0.43	1.01	0.09	0.32	0.03	0.43		0.73	
Control Delay (s/veh)	70.1	18.0	4.0	93.7	32.5	5.2	71.0	57.0	59.5		93.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay (s/veh)	70.1	18.0	4.0	93.7	32.5	5.2	71.0	57.0	59.5		93.4	

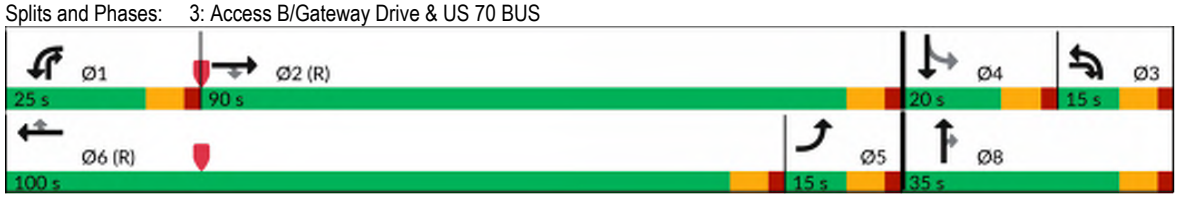
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	B	A	F	C	A	E	E	E		F	
Approach Delay (s/veh)		19.0			35.3			63.9			93.4	
Approach LOS		B			D			E			F	
Queue Length 50th (ft)	36	305	5	82	~1304	12	35	5	101		104	
Queue Length 95th (ft)	63	268	9	m103	#1293	m18	58	16	114		#175	
Internal Link Dist (ft)		527			472			936			1006	
Turn Bay Length (ft)	200			300		200	200		200			
Base Capacity (vph)	112	2013	1001	448	2288	1023	228	372	285		153	
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	0.37	0.71	0.04	0.35	1.01	0.09	0.31	0.01	0.38		0.71	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 53 (35%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay (s/veh): 32.3 Intersection LOS: C
Intersection Capacity Utilization 77.8% ICU Level of Service D
Analysis Period (min) 15
Description: based off 04-1292, with
standard y and r times

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
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: 3: Access B/Gateway Drive & US 70 BUS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	2201	4	0	4	0	0	0	4
Future Volume (vph)	0	0	0	0	2201	4	0	4	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3471	1553	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3471	1553	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			30	
Link Distance (ft)		458			199			181			1023	
Travel Time (s)		5.7			2.5			2.2			23.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.90	0.90	0.90	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2446	4	0	5	0	0	0	5
Sign Control		Stop			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↱		↑				↱
Traffic Vol, veh/h	0	0	0	0	2201	4	0	4	0	0	0	4
Future Vol, veh/h	0	0	0	0	2201	4	0	4	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	90	90	90	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	2446	4	0	5	0	0	0	5

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	1223
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	171
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	171
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	26.63
HCM LOS		D

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	171
HCM Lane V/C Ratio	-	-	0.028
HCM Control Delay (s/veh)	-	-	26.6
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	25	134	1025	198	15	49	1880	206	203	173	25	225
Future Volume (vph)	25	134	1025	198	15	49	1880	206	203	173	25	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		435		510		350		150	130		0	350
Storage Lanes		2		1		1		1	2		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	3337	3440	1539	0	1726	4960	1544	3333	1774	0	1673
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3337	3440	1539	0	1726	4960	1544	3333	1774	0	1673
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				227				227		4		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1024				1078			1081		
Travel Time (s)			15.5				16.3			21.1		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%	3%	3%	4%	4%	4%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	1102	213	0	69	2022	222	218	213	0	242
Turn Type	Prot	Prot	NA	Free	Prot	Prot	NA	Free	Prot	NA		Prot
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				Free				Free				
Detector Phase	5	5	2		1	1	6		3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0		7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.9	13.9	18.4		14.3	14.3	18.5		13.9	13.8		13.3
Total Split (s)	15.0	15.0	70.0		20.0	20.0	75.0		20.0	25.0		35.0
Total Split (%)	10.0%	10.0%	46.7%		13.3%	13.3%	50.0%		13.3%	16.7%		23.3%
Yellow Time (s)	3.0	3.0	4.7		3.0	3.0	4.3		3.0	3.7		3.0
All-Red Time (s)	3.9	3.9	1.7		4.3	4.3	2.2		3.9	3.1		3.3
Lost Time Adjust (s)		-1.9	-1.4			-2.3	-1.5		-1.9	-1.8		-1.3
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lead		Lag	Lag	Lag		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None		None
Act Effct Green (s)		11.2	73.4	150.0		13.9	73.2	150.0	14.2	19.6		26.0
Actuated g/C Ratio		0.07	0.49	1.00		0.09	0.49	1.00	0.09	0.13		0.17
v/c Ratio		0.69	0.66	0.14		0.43	0.84	0.14	0.69	0.90		0.84
Control Delay (s/veh)		79.5	18.3	0.2		72.6	37.8	0.2	77.5	100.6		83.5
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		79.5	18.3	0.2		72.6	37.8	0.2	77.5	100.6		83.5

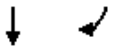
Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	156	194
Future Volume (vph)	156	194
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		350
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	1761	1496
Flt Permitted		
Satd. Flow (perm)	1761	1496
Right Turn on Red		Yes
Satd. Flow (RTOR)		128
Link Speed (mph)	45	
Link Distance (ft)	1059	
Travel Time (s)	16.0	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	9%	9%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	168	209
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.7	13.9
Total Split (s)	40.0	15.0
Total Split (%)	26.7%	10.0%
Yellow Time (s)	4.7	3.0
All-Red Time (s)	2.0	3.9
Lost Time Adjust (s)	-1.7	-1.7
Total Lost Time (s)	5.0	5.2
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	31.4	47.4
Actuated g/C Ratio	0.21	0.32
v/c Ratio	0.46	0.37
Control Delay (s/veh)	55.4	16.6
Queue Delay	0.0	0.0
Total Delay (s/veh)	55.4	16.6

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		E	B	A		E	D	A	E	F		F
Approach Delay (s/veh)			22.7				35.3			89.0		
Approach LOS			C				D			F		
Queue Length 50th (ft)		75	505	0		64	642	0	107	204		229
Queue Length 95th (ft)		#140	575	0		118	712	0	154	#359		325
Internal Link Dist (ft)			944				998			1001		
Turn Bay Length (ft)		435		510		350		150	130			350
Base Capacity (vph)		249	1682	1539		172	2419	1544	333	240		334
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.69	0.66	0.14		0.40	0.84	0.14	0.65	0.89		0.72

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 144 (96%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 38.5	Intersection LOS: D
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	
Description: 04-1086	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
! Phase conflict between lane groups.	

Splits and Phases: 5: Shotwell Rd & US 70 BUS





Lane Group	SBT	SBR
LOS	E	B
Approach Delay (s/veh)	53.3	
Approach LOS	D	
Queue Length 50th (ft)	144	56
Queue Length 95th (ft)	215	128
Internal Link Dist (ft)	979	
Turn Bay Length (ft)		350
Base Capacity (vph)	410	560
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.41	0.37

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1261	14	0	2093	0	29
Future Volume (vph)	1261	14	0	2093	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3539	1583	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	1611
Link Speed (mph)	55			55	25	
Link Distance (ft)	666			607	851	
Travel Time (s)	8.3			7.5	23.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1401	16	0	2326	0	32
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Traffic Vol, veh/h	1261	14	0	2093	0	29
Future Vol, veh/h	1261	14	0	2093	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	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	1401	16	0	2326	0	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	701
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	381
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	381
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	15.31
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	381	-	-	-
HCM Lane V/C Ratio	0.084	-	-	-
HCM Control Delay (s/veh)	15.3	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

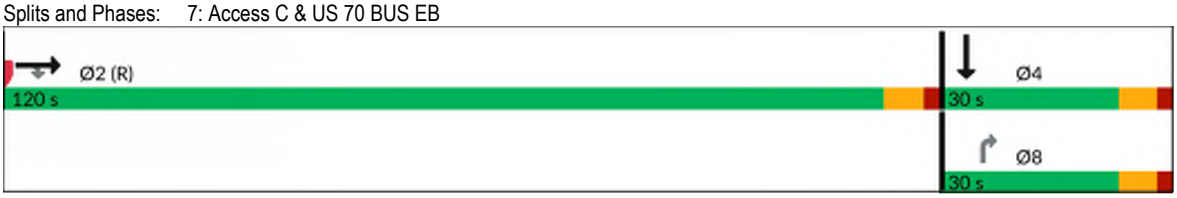
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1326	14	0	0	0	0	0	62	0	94	0
Future Volume (vph)	0	1326	14	0	0	0	0	0	62	0	94	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		200	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3374	1509	0	0	0	0	0	2787	0	1827	0
Flt Permitted												
Satd. Flow (perm)	0	3374	1509	0	0	0	0	0	2787	0	1827	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			25			30	
Link Distance (ft)		219			1179			604			159	
Travel Time (s)		2.7			14.6			16.5			3.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1473	16	0	0	0	0	0	69	0	104	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									4	
Permitted Phases			2						8			
Detector Phase		2	2						8		4	
Switch Phase												
Minimum Initial (s)		12.0	12.0						7.0		7.0	
Minimum Split (s)		25.0	25.0						25.0		25.0	
Total Split (s)		120.0	120.0						30.0		30.0	
Total Split (%)		80.0%	80.0%						20.0%		20.0%	
Yellow Time (s)		5.0	5.0						5.0		5.0	
All-Red Time (s)		2.0	2.0						2.0		2.0	
Lost Time Adjust (s)		-2.0	-2.0						-2.0		-2.0	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max						None		None	
Act Effct Green (s)		124.1	124.1						15.9		15.9	
Actuated g/C Ratio		0.83	0.83						0.11		0.11	
v/c Ratio		0.53	0.01						0.23		0.54	
Control Delay (s/veh)		6.2	1.2						62.1		72.1	
Queue Delay		0.0	0.0						0.0		0.0	
Total Delay (s/veh)		6.2	1.2						62.1		72.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A	A						E		E	
Approach Delay (s/veh)		6.1						62.1			72.1	
Approach LOS		A						E			E	
Queue Length 50th (ft)		397	1						35		86	
Queue Length 95th (ft)		425	m1						61		m110	
Internal Link Dist (ft)		139			1099			524			79	
Turn Bay Length (ft)									200			
Base Capacity (vph)		2791	1248						464		304	
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		0.53	0.01						0.15		0.34	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 76 (51%), Referenced to phase 2:EBT and 6:, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 12.6		Intersection LOS: B	
Intersection Capacity Utilization 109.0%		ICU Level of Service H	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Access C & US 70 BUS EB



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	33	1668	230	17	155	1183	59	149	12	224	75	10
Future Volume (vph)	33	1668	230	17	155	1183	59	149	12	224	75	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%				-4%			0%			-2%
Storage Length (ft)	200		600		450		130	200		0	0	
Storage Lanes	1		1		2		1	1		0	1	
Taper Length (ft)	300				125			100			25	
Satd. Flow (prot)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			235				132		117			11
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1681				1007			1019			1004
Travel Time (s)		20.8				12.5			27.8			27.4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	1702	235	0	175	1207	60	152	241	0	77	21
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0
Minimum Split (s)	13.5	21.1	14.7	14.3	14.3	21.1	13.5	14.7	14.0		13.5	14.0
Total Split (s)	13.5	93.0	17.2	16.0	16.0	95.5	16.0	17.2	25.0		16.0	23.8
Total Split (%)	9.0%	62.0%	11.5%	10.7%	10.7%	63.7%	10.7%	11.5%	16.7%		10.7%	15.9%
Yellow Time (s)	4.0	5.1	4.0	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.5	2.0	3.7	3.3	3.3	2.0	2.5	3.7	3.0		2.5	3.0
Lost Time Adjust (s)	-1.5	-2.1	-2.7		-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None	None		None	None
Act Effct Green (s)	8.5	91.0	120.2		11.0	96.2	111.8	24.2	17.4		10.6	9.4
Actuated g/C Ratio	0.06	0.61	0.80		0.07	0.64	0.75	0.16	0.12		0.07	0.06
v/c Ratio	0.35	0.81	0.18		0.69	0.53	0.05	0.28	0.84		0.61	0.18
Control Delay (s/veh)	78.2	27.4	0.8		74.7	9.5	0.1	57.6	56.6		88.4	45.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	78.2	27.4	0.8		74.7	9.5	0.1	57.6	56.6		88.4	45.0



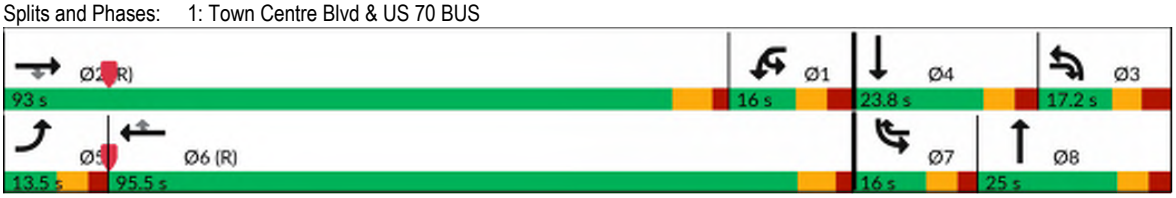
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	80
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.98
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
LOS	E	C	A		E	A	A	E	E		F	D
Approach Delay (s/veh)		25.1				17.0			57.0			79.1
Approach LOS		C				B			E			E
Queue Length 50th (ft)	33	684	0		90	262	0	69	120		74	9
Queue Length 95th (ft)	72	794	20		m130	m287	m0	107	#244		#135	39
Internal Link Dist (ft)		1601				927			939			924
Turn Bay Length (ft)	200		600		450		130	200				
Base Capacity (vph)	98	2104	1290		254	2292	1229	552	314		131	226
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	0.35	0.81	0.18		0.69	0.53	0.05	0.28	0.77		0.59	0.09

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 145 (97%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay (s/veh): 26.7 Intersection LOS: C
Intersection Capacity Utilization 88.9% ICU Level of Service E
Analysis Period (min) 15
Description: 04-1292
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: 1: Town Centre Blvd & US 70 BUS





Lane Group	SBR
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1950	58	205	1440	4	0	0	267	0	0	4
Future Volume (vph)	4	1950	58	205	1440	4	0	0	267	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			666			1033			501	
Travel Time (s)		12.5			8.3			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	2010	60	211	1489	0	0	0	275	0	0	4
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 77.1%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	13

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1950	58	205	1440	4	0	0	267	0	0	4
Future Vol, veh/h	4	1950	58	205	1440	4	0	0	267	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	2010	60	211	1485	4	0	0	275	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1489	0	0	2070	0	0	-	-	1005	-	-	744
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	447	-	-	266	-	-	0	0	~ 240	0	0	357
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	447	-	-	266	-	-	-	-	~ 240	-	-	357
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	6.97	147.8	15.2
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	240	447	-	-	266	-	-	357
HCM Lane V/C Ratio	1.149	0.009	-	-	0.796	-	-	0.012
HCM Control Delay (s/veh)	147.8	13.1	-	-	56.1	-	-	15.2
HCM Lane LOS	F	B	-	-	F	-	-	C
HCM 95th %tile Q(veh)	12.6	0	-	-	6.1	-	-	0

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

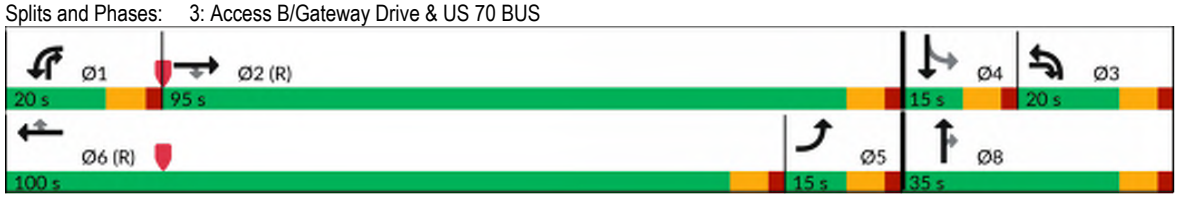
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	2102	133	369	1373	43	224	4	269	23	4	72
Future Volume (vph)	36	2102	133	369	1373	43	224	4	269	23	4	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	350		200	200		200	50		0
Storage Lanes	1		1	2		1	1		1	0		0
Taper Length (ft)	200			200			100			50		
Satd. Flow (prot)	1770	3539	1583	3400	3505	1568	3433	1863	1583	0	1660	0
Flt Permitted	0.950			0.950			0.950				0.918	
Satd. Flow (perm)	1770	3539	1583	3400	3505	1568	3433	1863	1583	0	1542	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		607			552			1016			1086	
Travel Time (s)		7.5			6.8			27.7			29.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	2190	139	384	1430	45	233	4	280	0	103	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Perm	NA	
Protected Phases	5	2	3	1	6		3	8	1		4	
Permitted Phases			2			6			8	4		
Detector Phase	5	2	3	1	6	6	3	8	1	4	4	
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	14.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	14.0	21.0	14.0	14.0	21.0	21.0	14.0	14.0	14.0	14.0	14.0	
Total Split (s)	15.0	95.0	20.0	20.0	100.0	100.0	20.0	35.0	20.0	15.0	15.0	
Total Split (%)	10.0%	63.3%	13.3%	13.3%	66.7%	66.7%	13.3%	23.3%	13.3%	10.0%	10.0%	
Yellow Time (s)	5.0	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	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	Lag	Lag	Lag	Lead	Lead	Lead	Lag		Lead	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	9.8	90.0	104.7	15.3	98.3	98.3	14.7	13.2	22.3		10.0	
Actuated g/C Ratio	0.07	0.60	0.70	0.10	0.66	0.66	0.10	0.09	0.15		0.07	
v/c Ratio	0.33	1.03	0.13	1.10	0.62	0.04	0.70	0.02	1.19		1.01	
Control Delay (s/veh)	60.8	44.3	2.9	134.1	11.2	5.0	77.1	56.5	169.1		158.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay (s/veh)	60.8	44.3	2.9	134.1	11.2	5.0	77.1	56.5	169.1		158.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	D	A	F	B	A	E	E	F		F	
Approach Delay (s/veh)		42.1			36.4			126.7			158.9	
Approach LOS		D			D			F			F	
Queue Length 50th (ft)	36	~1165	13	~218	482	6	115	4	~407		~103	
Queue Length 95th (ft)	m50	#1234	m25	m#318	m571	m12	162	14	320		#235	
Internal Link Dist (ft)		527			472			936			1006	
Turn Bay Length (ft)	200			350		200	200		200			
Base Capacity (vph)	118	2123	1108	348	2297	1028	343	372	235		102	
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	0.32	1.03	0.13	1.10	0.62	0.04	0.68	0.01	1.19		1.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 140 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay (s/veh): 51.4		Intersection LOS: D	
Intersection Capacity Utilization 94.2%		ICU Level of Service F	
Analysis Period (min) 15			
Description: based off 04-1292, with			
standard y and r times			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
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: 3: Access B/Gateway Drive & US 70 BUS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1784	4	0	6	0	0	0	4
Future Volume (vph)	0	0	0	0	1784	4	0	6	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3539	1583	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3539	1583	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			25	
Link Distance (ft)		458			181			185			1023	
Travel Time (s)		5.7			2.2			2.3			27.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1858	4	0	6	0	0	0	5
Sign Control		Stop			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↱		↑				↱
Traffic Vol, veh/h	0	0	0	0	1784	4	0	6	0	0	0	4
Future Vol, veh/h	0	0	0	0	1784	4	0	6	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1858	4	0	6	0	0	0	5

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	929
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	269
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	269
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	18.61
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	269
HCM Lane V/C Ratio	-	-	0.018
HCM Control Delay (s/veh)	-	-	18.6
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	26	216	1972	343	46	118	1591	223	306	179	60	226
Future Volume (vph)	26	216	1972	343	46	118	1591	223	306	179	60	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		435		510		350		150	130		0	350
Storage Lanes		2		1		1		1	2		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	3467	3575	1599	0	1743	5009	1560	3399	1774	0	1770
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3467	3575	1599	0	1743	5009	1560	3399	1774	0	1770
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				227				227		9		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1024				1078			1081		
Travel Time (s)			15.5				16.3			21.1		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	250	2033	354	0	169	1640	230	315	247	0	233
Turn Type	Prot	Prot	NA	Free	Prot	Prot	NA	Free	Prot	NA		Prot
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				Free				Free				
Detector Phase	5	5	2		1	1	6		3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0		7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.9	13.9	18.4		14.3	14.3	18.5		13.9	13.8		13.3
Total Split (s)	20.0	20.0	90.0		20.0	20.0	90.0		20.0	20.0		20.0
Total Split (%)	13.3%	13.3%	60.0%		13.3%	13.3%	60.0%		13.3%	13.3%		13.3%
Yellow Time (s)	3.0	3.0	4.7		3.0	3.0	4.3		3.0	3.7		3.0
All-Red Time (s)	3.9	3.9	1.7		4.3	4.3	2.2		3.9	3.1		3.3
Lost Time Adjust (s)		-1.9	-1.4			-2.3	-1.5		-1.9	-1.8		-1.3
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lead		Lag	Lag	Lag		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None		None
Act Effct Green (s)		14.6	85.0	150.0		15.0	85.4	150.0	15.0	15.0		15.0
Actuated g/C Ratio		0.10	0.57	1.00		0.10	0.57	1.00	0.10	0.10		0.10
v/c Ratio		0.74	1.00	0.22		0.97	0.57	0.15	0.93	1.34		1.32
Control Delay (s/veh)		80.4	35.5	0.1		127.0	21.7	0.2	100.0	229.8		226.1
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		80.4	35.5	0.1		127.0	21.7	0.2	100.0	229.8		226.1

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	172	187
Future Volume (vph)	172	187
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		350
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	1863	1584
Flt Permitted		
Satd. Flow (perm)	1863	1584
Right Turn on Red		Yes
Satd. Flow (RTOR)		128
Link Speed (mph)	45	
Link Distance (ft)	1059	
Travel Time (s)	16.0	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.97	0.97
Growth Factor	100%	100%
Heavy Vehicles (%)	3%	3%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	177	193
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.7	13.9
Total Split (s)	20.0	20.0
Total Split (%)	13.3%	13.3%
Yellow Time (s)	4.7	3.0
All-Red Time (s)	2.0	3.9
Lost Time Adjust (s)	-1.7	-1.7
Total Lost Time (s)	5.0	5.2
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	15.0	34.4
Actuated g/C Ratio	0.10	0.23
v/c Ratio	0.95	0.42
Control Delay (s/veh)	120.3	20.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	120.3	20.0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		F	D	A		F	C	A	F	F		F
Approach Delay (s/veh)			35.0				28.0			157.0		
Approach LOS			C				C			F		
Queue Length 50th (ft)		122	~961	0		168	365	0	160	~306		~293
Queue Length 95th (ft)		m128	m#1113	m0		#324	410	0	#253	#491		#470
Internal Link Dist (ft)			944				998			1001		
Turn Bay Length (ft)		435		510		350		150	130			350
Base Capacity (vph)		346	2025	1599		174	2853	1560	339	185		177
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.72	1.00	0.22		0.97	0.57	0.15	0.93	1.34		1.32

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 62 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay (s/veh): 54.0 Intersection LOS: D
Intersection Capacity Utilization 105.9% ICU Level of Service G
Analysis Period (min) 15
Description: 04-1086

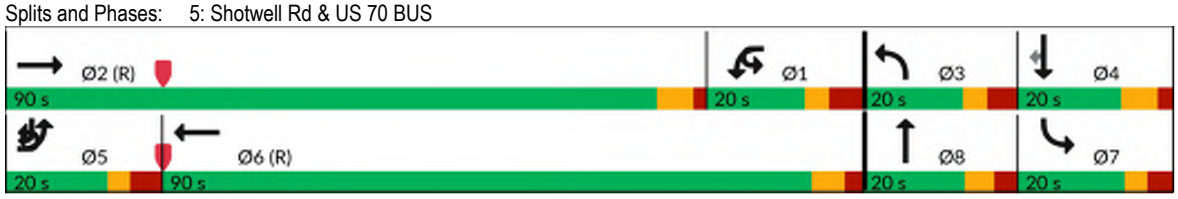
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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.

! Phase conflict between lane groups.

Splits and Phases: 5: Shotwell Rd & US 70 BUS



Lane Group	SBT	SBR
LOS	F	C
Approach Delay (s/veh)	129.1	
Approach LOS	F	
Queue Length 50th (ft)	175	51
Queue Length 95th (ft)	#330	129
Internal Link Dist (ft)	979	
Turn Bay Length (ft)		350
Base Capacity (vph)	186	465
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.95	0.42

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2139	61	0	1665	0	135
Future Volume (vph)	2139	61	0	1665	0	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3539	1583	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	1611
Link Speed (mph)	55			55	25	
Link Distance (ft)	666			607	851	
Travel Time (s)	8.3			7.5	23.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2377	68	0	1850	0	150
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Traffic Vol, veh/h	2139	61	0	1665	0	135
Future Vol, veh/h	2139	61	0	1665	0	135
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	-	-	-	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	2377	68	0	1850	0	150

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1188
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	181
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	181
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	81.17
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	181	-	-	-
HCM Lane V/C Ratio	0.831	-	-	-
HCM Control Delay (s/veh)	81.2	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	5.8	-	-	-

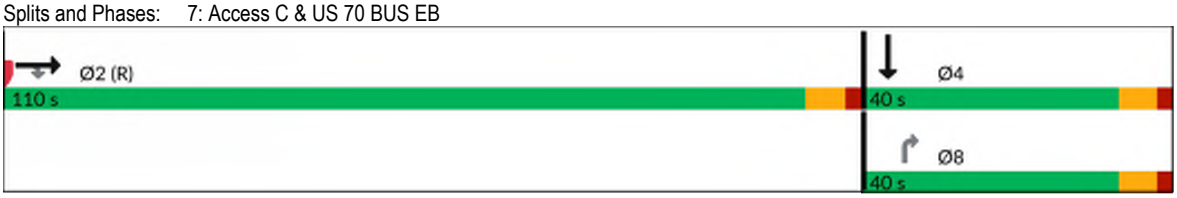
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2305	62	0	0	0	0	0	297	0	274	0
Future Volume (vph)	0	2305	62	0	0	0	0	0	297	0	274	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		200	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	2787	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	2787	0	1863	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			25			55	
Link Distance (ft)		196			1202			586			171	
Travel Time (s)		2.4			14.9			16.0			2.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2561	69	0	0	0	0	0	330	0	304	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									4	
Permitted Phases			2						8			
Detector Phase		2	2						8		4	
Switch Phase												
Minimum Initial (s)		12.0	12.0						7.0		7.0	
Minimum Split (s)		25.0	25.0						25.0		25.0	
Total Split (s)		110.0	110.0						40.0		40.0	
Total Split (%)		73.3%	73.3%						26.7%		26.7%	
Yellow Time (s)		5.0	5.0						5.0		5.0	
All-Red Time (s)		2.0	2.0						2.0		2.0	
Lost Time Adjust (s)		-2.0	-2.0						-2.0		-2.0	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max						None		None	
Act Effct Green (s)		109.5	109.5						30.5		30.5	
Actuated g/C Ratio		0.73	0.73						0.20		0.20	
v/c Ratio		0.99	0.06						0.58		0.80	
Control Delay (s/veh)		18.2	1.8						57.8		57.5	
Queue Delay		0.0	0.0						0.0		0.0	
Total Delay (s/veh)		18.2	1.8						57.8		57.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B	A						E		E	
Approach Delay (s/veh)		17.8						57.8			57.5	
Approach LOS		B						E			E	
Queue Length 50th (ft)		~1404	5						165		260	
Queue Length 95th (ft)		m1315	m7						217		m344	
Internal Link Dist (ft)		116			1122			506			91	
Turn Bay Length (ft)									200			
Base Capacity (vph)		2583	1155						650		434	
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	0.06						0.51		0.70	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay (s/veh): 25.5		Intersection LOS: C	
Intersection Capacity Utilization 131.6%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Access C & US 70 BUS EB



Appendix J:

Synchro Output:

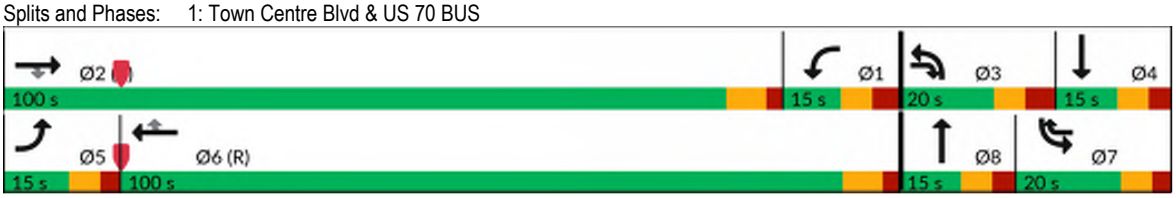
Build-Out (2030) – Access Scenario #2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	936	64	62	1506	99	190	10	61	58	6	21
Future Volume (vph)	21	936	64	62	1506	99	190	10	61	58	6	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-4%			0%			-2%	
Storage Length (ft)	200		600	450		130	200		0	0		80
Storage Lanes	1		1	2		1	1		0	1		1
Taper Length (ft)	300			125			100			25		
Satd. Flow (prot)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			76		69			24	
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1681			1007			1019			1004	
Travel Time (s)		20.8			12.5			27.8			27.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	1052	72	70	1692	111	213	80	0	65	31	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6						
Detector Phase	5	2	3	1	6	7	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.5	21.1	14.7	14.3	21.1	13.5	14.7	14.0		13.5	14.0	
Total Split (s)	15.0	100.0	20.0	15.0	100.0	20.0	20.0	15.0		20.0	15.0	
Total Split (%)	10.0%	66.7%	13.3%	10.0%	66.7%	13.3%	13.3%	10.0%		13.3%	10.0%	
Yellow Time (s)	4.0	5.1	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.0	3.7	3.3	2.0	2.5	3.7	3.0		2.5	3.0	
Lost Time Adjust (s)	-1.5	-2.1	-2.7	-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lead	Lag	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None	None	None		None	None	
Act Effct Green (s)	9.0	100.9	122.3	9.9	104.4	119.0	18.4	9.4		12.7	9.3	
Actuated g/C Ratio	0.06	0.67	0.82	0.07	0.70	0.79	0.12	0.06		0.08	0.06	
v/c Ratio	0.24	0.47	0.06	0.31	0.69	0.09	0.51	0.48		0.43	0.25	
Control Delay (s/veh)	73.4	13.6	0.5	56.9	7.1	0.6	67.2	28.6		73.5	34.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	73.4	13.6	0.5	56.9	7.1	0.6	67.2	28.6		73.5	34.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	B	A	E	A	A	E	C		E	C	
Approach Delay (s/veh)		14.0			8.6			56.7			60.8	
Approach LOS		B			A			E			E	
Queue Length 50th (ft)	23	271	0	33	196	0	104	10		60	7	
Queue Length 95th (ft)	54	323	4	m42	464	m7	148	64		111	42	
Internal Link Dist (ft)		1601			927			939			924	
Turn Bay Length (ft)	200		600	450		130	200					
Base Capacity (vph)	110	2224	1221	228	2463	1272	421	172		178	133	
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	0.22	0.47	0.06	0.31	0.69	0.09	0.51	0.47		0.37	0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 71 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 16.0		Intersection LOS: B	
Intersection Capacity Utilization 62.1%		ICU Level of Service B	
Analysis Period (min) 15			
Description: 04-1292			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Town Centre Blvd & US 70 BUS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	944	133	384	1669	4	0	0	294	0	0	4
Future Volume (vph)	4	944	133	384	1669	4	0	0	294	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			666			1033			501	
Travel Time (s)		12.5			8.3			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	1242	175	505	2201	0	0	0	387	0	0	5
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.3%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	14.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	944	133	384	1669	4	0	0	294	0	0	4
Future Vol, veh/h	4	944	133	384	1669	4	0	0	294	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1242	175	505	2196	5	0	0	387	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2201	0	0	1417	0	0	-	-	621	-	-	1101
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.24	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.27	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	219	-	-	~ 477	-	-	0	0	430	0	0	207
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	219	-	-	~ 477	-	-	-	-	430	-	-	207
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.08	16.35	53.15	22.86
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	430	219	-	-	~ 477	-	-	207
HCM Lane V/C Ratio	0.899	0.024	-	-	1.06	-	-	0.025
HCM Control Delay (s/veh)	53.2	21.8	-	-	87.6	-	-	22.9
HCM Lane LOS	F	C	-	-	F	-	-	C
HCM 95th %tile Q(veh)	9.6	0.1	-	-	15.7	-	-	0.1

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1220	36	134	1967	78	60	0	91	23	0	65
Future Volume (vph)	35	1220	36	134	1967	78	60	0	91	23	0	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	300		200	200		200	50		0
Storage Lanes	1		1	2		1	1		1	1		1
Taper Length (ft)	200			200			100			100		
Satd. Flow (prot)	1687	3374	1509	3367	3471	1553	3433	0	2787	1770	0	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1687	3374	1509	3367	3471	1553	3433	0	2787	1770	0	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		607			552			1016			1086	
Travel Time (s)		7.5			6.8			27.7			29.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	1435	42	158	2314	92	71	0	107	27	0	76
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot		Over	Prot		Over
Protected Phases	5	2	3	1	6	7	3		1	7		5
Permitted Phases			2			6						
Detector Phase	5	2	3	1	6	7	3		1	7		5
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	7.0	7.0		7.0	7.0		7.0
Minimum Split (s)	14.0	21.0	14.0	14.0	21.0	14.0	14.0		14.0	14.0		14.0
Total Split (s)	15.0	105.0	20.0	25.0	115.0	20.0	20.0		25.0	20.0		15.0
Total Split (%)	10.0%	70.0%	13.3%	16.7%	76.7%	13.3%	13.3%		16.7%	13.3%		10.0%
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	Lag	Lag		Lead	Lead				Lead			Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None		None	None		None
Act Effct Green (s)	10.0	110.0	125.6	14.4	114.4	130.0	10.6		14.4	10.6		10.0
Actuated g/C Ratio	0.07	0.73	0.84	0.10	0.76	0.87	0.07		0.10	0.07		0.07
v/c Ratio	0.37	0.58	0.03	0.49	0.87	0.07	0.29		0.40	0.22		0.72
Control Delay (s/veh)	70.3	7.8	1.8	93.7	13.5	0.5	68.8		67.7	69.3		103.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay (s/veh)	70.3	7.8	1.8	93.7	13.5	0.5	68.8		67.7	69.3		103.4

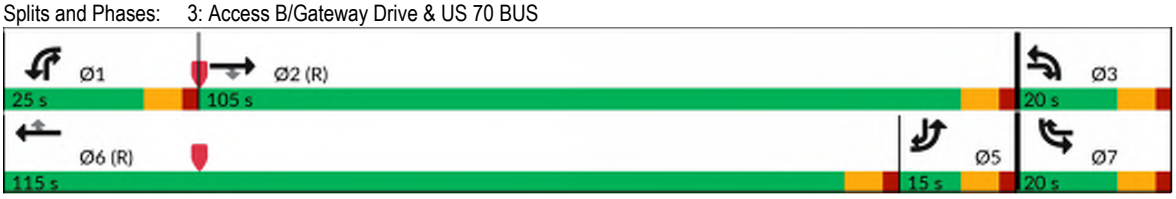
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	A	A	F	B	A	E		E	E		F
Approach Delay (s/veh)		9.4			17.9			68.2			94.5	
Approach LOS		A			B			E			F	
Queue Length 50th (ft)	36	174	4	82	436	3	34		56	25		74
Queue Length 95th (ft)	63	181	7	m103	140	m5	57		85	56		#145
Internal Link Dist (ft)		527			472			936			1006	
Turn Bay Length (ft)	200			300		200	200		200	50		
Base Capacity (vph)	112	2473	1307	448	2646	1335	343		371	177		105
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	0.37	0.58	0.03	0.35	0.87	0.07	0.21		0.29	0.15		0.72

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 53 (35%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay (s/veh): 18.8 Intersection LOS: B
Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15
Description: based off 04-1292, with standard y and r times

\# 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: 3: Access B/Gateway Drive & US 70 BUS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	2201	4	0	4	0	0	0	4
Future Volume (vph)	0	0	0	0	2201	4	0	4	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3471	1553	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3471	1553	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			30	
Link Distance (ft)		458			199			181			1023	
Travel Time (s)		5.7			2.5			2.2			23.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.90	0.90	0.90	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2446	4	0	5	0	0	0	5
Sign Control		Stop			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↱		↑				↱
Traffic Vol, veh/h	0	0	0	0	2201	4	0	4	0	0	0	4
Future Vol, veh/h	0	0	0	0	2201	4	0	4	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	90	90	90	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	2446	4	0	5	0	0	0	5

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	1223
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	171
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	171
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	26.63
HCM LOS		D

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	171
HCM Lane V/C Ratio	-	-	0.028
HCM Control Delay (s/veh)	-	-	26.6
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	25	134	1025	198	15	49	1880	206	203	173	25	225
Future Volume (vph)	25	134	1025	198	15	49	1880	206	203	173	25	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		435		510		350		150	130		0	350
Storage Lanes		2		1		1		1	2		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	3337	3440	1539	0	1726	4960	1544	3333	1774	0	1673
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3337	3440	1539	0	1726	4960	1544	3333	1774	0	1673
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				227				227		4		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1024				1078			1081		
Travel Time (s)			15.5				16.3			21.1		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%	3%	3%	4%	4%	4%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	1102	213	0	69	2022	222	218	213	0	242
Turn Type	Prot	Prot	NA	Free	Prot	Prot	NA	Free	Prot	NA		Prot
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				Free				Free				
Detector Phase	5	5	2		1	1	6		3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0		7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.9	13.9	18.4		14.3	14.3	18.5		13.9	13.8		13.3
Total Split (s)	15.0	15.0	70.0		20.0	20.0	75.0		20.0	25.0		35.0
Total Split (%)	10.0%	10.0%	46.7%		13.3%	13.3%	50.0%		13.3%	16.7%		23.3%
Yellow Time (s)	3.0	3.0	4.7		3.0	3.0	4.3		3.0	3.7		3.0
All-Red Time (s)	3.9	3.9	1.7		4.3	4.3	2.2		3.9	3.1		3.3
Lost Time Adjust (s)		-1.9	-1.4			-2.3	-1.5		-1.9	-1.8		-1.3
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lead		Lag	Lag	Lag		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None		None
Act Effct Green (s)		11.2	73.4	150.0		13.9	73.2	150.0	14.2	19.6		26.0
Actuated g/C Ratio		0.07	0.49	1.00		0.09	0.49	1.00	0.09	0.13		0.17
v/c Ratio		0.69	0.66	0.14		0.43	0.84	0.14	0.69	0.90		0.84
Control Delay (s/veh)		80.9	22.6	0.2		72.6	37.8	0.2	77.5	100.6		83.5
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		80.9	22.6	0.2		72.6	37.8	0.2	77.5	100.6		83.5

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	156	194
Future Volume (vph)	156	194
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		350
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	1761	1496
Flt Permitted		
Satd. Flow (perm)	1761	1496
Right Turn on Red		Yes
Satd. Flow (RTOR)		128
Link Speed (mph)	45	
Link Distance (ft)	1059	
Travel Time (s)	16.0	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	9%	9%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	168	209
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.7	13.9
Total Split (s)	40.0	15.0
Total Split (%)	26.7%	10.0%
Yellow Time (s)	4.7	3.0
All-Red Time (s)	2.0	3.9
Lost Time Adjust (s)	-1.7	-1.7
Total Lost Time (s)	5.0	5.2
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	31.4	47.4
Actuated g/C Ratio	0.21	0.32
v/c Ratio	0.46	0.37
Control Delay (s/veh)	55.4	16.6
Queue Delay	0.0	0.0
Total Delay (s/veh)	55.4	16.6

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		F	C	A		E	D	A	E	F		F
Approach Delay (s/veh)			26.1				35.3			89.0		
Approach LOS			C				D			F		
Queue Length 50th (ft)		85	478	0		64	642	0	107	204		229
Queue Length 95th (ft)		#140	583	0		118	712	0	154	#359		325
Internal Link Dist (ft)			944				998			1001		
Turn Bay Length (ft)		435		510		350		150	130			350
Base Capacity (vph)		249	1682	1539		172	2419	1544	333	240		334
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.69	0.66	0.14		0.40	0.84	0.14	0.65	0.89		0.72

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 144 (96%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 39.5	Intersection LOS: D
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	
Description: 04-1086	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
! Phase conflict between lane groups.	

Splits and Phases: 5: Shotwell Rd & US 70 BUS



Lane Group	SBT	SBR
LOS	E	B
Approach Delay (s/veh)	53.3	
Approach LOS	D	
Queue Length 50th (ft)	144	56
Queue Length 95th (ft)	215	128
Internal Link Dist (ft)	979	
Turn Bay Length (ft)		350
Base Capacity (vph)	410	560
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.41	0.37

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1261	14	0	2093	0	29
Future Volume (vph)	1261	14	0	2093	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3539	1583	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	1611
Link Speed (mph)	55			55	25	
Link Distance (ft)	666			607	851	
Travel Time (s)	8.3			7.5	23.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1401	16	0	2326	0	32
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Traffic Vol, veh/h	1261	14	0	2093	0	29
Future Vol, veh/h	1261	14	0	2093	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	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	1401	16	0	2326	0	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	701
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	381
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	381
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	15.31
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	381	-	-	-
HCM Lane V/C Ratio	0.084	-	-	-
HCM Control Delay (s/veh)	15.3	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

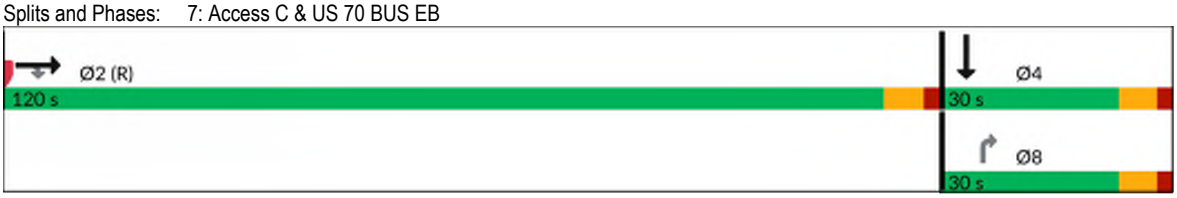
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1326	14	0	0	0	0	0	62	0	94	0
Future Volume (vph)	0	1326	14	0	0	0	0	0	62	0	94	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		200	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3374	1509	0	0	0	0	0	2787	0	1827	0
Flt Permitted												
Satd. Flow (perm)	0	3374	1509	0	0	0	0	0	2787	0	1827	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			25			30	
Link Distance (ft)		219			1179			604			159	
Travel Time (s)		2.7			14.6			16.5			3.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1473	16	0	0	0	0	0	69	0	104	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									4	
Permitted Phases			2						8			
Detector Phase		2	2						8		4	
Switch Phase												
Minimum Initial (s)		12.0	12.0						7.0		7.0	
Minimum Split (s)		25.0	25.0						25.0		25.0	
Total Split (s)		120.0	120.0						30.0		30.0	
Total Split (%)		80.0%	80.0%						20.0%		20.0%	
Yellow Time (s)		5.0	5.0						5.0		5.0	
All-Red Time (s)		2.0	2.0						2.0		2.0	
Lost Time Adjust (s)		-2.0	-2.0						-2.0		-2.0	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max						None		None	
Act Effct Green (s)		124.1	124.1						15.9		15.9	
Actuated g/C Ratio		0.83	0.83						0.11		0.11	
v/c Ratio		0.53	0.01						0.23		0.54	
Control Delay (s/veh)		5.4	1.9						62.1		72.1	
Queue Delay		0.0	0.0						0.0		0.0	
Total Delay (s/veh)		5.4	1.9						62.1		72.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A	A						E		E	
Approach Delay (s/veh)		5.4						62.1			72.1	
Approach LOS		A						E			E	
Queue Length 50th (ft)		255	2						35		86	
Queue Length 95th (ft)		350	m4						61		m110	
Internal Link Dist (ft)		139			1099			524			79	
Turn Bay Length (ft)									200			
Base Capacity (vph)		2791	1248						464		304	
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		0.53	0.01						0.15		0.34	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 76 (51%), Referenced to phase 2:EBT and 6:, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 11.9		Intersection LOS: B	
Intersection Capacity Utilization 109.0%		ICU Level of Service H	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Access C & US 70 BUS EB



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	33	1668	230	17	155	1183	59	149	12	224	75	10
Future Volume (vph)	33	1668	230	17	155	1183	59	149	12	224	75	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%				-4%			0%			-2%
Storage Length (ft)	200		600		450		130	200		0	0	
Storage Lanes	1		1		2		1	1		0	1	
Taper Length (ft)	300				125			100			25	
Satd. Flow (prot)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			235				132		117			11
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1681				1007			1019			1004
Travel Time (s)		20.8				12.5			27.8			27.4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	1702	235	0	175	1207	60	152	241	0	77	21
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0
Minimum Split (s)	13.5	21.1	14.7	14.3	14.3	21.1	13.5	14.7	14.0		13.5	14.0
Total Split (s)	13.5	93.0	17.2	16.0	16.0	95.5	16.0	17.2	25.0		16.0	23.8
Total Split (%)	9.0%	62.0%	11.5%	10.7%	10.7%	63.7%	10.7%	11.5%	16.7%		10.7%	15.9%
Yellow Time (s)	4.0	5.1	4.0	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.5	2.0	3.7	3.3	3.3	2.0	2.5	3.7	3.0		2.5	3.0
Lost Time Adjust (s)	-1.5	-2.1	-2.7		-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None	None		None	None
Act Effct Green (s)	8.5	91.0	120.2		11.0	96.2	111.8	24.2	17.4		10.6	9.4
Actuated g/C Ratio	0.06	0.61	0.80		0.07	0.64	0.75	0.16	0.12		0.07	0.06
v/c Ratio	0.35	0.81	0.18		0.69	0.53	0.05	0.28	0.84		0.61	0.18
Control Delay (s/veh)	78.2	27.4	0.8		80.5	13.7	0.1	57.6	56.6		88.4	45.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	78.2	27.4	0.8		80.5	13.7	0.1	57.6	56.6		88.4	45.0



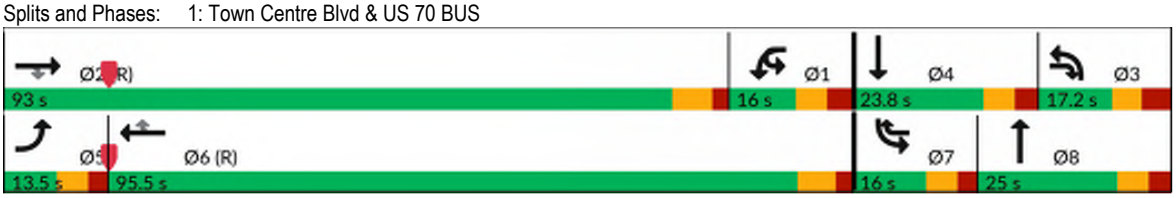
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	80
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.98
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
LOS	E	C	A		F	B	A	E	E		F	D
Approach Delay (s/veh)		25.1				21.2			57.0			79.1
Approach LOS		C				C			E			E
Queue Length 50th (ft)	33	684	0		90	448	0	69	120		74	9
Queue Length 95th (ft)	72	794	20		131	396	m1	107	#244		#135	39
Internal Link Dist (ft)		1601				927			939			924
Turn Bay Length (ft)	200		600		450		130	200				
Base Capacity (vph)	98	2104	1290		254	2292	1229	552	314		131	226
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	0.35	0.81	0.18		0.69	0.53	0.05	0.28	0.77		0.59	0.09

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 145 (97%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay (s/veh): 28.3 Intersection LOS: C
Intersection Capacity Utilization 88.9% ICU Level of Service E
Analysis Period (min) 15
Description: 04-1292
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: 1: Town Centre Blvd & US 70 BUS





Lane Group	SBR
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1950	58	205	1440	4	0	0	267	0	0	4
Future Volume (vph)	4	1950	58	205	1440	4	0	0	267	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			666			1033			501	
Travel Time (s)		12.5			8.3			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	2010	60	211	1489	0	0	0	275	0	0	4
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 77.1%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	13

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1950	58	205	1440	4	0	0	267	0	0	4
Future Vol, veh/h	4	1950	58	205	1440	4	0	0	267	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	2010	60	211	1485	4	0	0	275	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1489	0	0	2070	0	0	-	-	1005	-	-	744
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	447	-	-	266	-	-	0	0	~ 240	0	0	357
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	447	-	-	266	-	-	-	-	~ 240	-	-	357
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	6.97	147.8	15.2
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	240	447	-	-	266	-	-	357
HCM Lane V/C Ratio	1.149	0.009	-	-	0.796	-	-	0.012
HCM Control Delay (s/veh)	147.8	13.1	-	-	56.1	-	-	15.2
HCM Lane LOS	F	B	-	-	F	-	-	C
HCM 95th %tile Q(veh)	12.6	0	-	-	6.1	-	-	0

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

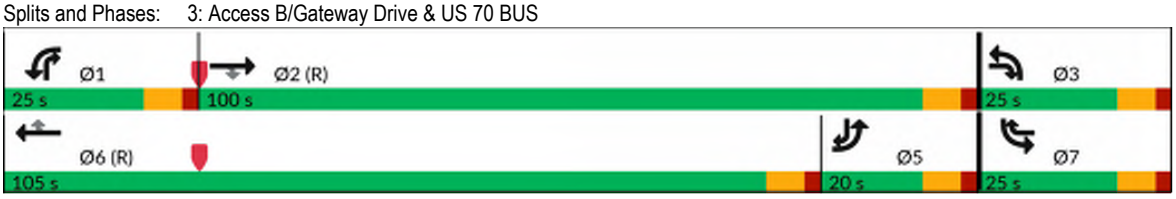
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	2102	133	369	1373	43	224	0	269	23	0	72
Future Volume (vph)	36	2102	133	369	1373	43	224	0	269	23	0	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	300		200	200		200	50		0
Storage Lanes	1		1	2		1	1		1	1		1
Taper Length (ft)	200			200			100			50		
Satd. Flow (prot)	1770	3539	1583	3400	3505	1568	3433	0	2787	1770	0	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	3400	3505	1568	3433	0	2787	1770	0	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		607			552			1016			1086	
Travel Time (s)		7.5			6.8			27.7			29.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	2190	139	384	1430	45	233	0	280	24	0	75
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot		Over	Prot		Over
Protected Phases	5	2	3	1	6	7	3		1	7		5
Permitted Phases			2			6						
Detector Phase	5	2	3	1	6	7	3		1	7		5
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	7.0	7.0		7.0	7.0		7.0
Minimum Split (s)	14.0	21.0	14.0	14.0	21.0	14.0	14.0		14.0	14.0		14.0
Total Split (s)	20.0	100.0	25.0	25.0	105.0	25.0	25.0		25.0	25.0		20.0
Total Split (%)	13.3%	66.7%	16.7%	16.7%	70.0%	16.7%	16.7%		16.7%	16.7%		13.3%
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	Lag	Lag		Lead	Lead				Lead			Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None		None	None		None
Act Effct Green (s)	15.0	96.7	118.8	21.2	102.9	123.1	17.1		21.2	16.3		15.0
Actuated g/C Ratio	0.10	0.64	0.79	0.14	0.69	0.82	0.11		0.14	0.11		0.10
v/c Ratio	0.21	0.96	0.11	0.80	0.60	0.03	0.60		0.71	0.13		0.47
Control Delay (s/veh)	51.6	22.7	1.7	74.3	6.8	1.3	69.4		72.3	60.0		74.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay (s/veh)	51.6	22.7	1.7	74.3	6.8	1.3	69.4		72.3	60.0		74.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	C	A	E	A	A	E		E	E		E
Approach Delay (s/veh)		21.9			20.6			70.9			70.9	
Approach LOS		C			C			E			E	
Queue Length 50th (ft)	35	323	12	159	88	3	113		148	21		71
Queue Length 95th (ft)	m48	601	m15	m#257	m434	m6	156		#213	51		128
Internal Link Dist (ft)		527			472			936			1006	
Turn Bay Length (ft)	200			300		200	200		200	50		
Base Capacity (vph)	177	2280	1283	484	2403	1291	457		396	236		158
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	0.21	0.96	0.11	0.79	0.60	0.03	0.51		0.71	0.10		0.47

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 140 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay (s/veh): 27.6 Intersection LOS: C
Intersection Capacity Utilization 87.5% ICU Level of Service E
Analysis Period (min) 15
Description: based off 04-1292, with
standard y and r times
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: 3: Access B/Gateway Drive & US 70 BUS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1784	4	0	6	0	0	0	4
Future Volume (vph)	0	0	0	0	1784	4	0	6	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3539	1583	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3539	1583	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			25	
Link Distance (ft)		458			181			185			1023	
Travel Time (s)		5.7			2.2			2.3			27.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1858	4	0	6	0	0	0	5
Sign Control		Stop			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	59.3%	ICU Level of Service B	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↱		↑				↱
Traffic Vol, veh/h	0	0	0	0	1784	4	0	6	0	0	0	4
Future Vol, veh/h	0	0	0	0	1784	4	0	6	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1858	4	0	6	0	0	0	5

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	929
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	269
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	269
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	18.61
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	269
HCM Lane V/C Ratio	-	-	0.018
HCM Control Delay (s/veh)	-	-	18.6
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	26	216	1972	343	46	118	1591	223	306	179	60	226
Future Volume (vph)	26	216	1972	343	46	118	1591	223	306	179	60	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		435		510		350		150	130		0	350
Storage Lanes		2		1		1		1	2		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	3467	3575	1599	0	1743	5009	1560	3399	1774	0	1770
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3467	3575	1599	0	1743	5009	1560	3399	1774	0	1770
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				227				227		9		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1024				1078			1081		
Travel Time (s)			15.5				16.3			21.1		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	250	2033	354	0	169	1640	230	315	247	0	233
Turn Type	Prot	Prot	NA	Free	Prot	Prot	NA	Free	Prot	NA		Prot
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				Free				Free				
Detector Phase	5	5	2		1	1	6		3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0		7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.9	13.9	18.4		14.3	14.3	18.5		13.9	13.8		13.3
Total Split (s)	20.0	20.0	90.0		20.0	20.0	90.0		20.0	20.0		20.0
Total Split (%)	13.3%	13.3%	60.0%		13.3%	13.3%	60.0%		13.3%	13.3%		13.3%
Yellow Time (s)	3.0	3.0	4.7		3.0	3.0	4.3		3.0	3.7		3.0
All-Red Time (s)	3.9	3.9	1.7		4.3	4.3	2.2		3.9	3.1		3.3
Lost Time Adjust (s)		-1.9	-1.4			-2.3	-1.5		-1.9	-1.8		-1.3
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lead		Lag	Lag	Lag		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None		None
Act Effct Green (s)		14.6	85.0	150.0		15.0	85.4	150.0	15.0	15.0		15.0
Actuated g/C Ratio		0.10	0.57	1.00		0.10	0.57	1.00	0.10	0.10		0.10
v/c Ratio		0.74	1.00	0.22		0.97	0.57	0.15	0.93	1.34		1.32
Control Delay (s/veh)		80.1	36.2	0.1		127.0	21.7	0.2	100.0	229.8		226.1
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		80.1	36.2	0.1		127.0	21.7	0.2	100.0	229.8		226.1

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	172	187
Future Volume (vph)	172	187
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		350
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	1863	1584
Flt Permitted		
Satd. Flow (perm)	1863	1584
Right Turn on Red		Yes
Satd. Flow (RTOR)		128
Link Speed (mph)	45	
Link Distance (ft)	1059	
Travel Time (s)	16.0	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.97	0.97
Growth Factor	100%	100%
Heavy Vehicles (%)	3%	3%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	177	193
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.7	13.9
Total Split (s)	20.0	20.0
Total Split (%)	13.3%	13.3%
Yellow Time (s)	4.7	3.0
All-Red Time (s)	2.0	3.9
Lost Time Adjust (s)	-1.7	-1.7
Total Lost Time (s)	5.0	5.2
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	15.0	34.4
Actuated g/C Ratio	0.10	0.23
v/c Ratio	0.95	0.42
Control Delay (s/veh)	120.3	20.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	120.3	20.0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		F	D	A		F	C	A	F	F		F
Approach Delay (s/veh)			35.5				28.0			157.0		
Approach LOS			D				C			F		
Queue Length 50th (ft)		122	~961	0		168	365	0	160	~306		~293
Queue Length 95th (ft)		m127	m#1113	m0		#324	410	0	#253	#491		#470
Internal Link Dist (ft)			944				998			1001		
Turn Bay Length (ft)		435		510		350		150	130			350
Base Capacity (vph)		346	2025	1599		174	2853	1560	339	185		177
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.72	1.00	0.22		0.97	0.57	0.15	0.93	1.34		1.32

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 62 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.34			
Intersection Signal Delay (s/veh): 54.3		Intersection LOS: D	
Intersection Capacity Utilization 105.9%		ICU Level of Service G	
Analysis Period (min) 15			
Description: 04-1086			

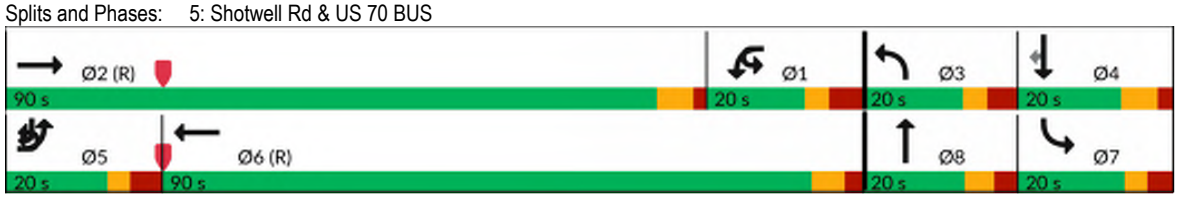
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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.

! Phase conflict between lane groups.

Splits and Phases: 5: Shotwell Rd & US 70 BUS



Lane Group	SBT	SBR
LOS	F	C
Approach Delay (s/veh)	129.1	
Approach LOS	F	
Queue Length 50th (ft)	175	51
Queue Length 95th (ft)	#330	129
Internal Link Dist (ft)	979	
Turn Bay Length (ft)		350
Base Capacity (vph)	186	465
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.95	0.42

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2139	61	0	1665	0	135
Future Volume (vph)	2139	61	0	1665	0	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3539	1583	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	1611
Link Speed (mph)	55			55	25	
Link Distance (ft)	666			607	851	
Travel Time (s)	8.3			7.5	23.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2377	68	0	1850	0	150
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Traffic Vol, veh/h	2139	61	0	1665	0	135
Future Vol, veh/h	2139	61	0	1665	0	135
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	-	-	-	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	2377	68	0	1850	0	150

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1188
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	181
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	181
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	81.17
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	181	-	-	-
HCM Lane V/C Ratio	0.831	-	-	-
HCM Control Delay (s/veh)	81.2	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	5.8	-	-	-

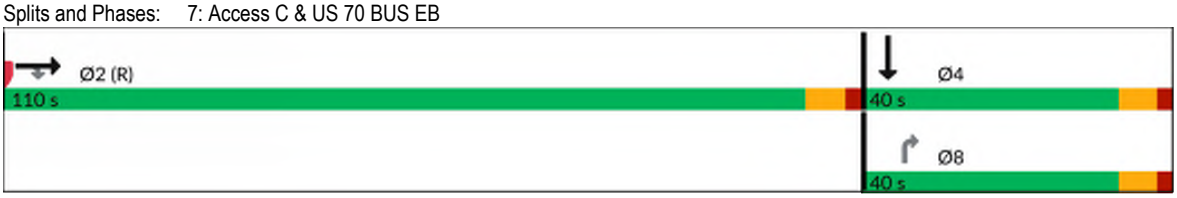
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2305	62	0	0	0	0	0	297	0	274	0
Future Volume (vph)	0	2305	62	0	0	0	0	0	297	0	274	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		200	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	2787	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	2787	0	1863	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			25			55	
Link Distance (ft)		196			1202			586			171	
Travel Time (s)		2.4			14.9			16.0			2.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2561	69	0	0	0	0	0	330	0	304	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									4	
Permitted Phases			2						8			
Detector Phase		2	2						8		4	
Switch Phase												
Minimum Initial (s)		12.0	12.0						7.0		7.0	
Minimum Split (s)		25.0	25.0						25.0		25.0	
Total Split (s)		110.0	110.0						40.0		40.0	
Total Split (%)		73.3%	73.3%						26.7%		26.7%	
Yellow Time (s)		5.0	5.0						5.0		5.0	
All-Red Time (s)		2.0	2.0						2.0		2.0	
Lost Time Adjust (s)		-2.0	-2.0						-2.0		-2.0	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max						None		None	
Act Effct Green (s)		109.5	109.5						30.5		30.5	
Actuated g/C Ratio		0.73	0.73						0.20		0.20	
v/c Ratio		0.99	0.06						0.58		0.80	
Control Delay (s/veh)		21.6	1.9						57.8		57.5	
Queue Delay		0.0	0.0						0.0		0.0	
Total Delay (s/veh)		21.6	1.9						57.8		57.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C	A						E		E	
Approach Delay (s/veh)		21.1						57.8			57.5	
Approach LOS		C						E			E	
Queue Length 50th (ft)		~1404	8						165		260	
Queue Length 95th (ft)		m#1565	m9						217		m344	
Internal Link Dist (ft)		116			1122			506			91	
Turn Bay Length (ft)									200			
Base Capacity (vph)		2583	1155						650		434	
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	0.06						0.51		0.70	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay (s/veh): 28.2		Intersection LOS: C	
Intersection Capacity Utilization 131.6%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
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: 7: Access C & US 70 BUS EB



Appendix K:

Synchro Output:

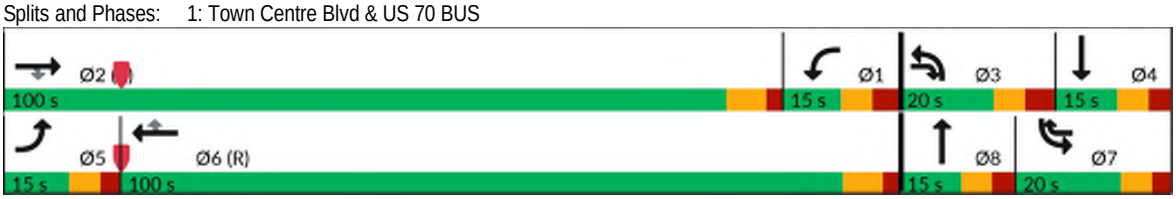
Build-Out (2030) – Access Scenario #3

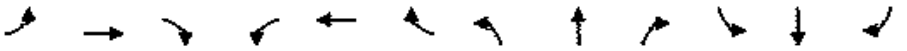
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	936	64	62	1484	99	213	10	61	58	6	21
Future Volume (vph)	21	936	64	62	1484	99	213	10	61	58	6	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-4%			0%			-2%	
Storage Length (ft)	200		600	450		130	200		0	0		80
Storage Lanes	1		1	2		1	1		0	1		1
Taper Length (ft)	300			125			100			25		
Satd. Flow (prot)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1653	3306	1479	3434	3541	1584	3433	1622	0	1787	1663	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			76		69			24	
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1681			1007			1019			1004	
Travel Time (s)		20.8			12.5			27.8			27.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	1052	72	70	1667	111	239	80	0	65	31	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6						
Detector Phase	5	2	3	1	6	7	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.5	21.1	14.7	14.3	21.1	13.5	14.7	14.0		13.5	14.0	
Total Split (s)	15.0	100.0	20.0	15.0	100.0	20.0	20.0	15.0		20.0	15.0	
Total Split (%)	10.0%	66.7%	13.3%	10.0%	66.7%	13.3%	13.3%	10.0%		13.3%	10.0%	
Yellow Time (s)	4.0	5.1	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.0	3.7	3.3	2.0	2.5	3.7	3.0		2.5	3.0	
Lost Time Adjust (s)	-1.5	-2.1	-2.7	-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lead	Lag	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None	None	None		None	None	
Act Effct Green (s)	9.0	100.9	122.3	9.9	104.4	119.0	18.4	9.4		12.7	9.3	
Actuated g/C Ratio	0.06	0.67	0.82	0.07	0.70	0.79	0.12	0.06		0.08	0.06	
v/c Ratio	0.24	0.47	0.06	0.31	0.68	0.09	0.57	0.48		0.43	0.25	
Control Delay (s/veh)	73.4	13.6	0.5	70.7	16.5	1.1	68.9	28.6		73.5	34.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	73.4	13.6	0.5	70.7	16.5	1.1	68.9	28.6		73.5	34.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	E	B	A	E	B	A	E	C		E	C	
Approach Delay (s/veh)		14.0			17.6			58.8			60.8	
Approach LOS		B			B			E			E	
Queue Length 50th (ft)	23	271	0	34	535	3	118	10		60	7	
Queue Length 95th (ft)	54	323	4	60	638	10	165	64		111	42	
Internal Link Dist (ft)		1601			927			939			924	
Turn Bay Length (ft)	200		600	450		130	200					
Base Capacity (vph)	110	2224	1221	228	2463	1272	421	172		178	133	
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	0.22	0.47	0.06	0.31	0.68	0.09	0.57	0.47		0.37	0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 56 (37%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 21.5		Intersection LOS: C	
Intersection Capacity Utilization 62.1%		ICU Level of Service B	
Analysis Period (min) 15			
Description: 04-1292			

Splits and Phases: 1: Town Centre Blvd & US 70 BUS





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	944	133	384	1647	4	0	0	294	0	0	4
Future Volume (vph)	4	944	133	384	1647	4	0	0	294	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1687	3374	1509	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			368			1033			501	
Travel Time (s)		12.5			4.6			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	1242	175	505	2172	0	0	0	387	0	0	5
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.7%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	14.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	944	133	384	1647	4	0	0	294	0	0	4
Future Vol, veh/h	4	944	133	384	1647	4	0	0	294	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1242	175	505	2167	5	0	0	387	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2172	0	0	1417	0	0	-	-	621	-	-	1086
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.24	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.27	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	225	-	-	~ 477	-	-	0	0	430	0	0	211
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	225	-	-	~ 477	-	-	-	-	430	-	-	211
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.08	16.52	53.15	22.46
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	430	225	-	-	~ 477	-	-	211
HCM Lane V/C Ratio	0.899	0.023	-	-	1.06	-	-	0.025
HCM Control Delay (s/veh)	53.2	21.3	-	-	87.6	-	-	22.5
HCM Lane LOS	F	C	-	-	F	-	-	C
HCM 95th %tile Q(veh)	9.6	0.1	-	-	15.7	-	-	0.1

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	2005	78	0	35	0	0	0	65
Future Volume (vph)	0	0	0	0	2005	78	0	35	0	0	0	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	10		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			200			25		
Satd. Flow (prot)	0	0	0	0	3539	1583	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3539	1583	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			25	
Link Distance (ft)		922			318			197			1318	
Travel Time (s)		11.4			3.9			2.4			35.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2089	81	0	36	0	0	0	68
Sign Control		Free			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	2005	78	0	35	0	0	0	65
Future Vol, veh/h	0	0	0	0	2005	78	0	35	0	0	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	2089	81	0	36	0	0	0	68

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	1044
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	226
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	226
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	27.66
HCM LOS		D

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	226
HCM Lane V/C Ratio	-	-	0.3
HCM Control Delay (s/veh)	-	-	27.7
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	1.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	2209	4	30	4	0	0	0	4
Future Volume (vph)	0	0	0	0	2209	4	30	4	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		50	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3539	1583	0	1785	0	0	0	1611
Flt Permitted								0.958				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	1785	0	0	0	1611
Link Speed (mph)		30			55			30			25	
Link Distance (ft)		644			324			188			1327	
Travel Time (s)		14.6			4.0			4.3			36.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2301	4	0	35	0	0	0	4
Sign Control		Free			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 77.7%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	2209	4	30	4	0	0	0	4
Future Vol, veh/h	0	0	0	0	2209	4	30	4	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	2301	4	31	4	0	0	0	4

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	1151
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	191
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	191
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	24.22
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	191
HCM Lane V/C Ratio	-	-	0.022
HCM Control Delay (s/veh)	-	-	24.2
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	25	134	1025	198	15	49	1880	206	203	173	25	225
Future Volume (vph)	25	134	1025	198	15	49	1880	206	203	173	25	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		435		510		350		150	130		0	350
Storage Lanes		2		1		1		1	2		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	3337	3440	1539	0	1726	4960	1544	3333	1774	0	1673
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3337	3440	1539	0	1726	4960	1544	3333	1774	0	1673
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				227				227		4		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1024				1078			1081		
Travel Time (s)			15.5				16.3			21.1		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%	3%	3%	4%	4%	4%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	1102	213	0	69	2022	222	218	213	0	242
Turn Type	Prot	Prot	NA	Free	Prot	Prot	NA	Free	Prot	NA		Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				Free				Free				
Detector Phase	5	5	2		1	1	6		3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0		7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.9	13.9	18.4		14.3	14.3	18.5		13.9	13.8		13.3
Total Split (s)	15.0	15.0	70.0		20.0	20.0	75.0		20.0	25.0		35.0
Total Split (%)	10.0%	10.0%	46.7%		13.3%	13.3%	50.0%		13.3%	16.7%		23.3%
Yellow Time (s)	3.0	3.0	4.7		3.0	3.0	4.3		3.0	3.7		3.0
All-Red Time (s)	3.9	3.9	1.7		4.3	4.3	2.2		3.9	3.1		3.3
Lost Time Adjust (s)		-1.9	-1.4			-2.3	-1.5		-1.9	-1.8		-1.3
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lead		Lag	Lag	Lag		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None		None
Act Effct Green (s)		11.2	73.4	150.0		13.9	73.2	150.0	14.2	19.6		26.0
Actuated g/C Ratio		0.07	0.49	1.00		0.09	0.49	1.00	0.09	0.13		0.17
v/c Ratio		0.69	0.66	0.14		0.43	0.84	0.14	0.69	0.90		0.84
Control Delay (s/veh)		81.0	24.0	0.2		72.6	37.8	0.2	77.5	100.6		83.5
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		81.0	24.0	0.2		72.6	37.8	0.2	77.5	100.6		83.5

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	156	194
Future Volume (vph)	156	194
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		350
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	1761	1496
Flt Permitted		
Satd. Flow (perm)	1761	1496
Right Turn on Red		Yes
Satd. Flow (RTOR)		178
Link Speed (mph)	45	
Link Distance (ft)	1059	
Travel Time (s)	16.0	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	9%	9%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	168	209
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.7	13.7
Total Split (s)	40.0	40.0
Total Split (%)	26.7%	26.7%
Yellow Time (s)	4.7	4.7
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	-1.7	-1.7
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	31.4	31.4
Actuated g/C Ratio	0.21	0.21
v/c Ratio	0.46	0.46
Control Delay (s/veh)	55.4	13.4
Queue Delay	0.0	0.0
Total Delay (s/veh)	55.4	13.4

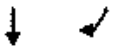
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		F	C	A		E	D	A	E	F		F
Approach Delay (s/veh)			27.1				35.3			89.0		
Approach LOS			C				D			F		
Queue Length 50th (ft)		91	328	0		64	642	0	107	204		229
Queue Length 95th (ft)		#145	370	0		118	712	0	154	#359		325
Internal Link Dist (ft)			944				998			1001		
Turn Bay Length (ft)		435		510		350		150	130			350
Base Capacity (vph)		249	1682	1539		172	2419	1544	333	240		334
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.69	0.66	0.14		0.40	0.84	0.14	0.65	0.89		0.72

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 18 (12%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 39.7		Intersection LOS: D	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			
Description: 04-1086			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Shotwell Rd & US 70 BUS





Lane Group	SBT	SBR
LOS	E	B
Approach Delay (s/veh)	52.2	
Approach LOS	D	
Queue Length 50th (ft)	144	25
Queue Length 95th (ft)	215	99
Internal Link Dist (ft)	979	
Turn Bay Length (ft)		350
Base Capacity (vph)	410	485
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.41	0.43

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1261	14	0	0	0	29
Future Volume (vph)	1261	14	0	0	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3539	1583	0	0	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	0	0	1611
Link Speed (mph)	55			55	25	
Link Distance (ft)	307			429	1145	
Travel Time (s)	3.8			5.3	31.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1401	16	0	0	0	32
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		

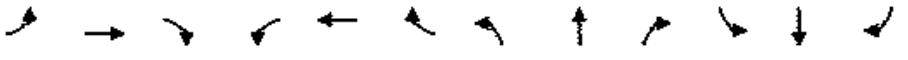
Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1261	14	0	0	0	29
Future Vol, veh/h	1261	14	0	0	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	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	1401	16	0	0	0	32

Major/Minor	Major1			Minor1	
Conflicting Flow All	0	0		-	701
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	-		-	6.94
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	-		-	3.32
Pot Cap-1 Maneuver	-	-		0	381
Stage 1	-	-		0	-
Stage 2	-	-		0	-
Platoon blocked, %	-	-			
Mov Cap-1 Maneuver	-	-		-	381
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	NB
HCM Control Delay, s/v	0	15.31
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	381	-	-
HCM Lane V/C Ratio	0.084	-	-
HCM Control Delay (s/veh)	15.3	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.3	-	-



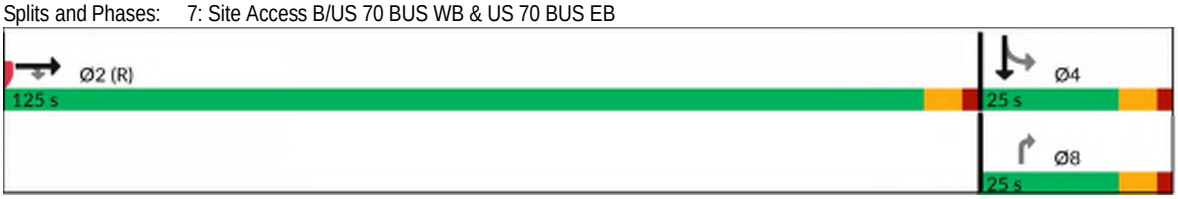
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1220	36	0	0	0	0	0	121	23	134	0
Future Volume (vph)	0	1220	36	0	0	0	0	0	121	23	134	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		2	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	2787	0	3514	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	2787	0	3514	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			55	
Link Distance (ft)		177			792			1074			332	
Travel Time (s)		4.0			18.0			29.3			4.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1271	38	0	0	0	0	0	126	0	164	0
Turn Type		NA	Perm						Perm	Perm	NA	
Protected Phases		2									4	
Permitted Phases			2						8	4		
Detector Phase		2	2						8	4	4	
Switch Phase												
Minimum Initial (s)		12.0	12.0						7.0	7.0	7.0	
Minimum Split (s)		25.0	25.0						25.0	25.0	25.0	
Total Split (s)		125.0	125.0						25.0	25.0	25.0	
Total Split (%)		83.3%	83.3%						16.7%	16.7%	16.7%	
Yellow Time (s)		5.0	5.0						5.0	5.0	5.0	
All-Red Time (s)		2.0	2.0						2.0	2.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0						-2.0		-2.0	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max						None	None	None	
Act Effct Green (s)		125.7	125.7						14.3		14.3	
Actuated g/C Ratio		0.84	0.84						0.10		0.10	
v/c Ratio		0.43	0.03						0.47		0.49	
Control Delay (s/veh)		3.4	2.3						69.8		48.2	
Queue Delay		0.0	0.0						0.0		0.0	
Total Delay (s/veh)		3.4	2.3						69.8		48.2	

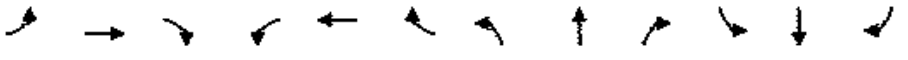
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A	A						E		D	
Approach Delay (s/veh)		3.3						69.8			48.2	
Approach LOS		A						E			D	
Queue Length 50th (ft)		108	4						67		72	
Queue Length 95th (ft)		126	10						103		m90	
Internal Link Dist (ft)		97			712			994			252	
Turn Bay Length (ft)												
Base Capacity (vph)		2964	1326						371		468	
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		0.43	0.03						0.34		0.35	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 1 (1%), Referenced to phase 2:EBT and 6:, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay (s/veh): 13.2		Intersection LOS: B	
Intersection Capacity Utilization 57.9%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Site Access B/US 70 BUS WB & US 70 BUS EB





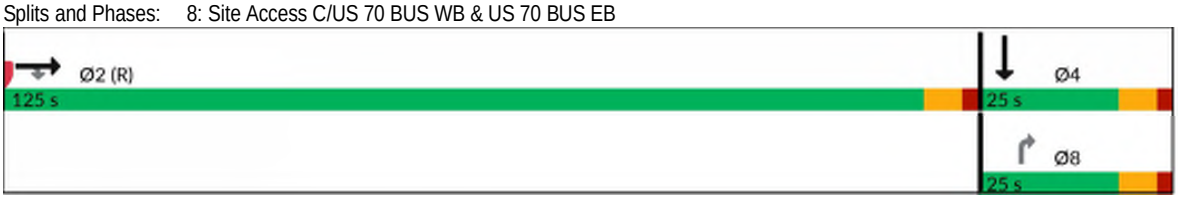
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1326	14	0	0	0	0	0	70	0	94	0
Future Volume (vph)	0	1326	14	0	0	0	0	0	70	0	94	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		2	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	2787	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	2787	0	1863	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			29						167			
Link Speed (mph)		55			30			25			55	
Link Distance (ft)		193			965			1015			316	
Travel Time (s)		2.4			21.9			27.7			3.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1473	16	0	0	0	0	0	78	0	104	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									4	
Permitted Phases			2						8			
Detector Phase		2	2						8		4	
Switch Phase												
Minimum Initial (s)		12.0	12.0						7.0		7.0	
Minimum Split (s)		25.0	25.0						25.0		25.0	
Total Split (s)		125.0	125.0						25.0		25.0	
Total Split (%)		83.3%	83.3%						16.7%		16.7%	
Yellow Time (s)		5.0	5.0						5.0		5.0	
All-Red Time (s)		2.0	2.0						2.0		2.0	
Lost Time Adjust (s)		-2.0	-2.0						-2.0		-2.0	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max						None		None	
Act Effct Green (s)		124.5	124.5						15.5		15.5	
Actuated g/C Ratio		0.83	0.83						0.10		0.10	
v/c Ratio		0.50	0.01						0.18		0.54	
Control Delay (s/veh)		3.8	0.4						0.9		49.7	
Queue Delay		0.0	0.0						0.0		0.0	
Total Delay (s/veh)		3.9	0.4						0.9		49.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A	A						A		D	
Approach Delay (s/veh)		3.8						0.9			49.7	
Approach LOS		A						A			D	
Queue Length 50th (ft)		158	0						0		99	
Queue Length 95th (ft)		186	m1						0		m116	
Internal Link Dist (ft)		113			885			935			236	
Turn Bay Length (ft)												
Base Capacity (vph)		2936	1318						516		248	
Starvation Cap Reductn		142	0						0		0	
Spillback Cap Reductn		0	0						0		0	
Storage Cap Reductn		0	0						0		0	
Reduced v/c Ratio		0.53	0.01						0.15		0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 144 (96%), Referenced to phase 2:EBT and 6:, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 6.5		Intersection LOS: A	
Intersection Capacity Utilization 64.4%		ICU Level of Service C	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Site Access C/US 70 BUS WB & US 70 BUS EB



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	2296	8	0
Future Volume (vph)	0	0	0	2296	8	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	0	0	0	3539	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3539	1770	0
Link Speed (mph)	55			55	25	
Link Distance (ft)	809			372	158	
Travel Time (s)	10.0			4.6	4.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	2551	9	0
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		

9: U-Turn East of Access C & US 70 BUS WB Performance by approach

Approach	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	3.2	78.0	3.5

Intersection: 9: U-Turn East of Access C & US 70 BUS WB

Movement	WB	NB
Directions Served	T	L
Maximum Queue (ft)	2	52
Average Queue (ft)	0	10
95th Queue (ft)	2	35
Link Distance (ft)	328	98
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	33	1668	230	17	155	1141	59	191	12	224	75	10
Future Volume (vph)	33	1668	230	17	155	1141	59	191	12	224	75	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%				-4%			0%			-2%
Storage Length (ft)	200		600		450		130	200		0	0	
Storage Lanes	1		1		2		1	1		0	1	
Taper Length (ft)	300				125			100			25	
Satd. Flow (prot)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	1734	3468	1552	0	3468	3575	1599	3433	1596	0	1787	1733
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			235				132		117			11
Link Speed (mph)		55				55			25			25
Link Distance (ft)		1681				1007			1019			1004
Travel Time (s)		20.8				12.5			27.8			27.4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	1702	235	0	175	1164	60	195	241	0	77	21
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	14.0	7.0	7.0	7.0	14.0	7.0	7.0	7.0		7.0	7.0
Minimum Split (s)	13.5	21.1	14.7	14.3	14.3	21.1	13.5	14.7	14.0		13.5	14.0
Total Split (s)	13.5	93.0	17.2	16.0	16.0	95.5	16.0	17.2	25.0		16.0	23.8
Total Split (%)	9.0%	62.0%	11.5%	10.7%	10.7%	63.7%	10.7%	11.5%	16.7%		10.7%	15.9%
Yellow Time (s)	4.0	5.1	4.0	4.0	4.0	5.1	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.5	2.0	3.7	3.3	3.3	2.0	2.5	3.7	3.0		2.5	3.0
Lost Time Adjust (s)	-1.5	-2.1	-2.7		-2.3	-2.1	-1.5	-2.7	-2.0		-1.5	-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	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None	None		None	None
Act Effct Green (s)	8.5	91.0	120.2		11.0	96.2	111.8	24.2	17.4		10.6	9.4
Actuated g/C Ratio	0.06	0.61	0.80		0.07	0.64	0.75	0.16	0.12		0.07	0.06
v/c Ratio	0.35	0.81	0.18		0.69	0.51	0.05	0.35	0.84		0.61	0.18
Control Delay (s/veh)	78.2	27.4	0.8		82.4	16.4	0.1	58.9	56.6		88.4	45.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	78.2	27.4	0.8		82.4	16.4	0.1	58.9	56.6		88.4	45.0



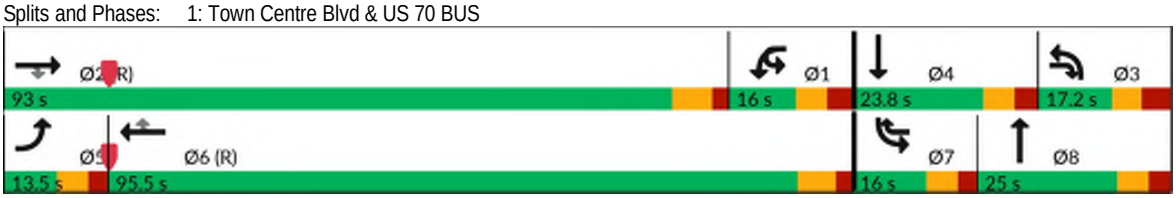
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	80
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.98
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
LOS	E	C	A		F	B	A	E	E		F	D
Approach Delay (s/veh)		25.1				23.9			57.6			79.1
Approach LOS		C				C			E			E
Queue Length 50th (ft)	33	684	0		87	337	0	90	120		74	9
Queue Length 95th (ft)	72	794	20		130	396	0	133	#244		#135	39
Internal Link Dist (ft)		1601				927			939			924
Turn Bay Length (ft)	200		600		450		130	200				
Base Capacity (vph)	98	2104	1290		254	2292	1229	552	314		131	226
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	0.35	0.81	0.18		0.69	0.51	0.05	0.35	0.77		0.59	0.09

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 6 (4%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay (s/veh): 29.7 Intersection LOS: C
Intersection Capacity Utilization 88.9% ICU Level of Service E
Analysis Period (min) 15
Description: 04-1292
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

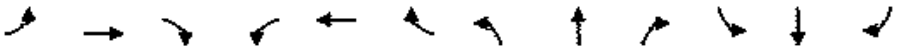
Splits and Phases: 1: Town Centre Blvd & US 70 BUS





Lane Group	SBR
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1950	58	205	1398	4	0	0	267	0	0	4
Future Volume (vph)	4	1950	58	205	1398	4	0	0	267	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	525		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (ft)	250			175			25			25		
Satd. Flow (prot)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3539	1583	1770	3539	0	0	0	1611	0	0	1611
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		1007			549			1033			501	
Travel Time (s)		12.5			6.8			28.2			13.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	2010	60	211	1445	0	0	0	275	0	0	4
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 77.1%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	13.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1950	58	205	1398	4	0	0	267	0	0	4
Future Vol, veh/h	4	1950	58	205	1398	4	0	0	267	0	0	4
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	200	-	0	525	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	2010	60	211	1441	4	0	0	275	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1445	0	0	2070	0	0	-	-	1005	-	-	723
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	465	-	-	266	-	-	0	0	~ 240	0	0	369
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	465	-	-	266	-	-	-	-	~ 240	-	-	369
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03	7.15	147.8	14.87
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	240	465	-	-	266	-	-	369
HCM Lane V/C Ratio	1.149	0.009	-	-	0.796	-	-	0.011
HCM Control Delay (s/veh)	147.8	12.8	-	-	56.1	-	-	14.9
HCM Lane LOS	F	B	-	-	F	-	-	B
HCM 95th %tile Q(veh)	12.6	0	-	-	6.1	-	-	0

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1555	43	0	36	0	0	0	72
Future Volume (vph)	0	0	0	0	1555	43	0	36	0	0	0	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	10		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			200			25		
Satd. Flow (prot)	0	0	0	0	3539	1583	0	1863	0	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3539	1583	0	1863	0	0	0	1611
Link Speed (mph)		55			55			55			25	
Link Distance (ft)		742			318			197			1318	
Travel Time (s)		9.2			3.9			2.4			35.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1620	45	0	38	0	0	0	75
Sign Control		Free			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	1555	43	0	36	0	0	0	72
Future Vol, veh/h	0	0	0	0	1555	43	0	36	0	0	0	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1620	45	0	38	0	0	0	75

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	810
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	323
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	323
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	19.48
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	323
HCM Lane V/C Ratio	-	-	0.232
HCM Control Delay (s/veh)	-	-	19.5
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1845	4	120	6	0	0	0	4
Future Volume (vph)	0	0	0	0	1845	4	120	6	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3539	1583	0	1777	0	0	0	1611
Flt Permitted								0.954				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	1777	0	0	0	1611
Link Speed (mph)		30			55			30			25	
Link Distance (ft)		644			157			193			1327	
Travel Time (s)		14.6			1.9			4.4			36.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1922	4	0	131	0	0	0	4
Sign Control		Free			Free			Yield			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.3%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	1845	4	120	6	0	0	0	4
Future Vol, veh/h	0	0	0	0	1845	4	120	6	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Yield	Yield	Yield	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1922	4	125	6	0	0	0	4

Major/Minor	Major2			Minor2		
Conflicting Flow All	-	-	0	-	-	961
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	256
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	256
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s/v	0	19.27
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	256
HCM Lane V/C Ratio	-	-	0.016
HCM Control Delay (s/veh)	-	-	19.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	26	216	1972	343	46	118	1591	223	306	179	60	226
Future Volume (vph)	26	216	1972	343	46	118	1591	223	306	179	60	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			-2%				3%			2%		
Storage Length (ft)		435		510		350		150	130		0	350
Storage Lanes		2		1		1		1	2		0	1
Taper Length (ft)		175				200			50			125
Satd. Flow (prot)	0	3467	3575	1599	0	1743	5009	1560	3399	1774	0	1770
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3467	3575	1599	0	1743	5009	1560	3399	1774	0	1770
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				227				227		9		
Link Speed (mph)			45				45			35		
Link Distance (ft)			1024				1078			1081		
Travel Time (s)			15.5				16.3			21.1		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	250	2033	354	0	169	1640	230	315	247	0	233
Turn Type	Prot	Prot	NA	Free	Prot	Prot	NA	Free	Prot	NA		Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				Free				Free				
Detector Phase	5	5	2		1	1	6		3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0		7.0	7.0	12.0		7.0	7.0		7.0
Minimum Split (s)	13.9	13.9	18.4		14.3	14.3	18.5		13.9	13.8		13.3
Total Split (s)	20.0	20.0	90.0		20.0	20.0	90.0		20.0	20.0		20.0
Total Split (%)	13.3%	13.3%	60.0%		13.3%	13.3%	60.0%		13.3%	13.3%		13.3%
Yellow Time (s)	3.0	3.0	4.7		3.0	3.0	4.3		3.0	3.7		3.0
All-Red Time (s)	3.9	3.9	1.7		4.3	4.3	2.2		3.9	3.1		3.3
Lost Time Adjust (s)		-1.9	-1.4			-2.3	-1.5		-1.9	-1.8		-1.3
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lead	Lead		Lag	Lag	Lag		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes		Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None		None
Act Effct Green (s)		14.6	85.0	150.0		15.0	85.4	150.0	15.0	15.0		15.0
Actuated g/C Ratio		0.10	0.57	1.00		0.10	0.57	1.00	0.10	0.10		0.10
v/c Ratio		0.74	1.00	0.22		0.97	0.57	0.15	0.93	1.34		1.32
Control Delay (s/veh)		76.4	37.8	0.1		127.0	21.7	0.2	100.0	229.8		226.1
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		76.4	37.8	0.1		127.0	21.7	0.2	100.0	229.8		226.1

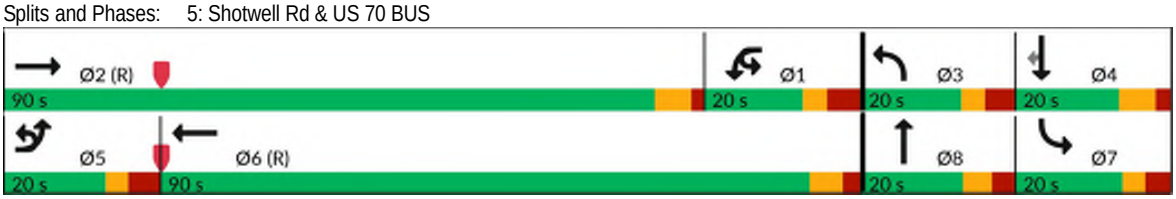
Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	172	187
Future Volume (vph)	172	187
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	-2%	
Storage Length (ft)		350
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	1863	1584
Flt Permitted		
Satd. Flow (perm)	1863	1584
Right Turn on Red		Yes
Satd. Flow (RTOR)		178
Link Speed (mph)	45	
Link Distance (ft)	1059	
Travel Time (s)	16.0	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.97	0.97
Growth Factor	100%	100%
Heavy Vehicles (%)	3%	3%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	177	193
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.7	13.7
Total Split (s)	20.0	20.0
Total Split (%)	13.3%	13.3%
Yellow Time (s)	4.7	4.7
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	-1.7	-1.7
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	15.0	15.0
Actuated g/C Ratio	0.10	0.10
v/c Ratio	0.95	0.61
Control Delay (s/veh)	120.3	19.6
Queue Delay	0.0	0.0
Total Delay (s/veh)	120.3	19.6

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		E	D	A		F	C	A	F	F		F
Approach Delay (s/veh)			36.4				28.0			157.0		
Approach LOS			D				C			F		
Queue Length 50th (ft)		122	~970	0		168	365	0	160	~306		~293
Queue Length 95th (ft)		m131	m#1154	m0		#324	410	0	#253	#491		#470
Internal Link Dist (ft)			944				998			1001		
Turn Bay Length (ft)		435		510		350		150	130			350
Base Capacity (vph)		346	2025	1599		174	2853	1560	339	185		177
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.72	1.00	0.22		0.97	0.57	0.15	0.93	1.34		1.32

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 55 (37%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay (s/veh): 54.6 Intersection LOS: D
Intersection Capacity Utilization 105.9% ICU Level of Service G
Analysis Period (min) 15
Description: 04-1086
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
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: 5: Shotwell Rd & US 70 BUS



Lane Group	SBT	SBR
LOS	F	B
Approach Delay (s/veh)	128.9	
Approach LOS	F	
Queue Length 50th (ft)	175	14
Queue Length 95th (ft)	#330	96
Internal Link Dist (ft)	979	
Turn Bay Length (ft)		350
Base Capacity (vph)	186	318
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.95	0.61

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2139	61	0	0	0	135
Future Volume (vph)	2139	61	0	0	0	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3539	1583	0	0	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	0	0	1611
Link Speed (mph)	55			55	25	
Link Distance (ft)	127			429	1145	
Travel Time (s)	1.6			5.3	31.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2377	68	0	0	0	150
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

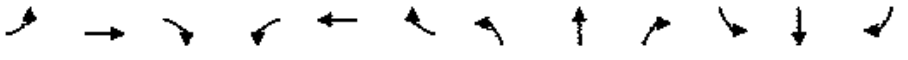
Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2139	61	0	0	0	135
Future Vol, veh/h	2139	61	0	0	0	135
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	-	-	-	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	2377	68	0	0	0	150

Major/Minor	Major1			Minor1	
Conflicting Flow All	0	0		-	1188
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	-		-	6.94
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	-		-	3.32
Pot Cap-1 Maneuver	-	-		0	181
Stage 1	-	-		0	-
Stage 2	-	-		0	-
Platoon blocked, %	-	-			
Mov Cap-1 Maneuver	-	-		-	181
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	NB
HCM Control Delay, s/v	0	81.17
HCM LOS		F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	181	-	-
HCM Lane V/C Ratio	0.831	-	-
HCM Control Delay (s/veh)	81.2	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	5.8	-	-



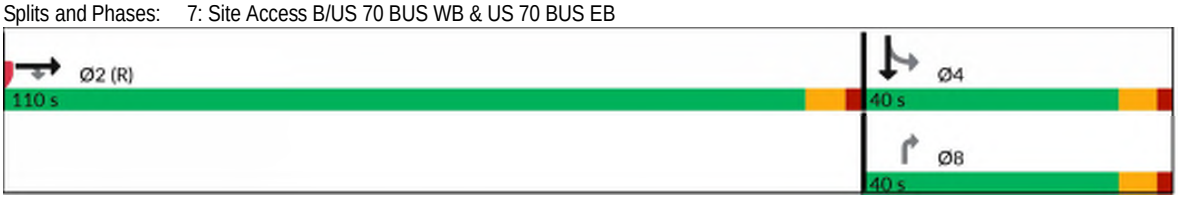
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2102	133	0	0	0	0	0	390	23	369	0
Future Volume (vph)	0	2102	133	0	0	0	0	0	390	23	369	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		2	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	2787	0	3529	0
Flt Permitted											0.997	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	2787	0	3529	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			55	
Link Distance (ft)		177			789			1074			332	
Travel Time (s)		4.0			17.9			29.3			4.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2190	139	0	0	0	0	0	406	0	408	0
Turn Type		NA	Perm						Perm	Perm	NA	
Protected Phases		2									4	
Permitted Phases			2						8	4		
Detector Phase		2	2						8	4	4	
Switch Phase												
Minimum Initial (s)		12.0	12.0						7.0	7.0	7.0	
Minimum Split (s)		25.0	25.0						25.0	25.0	25.0	
Total Split (s)		110.0	110.0						40.0	40.0	40.0	
Total Split (%)		73.3%	73.3%						26.7%	26.7%	26.7%	
Yellow Time (s)		5.0	5.0						5.0	5.0	5.0	
All-Red Time (s)		2.0	2.0						2.0	2.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0						-2.0		-2.0	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max						None	None	None	
Act Effct Green (s)		111.1	111.1						28.9		28.9	
Actuated g/C Ratio		0.74	0.74						0.19		0.19	
v/c Ratio		0.84	0.12						0.76		0.60	
Control Delay (s/veh)		10.1	3.1						66.4		46.8	
Queue Delay		0.2	0.0						0.0		0.0	
Total Delay (s/veh)		10.3	3.1						66.4		46.8	

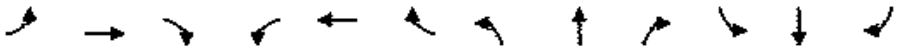
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B	A						E		D	
Approach Delay (s/veh)		9.8						66.4			46.8	
Approach LOS		A						E			D	
Queue Length 50th (ft)		203	18						215		147	
Queue Length 95th (ft)		677	m28						269		m183	
Internal Link Dist (ft)		97			709			994			252	
Turn Bay Length (ft)												
Base Capacity (vph)		2621	1172						650		823	
Starvation Cap Reductn		0	0						0		0	
Spillback Cap Reductn		57	0						0		0	
Storage Cap Reductn		0	0						0		0	
Reduced v/c Ratio		0.85	0.12						0.62		0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 16 (11%), Referenced to phase 2:EBT and 6:, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 21.9		Intersection LOS: C	
Intersection Capacity Utilization 95.1%		ICU Level of Service F	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Site Access B/US 70 BUS WB & US 70 BUS EB





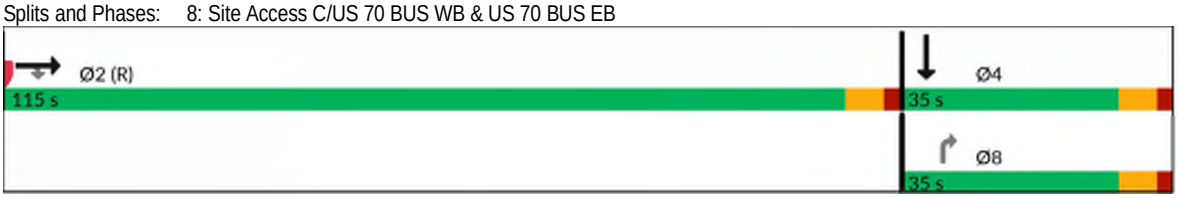
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2305	62	0	0	0	0	0	359	0	274	0
Future Volume (vph)	0	2305	62	0	0	0	0	0	359	0	274	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		2	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	2787	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	2787	0	1863	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			51						29			
Link Speed (mph)		55			30			25			55	
Link Distance (ft)		196			965			1015			157	
Travel Time (s)		2.4			21.9			27.7			1.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2561	69	0	0	0	0	0	399	0	304	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									4	
Permitted Phases			2						8			
Detector Phase		2	2						8		4	
Switch Phase												
Minimum Initial (s)		12.0	12.0						7.0		7.0	
Minimum Split (s)		25.0	25.0						25.0		25.0	
Total Split (s)		115.0	115.0						35.0		35.0	
Total Split (%)		76.7%	76.7%						23.3%		23.3%	
Yellow Time (s)		5.0	5.0						5.0		5.0	
All-Red Time (s)		2.0	2.0						2.0		2.0	
Lost Time Adjust (s)		-2.0	-2.0						-2.0		-2.0	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max						None		None	
Act Effct Green (s)		111.5	111.5						28.5		28.5	
Actuated g/C Ratio		0.74	0.74						0.19		0.19	
v/c Ratio		0.97	0.06						0.72		0.86	
Control Delay (s/veh)		21.1	2.6						60.7		74.7	
Queue Delay		0.0	0.0						0.0		0.0	
Total Delay (s/veh)		21.1	2.6						60.7		74.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C	A						E		E	
Approach Delay (s/veh)		20.6						60.7			74.7	
Approach LOS		C						E			E	
Queue Length 50th (ft)		457	2						193		230	
Queue Length 95th (ft)		#1465	m13						260		m#406	
Internal Link Dist (ft)		116			885			935			77	
Turn Bay Length (ft)												
Base Capacity (vph)		2630	1189						580		372	
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	0.06						0.69		0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 135 (90%), Referenced to phase 2:EBT and 6:, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay (s/veh): 30.3		Intersection LOS: C	
Intersection Capacity Utilization 135.8%		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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Site Access C/US 70 BUS WB & US 70 BUS EB





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	2060	61	0
Future Volume (vph)	0	0	0	2060	61	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	0	0	0	3539	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3539	1770	0
Link Speed (mph)	55			55	25	
Link Distance (ft)	976			372	158	
Travel Time (s)	12.1			4.6	4.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	2289	68	0
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

9: U-Turn East of Access C & US 70 BUS WB Performance by approach

Approach	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	3.0	52.5	4.5

Intersection: 9: U-Turn East of Access C & US 70 BUS WB

Movement	WB	NB
Directions Served	T	L
Maximum Queue (ft)	2	130
Average Queue (ft)	0	50
95th Queue (ft)	2	107
Link Distance (ft)	328	98
Upstream Blk Time (%)		5
Queuing Penalty (veh)		3
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Appendix L:
Traffic Signal Plans

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PROJECT REFERENCE NO.	SHEET NO.

PHASING DIAGRAM

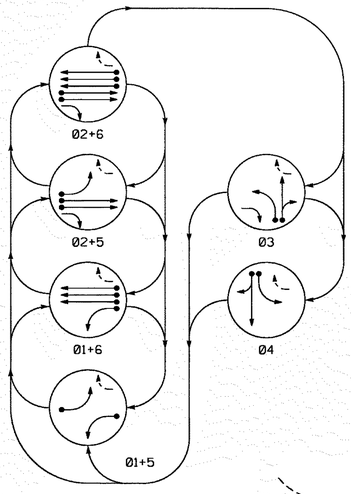


TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03	04	FLASH
11	←	←	R	R	R	R	R
21	R	R	G	G	R	R	Y
22	R	R	G	G	R/G	R	Y
31	R	R	R	R	G	R	R
32,33	R	R	R	R	G	R	R
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
51	←	R	←	R	R	R	R
61, 62	R	G	R	G	R	R	Y

SIGNAL FACE I.D.

All Heads L.E.D.

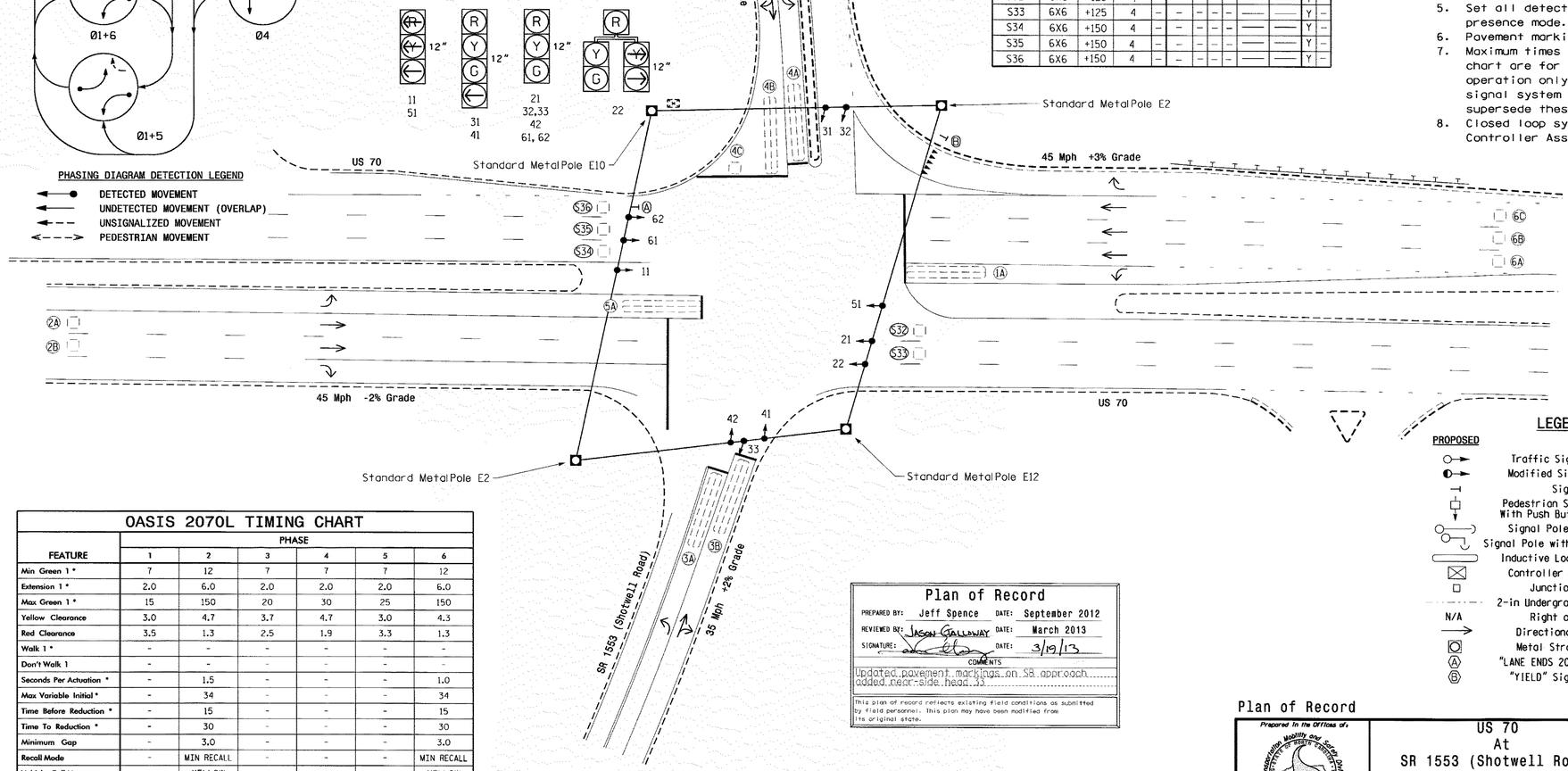
OASIS 2070L LOOP & DETECTOR INSTALLATION

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
1A	6x40	0	2-4-2	–	1	Y	Y	–	——	——	–	–
2A	6x6	300	6	–	2	Y	Y	–	——	——	–	–
2B	6x6	300	6	–	2	Y	Y	–	——	——	–	–
3A	6x40	0	2-4-2	–	3	Y	Y	–	——	3	–	–
3B	6x40	0	2-4-2	–	3	Y	Y	–	——	10	–	–
4A	6x40	0	2-4-2	–	4	Y	Y	–	——	3	–	–
4B	6x40	0	2-4-2	–	4	Y	Y	–	——	10	–	–
4C	6x6	0	3	–	4	Y	Y	–	——	15	–	–
5A	6x40	0	2-4-2	–	5	Y	Y	–	——	——	–	–
6A	6x6	300	6	–	6	Y	Y	–	——	——	–	–
6B	6x6	300	6	–	6	Y	Y	–	——	——	–	–
6C	6x6	300	6	–	6	Y	Y	–	——	——	–	–
S32	6X6	+125	4	–	–	–	–	–	——	——	Y	–
S33	6X6	+125	4	–	–	–	–	–	——	——	Y	–
S34	6X6	+150	4	–	–	–	–	–	——	——	Y	–
S35	6X6	+150	4	–	–	–	–	–	——	——	Y	–
S36	6X6	+150	4	–	–	–	–	–	——	——	Y	–

6 Phase
Fully Actuated
Clayton US 70 Closed Loop System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated July 2012 and "Standard Specifications for Roads and Structures" dated July 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 or phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Set all detector units to presence mode.
6. Pavement markings are existing.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
8. Closed loop system data: Controller Asset #: 1086.



OASIS 2070L TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6
Min Green 1 *	7	12	7	7	7	12
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0
Max Green 1 *	15	150	20	30	25	150
Yellow Clearance	3.0	4.7	3.7	4.7	3.0	4.3
Red Clearance	3.5	1.3	2.5	1.9	3.3	1.3
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	-	1.0
Max Variable Initial *	-	34	-	-	-	34
Time Before Reduction *	-	15	-	-	-	15
Time To Reduction *	-	30	-	-	-	30
Minimum Gap	-	3.0	-	-	-	3.0
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Plan of Record

PREPARED BY:	Jeff Spence	DATE:	September 2012
REVIEWED BY:	Jason Galloway	DATE:	March 2013
SIGNATURE:		DATE:	3/19/13

COMMENTS

Updated pavement markings on SB approach added near-side head 33

This plan of record reflects existing field conditions as submitted by field personnel. This plan may have been modified from its original state.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Strain Pole	
Ⓐ	"LANE ENDS 2000 FT" Sign	Ⓐ
Ⓑ	"YIELD" Sign (R1-2)	Ⓑ

Plan of Record

Prepared in the Offices of:
Transportation Mobility and Safety Division
Traffic Engineering Branch
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 30 1"=30'

US 70
At
SR 1553 (Shotwell Road)

Division 4 Johnston County Clayton

PLAN DATE:	December 2006	REVIEWED BY:	
PREPARED BY:	Sterling	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL

Not a certified document. This document originally issued and sealed by Robert J. Ziemba, 26486 on 1/24/07 This document shall not be considered a certified document.

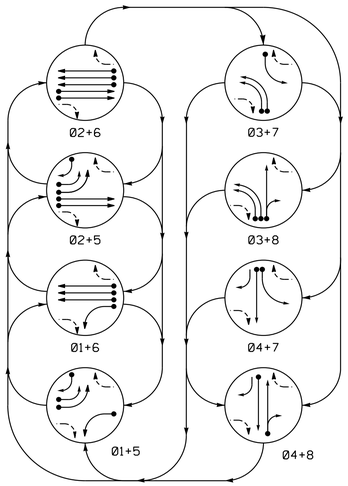
SIGNATURE DATE

SIG. INVENTORY NO. 04-1086

15-MAR-2013 14:01
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jgalloway

PROJECT REFERENCE NO.	SHEET NO.
HL-0127	Sig. 1.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

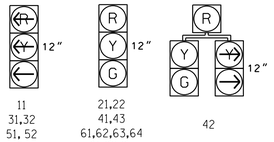
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	←	←	R	R	R	R	R	R	R
21,22	R	R	G	G	R	R	R	R	R
31,32	R	R	R	R	←	←	R	R	R
41,43	R	R	R	R	R	R	G	G	R
42	R/←	R	R/←	R	R	R	G	G	R
51,52	←	R	←	R	R	R	R	R	R
61,62,63,64	R	G	R	G	R	R	R	R	R
71	R	R	R	R	R	←	←	R	R
81,82,83	R	R	R	R	R	G	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



11
31,32
51, 52
71

21,22
41,43
61,62,63,64
81,82,83

42

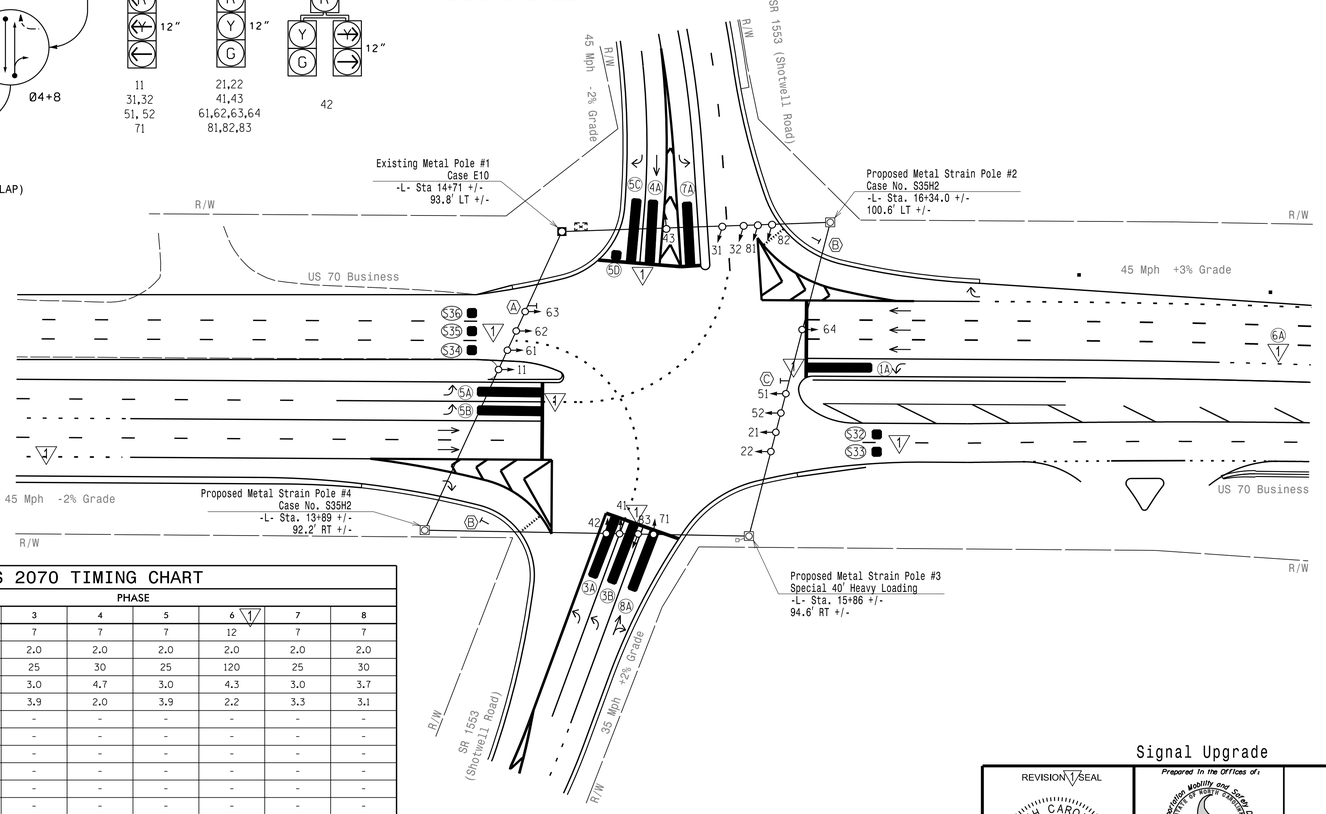
OASIS 2070 LOOP & DETECTOR INSTALLATION

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
1A	6x40	0	*	Y	1	Y	Y	–	–	–	–	–
3A	6x40	0	*	Y	3	Y	Y	–	–	3	–	–
3B	6x40	0	*	Y	3	Y	Y	–	–	-	–	–
4A	6x40	0	*	Y	4	Y	Y	–	–	-	–	–
5A	6x40	0	*	Y	5	Y	Y	–	–	–	–	–
5B	6x40	0	*	Y	5	Y	Y	–	–	–	–	Y
5C	6x40	0	*	Y	5	Y	Y	–	–	15	–	–
5D	6x6	0	*	Y	5	Y	Y	–	–	15	–	–
7A	6x40	0	*	Y	7	Y	Y	–	–	-	–	–
8A	6x40	0	*	Y	8	Y	Y	–	–	10	–	–
S32	6X6	+200	*	Y	–	–	–	–	–	–	Y	–
S33	6X6	+200	*	Y	–	–	–	–	–	–	Y	–
S34	6X6	+200	*	Y	–	–	–	–	–	–	Y	–
S35	6X6	+200	*	Y	–	–	–	–	–	–	Y	–
S36	6X6	+200	*	Y	–	–	–	–	–	–	Y	–

* Multi-zone Microwave Detection

Radar Detection System

FUNCTION	Sensor 1 (2A)		Sensor 2 (6A)	
Channel	1	2	1	2
Phase	2	2	6	6
Direction of Travel	EB	EB	WB	WB
Detection Zone (ft)	100-600	100-150	100-600	100-150
Enable Speed	Y	Y	Y	Y
Speed Range (mph)	35-100	1-35	35-100	1-35
Enable Estimated Time of Arrival	Y	N	Y	N
Estimated Time of Arrival (sec)	1.0-6.5	-	1.0-6.5	-



OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2 (1)	3	4	5	6 (1)	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Max Green 1 *	25	120	25	30	25	120	25	30
Yellow Clearance	3.0	4.7	3.0	4.7	3.0	4.3	3.0	3.7
Red Clearance	4.3	1.7	3.9	2.0	3.9	2.2	3.3	3.1
Walk 1 *	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation *	-	-	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

8 Phase
Fully Actuated
US 70 Bus. - NC 42 (Clayton) CLS
Signal System D04-01

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
5. Set all detector units to presence mode.
6. Refer to HL-0127 Pavement Marking Plans for pavement markings.
7. (1) This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
9. Closed loop system data: Controller Asset #: 1086.

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
○—	Signal Pole with Guy	●—
○⌐	Signal Pole with Sidewalk Guy	●⌐
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	⊠
□	Junction Box	■
□	Oversized Junction Box	■
-·-·-	2-in Underground Conduit	-·-·-
———	Right of Way	———
→	Directional Arrow	→
⊠	Strain Pole	□
□→	Pedestrian Signal Head With Push Button & Sign	■→
(A)	"LANE ENDS 2000 FT" Sign	(A)
(B)	"YIELD" Sign (R1-2)	(B)
(C)	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	(C)
(1) ▬	Multi-zone Microwave Detection	▬

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Signal Upgrade

REVISION (1) SEAL

NORTH CAROLINA PROFESSIONAL SEAL 047646 ENGINEER BAILEY M. HARDEN

DocuSigned by: Bailey Harden DCEF3411823544D5 — 10/31/2024 DATE

Prepared In the Offices of: Transportation Mobility and Safety Division, Traffic Engineering Branch, Signal Design Section

750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40' 1"=40'

US 70 Business at SR 1533 (Shotwell Road)

Division 4 Johnston County Clayton

PLAN DATE: May 2024 REVIEWED BY: P. Koloski

PREPARED BY: S.G. Haynie REVIEWED BY:

REVISIONS	INIT.	DATE
(1) Deployed Multi-zone Microwave Detection; implemented Red-Red flash operation (kgp).	BJH	10/31/2024

SEAL

Not a certified document as to the Original Document but Only as to the Revisions - This document originally issued and sealed by Steven G. Haynie, PE-029531 on 05/17/2024 This document is only certified as to the revisions.

SIGNATURE DATE

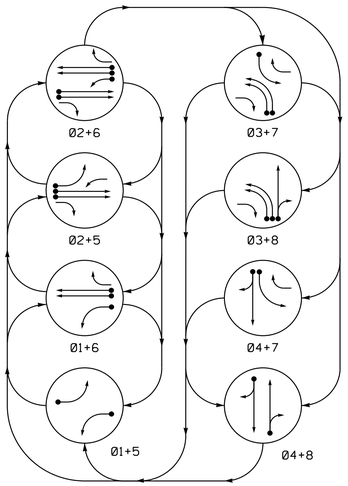
SIG. INVENTORY NO. 04-1086

31-OCT-2024 15:57
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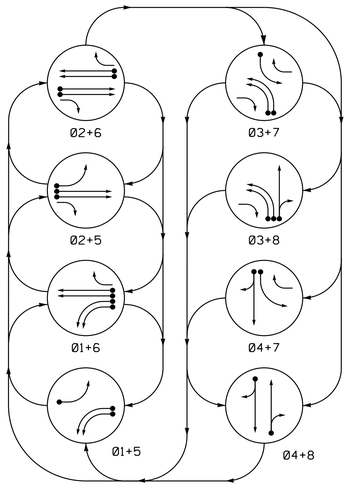
PROJECT REFERENCE NO.	SHEET NO.
VNLTL	Sig. 2.0

8 Phase
Fully Actuated
US 70 Bus-NC 42 (Clayton) CLS

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

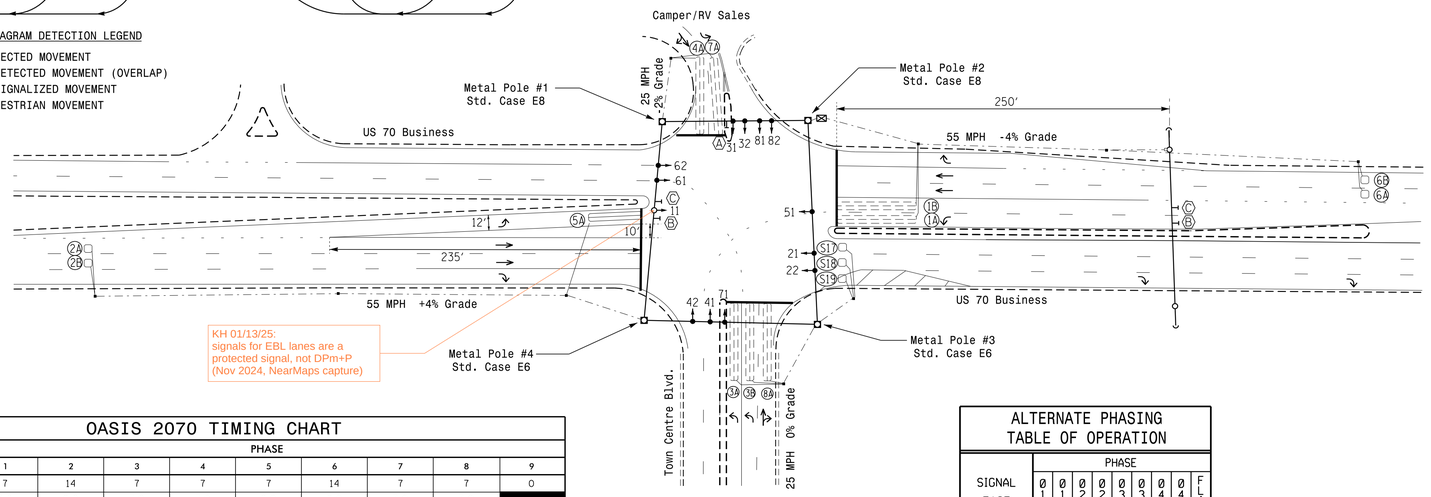
DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	←-	←-	←-	←-	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
21	R	R	G	G	R	R	R	R	Y
22	R	R	G	G	R	R	R	R	Y
31, 32	~~R~~	~~R~~	~~R~~	~~R~~	←-	←-	~~R~~	~~R~~	~~R~~
41, 42	R	R	R	R	R	R	G	G	R
51	←-	~~R~~	←-	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
61	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R	R	R	R	Y
71	~~R~~	~~R~~	~~R~~	~~R~~	←-	~~R~~	←-	~~R~~	~~R~~
81, 82	R	R	R	R	R	G	R	G	R
Sign C	X	X	X	X	X	X	X	X	DRK

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
1A	6X60	0	2-4-2	-	1	Y	Y	-	-	15 *	-	Y
					6#	Y	Y	-	-	3	-	Y
1B	6X60	0	2-4-2	-	1##	Y	Y	-	-	-	-	Y
2A	6X6	420	6	-	2	Y	Y	-	-	-	-	Y
2B	6X6	420	6	-	2	Y	Y	-	-	-	-	Y
3A	6X60	0	2-4-2	-	3	Y	Y	-	-	-	-	Y
3B	6X60	0	2-4-2	-	3	Y	Y	-	-	-	-	Y
4A	6X60	0	2-4-2	-	4	Y	Y	-	-	10	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	-	-	Y
6A	6X6	420	5	-	6	Y	Y	-	-	-	-	Y
6B	6X6	420	5	-	6	Y	Y	-	-	-	-	Y
7A	6X60	0	2-4-2	-	7	Y	Y	-	-	3	-	Y
8A	6X60	0	2-4-2	-	8	Y	Y	-	-	10	-	Y
S17	6X6	+150	4	-	-	-	-	-	-	-	Y	Y
S18	6X6	+150	4	-	-	-	-	-	-	-	Y	Y
S19	6X6	+150	4	-	-	-	-	-	-	-	Y	Y

* Disable Delay During Alternate Phasing Operation.
\# Disable Phase Call For Loop(s) During Alternate Phasing Operation.
\## Disable Phase Call For Loop(s) During Default Phasing Operation.



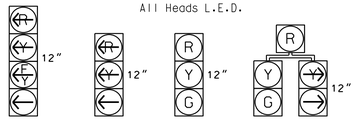
OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8	9
Min Green 1 *	7	14	7	7	7	14	7	7	0
Extension 1 *	3.0	8.0	3.0	3.0	2.0	8.0	3.0	3.0	
Max Green 1 *	25	180	20	15	15	180	20	15	
Yellow Clearance	4.0	5.1	4.0	4.0	4.0	5.1	4.0	4.0	3.0
Red Clearance	3.3	2.0	3.7	3.0	2.5	2.0	2.5	3.0	0
Walk 1 *	-	-	-	-	-	-	-	-	
Don't Walk 1	-	-	-	-	-	-	-	-	
Seconds Per Actuation *	-	3.0	-	-	-	3.0	-	-	
Max Variable Initial *	-	46	-	-	-	46	-	-	
Time Before Reduction *	-	40	-	-	-	40	-	-	
Time To Reduce *	-	70	-	-	-	70	-	-	
Minimum Gap	-	3.0	-	-	-	3.0	-	-	
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-	
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-	
Dual Entry	-	-	-	-	-	-	-	-	
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

SIGNAL FACE I.D.

All Heads L.E.D.



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	←-	←-	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
21	R	R	G	G	R	R	R	R	Y
22	R	R	G	G	R	R	R	R	Y
31, 32	~~R~~	~~R~~	~~R~~	~~R~~	←-	←-	~~R~~	~~R~~	~~R~~
41, 42	R	R	R	R	R	R	G	G	R
51	←-	~~R~~	←-	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
61	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R	R	R	R	Y
71	~~R~~	~~R~~	~~R~~	~~R~~	←-	~~R~~	←-	~~R~~	~~R~~
81, 82	R	R	R	R	R	G	R	G	R
Sign C	ON	ON	ON	ON	ON	ON	ON	ON	DRK

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Reposition existing signal head number 51.
4. Phase 1 and/or phase 5 may be lagged.
5. Phase 3 and/or phase 7 may be lagged.
6. Set all detector units to presence mode.
7. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
8. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
9. Pavement markings are existing unless otherwise shown.
10. The Division Traffic Engineer will determine the hours of use for each phasing plan.
11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
12. Closed loop system data:
    Controller Asset #: 1292.
13. The variable lane control sign (C) shall transition from a Left Arrow display to a Red "X" by first displaying a Yellow "X". The display time for the the Yellow "X" shall be equal to the Yellow Change time for Phase 1.

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□↓	Pedestrian Signal Head	■↓
	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	→
◎	Metal Strain Pole	◘
Ⓐ	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	Ⓐ
Ⓑ	Left Arrow "ONLY" Sign (R3-5L)	Ⓑ
Ⓒ	L.E.D. Variable Lane Control Sign	Ⓒ

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
NCDOT DEPARTMENT OF TRANSPORTATION
Traffic Engineering Branch
Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

US 70 Business
at
Town Centre Blvd.

Division 4 Johnston County Clayton

PLAN DATE:	March 2019	REVIEWED BY:	RJ Ziemba
PREPARED BY:	JP Galloway	REVIEWED BY:	

REVISIONS	INIT.	DATE

SCALE 0 50 1"=50'

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 026486 ROBERT J. ZIEMBA
DocuSigned by: 1000498DD7A440R... 1/9/2025
SIG. INVENTORY NO. 04-1292

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rziemba

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

DELIVERY VIA EMAIL

June 25, 2025

Courtney Tanner
Deputy Town Manager
Town of Clayton
111 East Second Street
Clayton, NC 27528

COUNTY: Johnston

SUBJECT: **NCDOT Final Review of Heavner Property TIA - Revised**

Dear Ms. Tanner,

Highway Division Four (4) has reviewed the Traffic Impact Analysis (TIA) for the subject development and offers the following comments. All requirements or recommendations included herein are based on current Department policies. **This review should not be mistaken for approval of the driveway permit, design/construction plans, or final plat.** A driveway permit must be obtained prior to construction. All design aspects of any submitted plans shall comply with the current NCDOT Standard Specifications for Roads and Structures and Policy on Street and Driveway Access to North Carolina Highways.

GENERAL COMMENTS

- Any roadway improvements and right-of-way dedication necessary to accommodate the road construction shall be the responsibility of the owner/developers. All required ROW shall be dedicated as public ROW in the final plat. Installation of right turn lanes will typically require at least 15' of dedication.
- Lane Closures for required improvement construction will only be permitted under restricted hours due to heavy traffic volumes in the vicinity of the proposed development. These restrictions will be determined during the driveway permitting application and approval.
- These conditions are based on current traffic volumes and projected growth for the study area. If the proposed build-out year for this development, as stated in the TIA, varies more than one year an addendum or revised TIA may be required.
- Improvements being identified by a TIA for an adjacent development does not dismiss or release this development from installation and/or participation of these improvements. It is recommended that the Developers coordinate this installation with other committed developments. The Department will not participate in determining the value of each individual contribution to this roadway improvement.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS | DIV. 4 DIST. 3
67 JR RD SUITE 700
SELMA, NC 27576

Telephone: (919) 739-5300
Fax: (919) 731-2017
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
67 JR RD SUITE 700
SELMA, NC 27576

- Any additional improvements that are constructed after the completion of this TIA must be maintained while constructing the improvements required by this letter.

INTERSECTIONS / SITE ACCESSES AND ASSOCIATED IMPROVEMENTS

US 70:

- Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at each site access.

US 70 at Site Access A:

- Site Access A
  - Right-in/Right-out only access with one ingress lane and one egress lane
  - 150' Internal Protected Stem

US 70 at Gateway Drive/Site Access B:

- Reconfigure intersection to a thru-cut configuration, permitting all intersection movements except for the northbound and southbound through movements.
- US 70
  - Construct an additional 300' WB Left-Turn Lane
  - Extend storage of existing WB Left-Turn to 300'
- Site Access B
  - Construct with two ingress lanes and four egress lanes
  - Dual northbound left-turn lanes and dual northbound right-turn lanes on Site Access B
  - 200' Internal Protected Stem
  - Provide separate 50' left- and right- turn lanes on the southbound approach of Gateway Drive
- Install traffic signal

US 70 at Medical Park Place/Site Access C:

- US 70
  - Extend storage of existing U S70 WB Left-Turn Lane to 450'
- Site Access C
  - Left-in/Right-in/Right-out access with one ingress lane and two egress lanes
  - 200' Internal Protected Stem
- Install traffic signal for the US 70 EB/Site Access C Intersection.

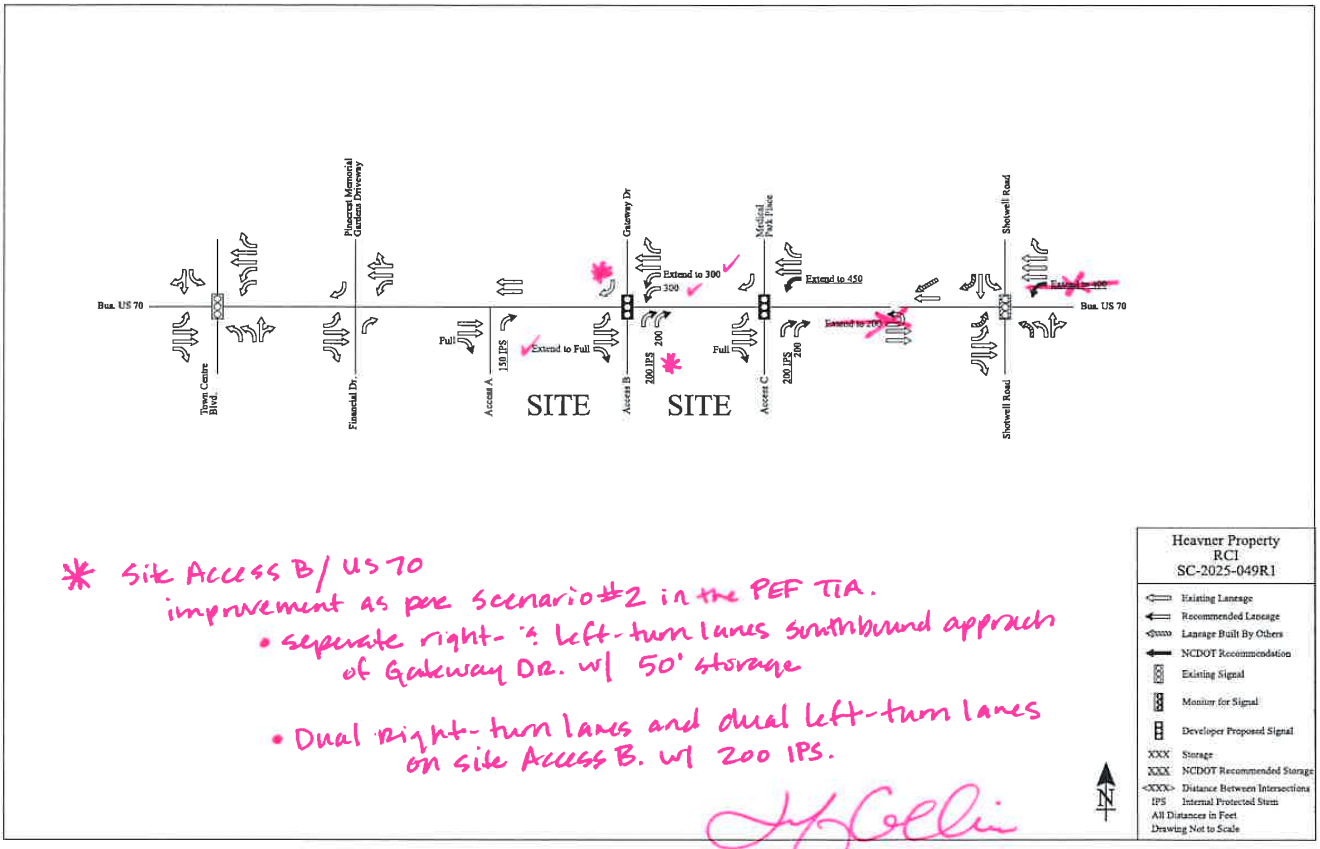
Please note additional development may require additional improvements in the future. Feel free to contact me if you have any additional questions or concerns.

Sincerely,



Jennifer K. Collins
District Engineer

cc: Andy Brown, PE – Acting Division Engineer
Paul Marak, PE - Division Traffic Engineer
Doumit Y. Ishak, Congestion Mgmt. Regional Engineer
Charles Sorrell – Congestion Management Project Design Engineer
Kevin Dean – Kimley-Horn
Driveway Permit File



* Site Access B / US 70
improvement as per scenario #2 in the PEF TIA.
- separate right- & left-turn lanes southbound approach of Gateway Dr. w/ 50' storage
- Dual right-turn lanes and dual left-turn lanes on site Access B. w/ 200 IPS.

Jennifer Collins
Div 4 Dist. 3 Engineer
6/14/25

X - Extension of existing US 70 EB Left U-Turn Lane to 200' between Medical Park Place / Site Access C and Shotwell Road is not required.

X - Extension of WB Left-Turn Lane @ US 70 B & Shotwell Rd to 400' is not required.

6/25/25

Heavner Conditional Rezoning | 2025-23-CZM

Motions for Consistency Statements
The Town Council may choose from one of the four suggested motions below.
Staff Recommends the Motion in Red Bold Text

Motion 1: Approval – Consistent with the 2045 Comprehensive Growth Plan

I make a motion toapprove the Heavner Conditional Rezoning, the associated Concept Plan, and Conditions of Approval, Ordinance # 2025-08-02, based on consistency with the adopted 2045 Comprehensive Growth Plan, in that:

- The properties are designated in the Future Land Use Map as High Density Residential with a Community Center Overlay.
- Goal LU1: Preserves Clayton's Character while allowing for growth and development in appropriate areas.
- Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
- Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

This action is reasonable and in the public interest, in that:

- The Comprehensive Growth Plan encourages a mixture of uses in this area with high density residential due to proximity to major transportation corridors and existing commercial areas.
- The request is compatible with existing zoning and land uses in the area.

Motion 2: Approval – Inconsistent with the 2045 Comprehensive Growth Plan

I make a motion to approvethe Heavner Conditional Rezoning, the associated Concept Plan, and Conditions of Approval, Ordinance # 2025-08-02. While the request is generally consistent with the adopted 2045 Comprehensive Growth Plan, in that:

- Goal LU1: Preserves Clayton's Character while allowing for growth and development in appropriate areas.
- Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
- Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

The request is specifically inconsistent, in that:

- The properties are designated in the Future Land Use Map as High Density Residential with a Community Center Overlay.

This action is reasonable and in the public interest, in that:

- The request is compatible with existing zoning and land uses in the area.

Motion 3: Denial – Consistent with the 2045 Comprehensive Growth Plan

I make a motion to deny this rezoning request, Ordinance # 2025-08-02. While the request is consistent with the adopted 2045 Comprehensive Growth Plan, in that:

- The properties are designated as High Density Residential with a Community Center Overlay.
- Goal LU1: Preserves Clayton's Character while allowing for growth an development in appropriate areas.
- Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
- Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

This action is reasonable and in the public interest, in that:

- The requested rezoning is incompatible with existing land uses in the area.
- The current zoning designation is preferable to the area.

Motion 4: Denial – Inconsistent with the 2045 Comprehensive Growth Plan

I make a motion to deny this rezoning request, Ordinance # 2025-08-02. While the request is consistent with the adopted 2045 Comprehensive Growth Plan, in that:

- Goal LU1: Preserves Clayton's Character while allowing for growth and development in appropriate areas.
- Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
- Goal LU 3: Encourages a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.

The request is specifically inconsistent, in that:

- The properties are designated as High Density Residential with a Community Center Overlay.

This action is reasonable and in the public interest, in that:

- The current zoning designation is preferable to the area.

Column

INTERIM AD DRAFT

This is the proof of your ad scheduled to run in **Johnstonian News - (Johnston County)** on the dates indicated below. If changes are needed, please contact us prior to deadline at **(919) 284-2295**. Please note: when you submit a legal document, you are responsible for ensuring payment for the associated fees or charges are paid.

Notice ID: tpmZ0siPqUvfkVzaVMW5 | **Proof Updated: Jul. 30, 2025 at 10:08am EDT**
Notice Name: 2025-10-CZM,2025-23-CZM,2025-140-CZM,Coulon

This is not an invoice. Below is an estimated price, and it is subject to change. You will receive an invoice with the final price upon invoice creation by the publisher.

FILER	FILING FOR
Sam Johnson-Phillips sphillips@townofclaytonnc.org (919) 553-5002	Johnstonian News - (Johnston County)

Columns Wide: 1 **Ad Class:** Legals

08/06/2025: Other	168.00
08/13/2025: Other	168.00

Subtotal	$336.00
Tax %	0
Processing Fee	$38.60
Total	**$374.60**

See Proof on Next Page

PUBLIC NOTICE

The Clayton Town Council will hold Public Hearings at 6:00 PM on Monday August 18, 2025, at Town Hall, 111 E. Second Street, regarding the applications listed and described below. These public hearings have been scheduled and will be heard in accordance with the requirements of NCGS.

· 2025-10-CZM Clayton Mixed Use (Dominium) Conditional Rezoning: Request to rezone one parcel (3.3 acres) from Corridor Commercial (CRM) to Conditional Zoning Commercial (CZC) district. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The applicant is proposing to develop a 167-unit senior living facility and up to 6,400 SF of commercial development. The parcel is located off Pritchard Road, Waterfield Drive, Swann Trail, and Collinsworth Road. PIN # 177000-18-0722.

· 2025-23-CZM Heavner Property Conditional Rezoning: Request to rezone two parcels (74.08 acres) from Corridor Commercial (CRM) and Residential Large Lot (RLL) to Conditional Zoning Commercial (CZC) District. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The applicant proposes up to 51.60 acres of the site to include commercial development, with 15.90 additional acres consisting of multi-family development. The parcels are located off Clayton Blvd, east of Financial Drive, Town Centre Blvd, and Scholar Drive. PIN #s 165909-05-8421 & 165909-15-8400.

· 2025-140-CZM FluroFusion Conditional Rezoning: Request to rezone one parcel (3.88 acres) of land from Heavy Industrial (HID) to Conditional Industrial (CZI) District. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The request includes allowance of Heavy Manufacturing with a 100-foot distillation tower. The parcel is located on Powhatan Road between NC Railroad Company and Best Wood Dr. PIN # 167700-59-3446.

· 2024-77-ANX Coulon Company Annexation: Request of a non-contiguous annexation to annex approximately 5.23 acres of land in the Town's ETJ into the Town's Corporate Limits. The property is located at 3733 Powhatan Road and described as follows: Beginning at the approximate centerline intersection of Powhatan Road, NCSR 1901, and the North Carolina Railroad Company right-of-way, said point being the place and point of beginning; Thence leaving the Powhatan Road centerline and following the center of the North Carolina Railroad Company right-of-way S53°09'15"E459.51 feet to an existing iron pipe; Thence leaving the center of the North Carolina Railroad right-of-way S36°47'45"W 99.64 feet to an existing iron pipe; Thence S36°47'45"W 449.17 feet to an existing rebar; Thence N53°25'18"W 355.26 feet to an existing iron pipe on the eastern right-of way of Powhatan Road; Thence N53°25'18"W 32.59 feet to a point in the approximate centerline of Powhatan Road; Thence with the approximate centerline of Powhatan Road along a curve having a Radius of 693.25 feet, an Arc Length of 189.70 feet, and a chord bearing and distance of N34°16'59"E 189.11 feet to a point; Thence N26°51'17"E367.41 feet to the place and point of beginning and containing 5.23 acres more or less. PIN # 167700-59-3446.

These are open meetings, and the public is invited to attend. To obtain more information regarding these applications, members of the public may contact the Planning Department at 919-553-5002 or email at planning@townofclaytonnc.org .

Heidi Holland, CMC, NCCMC
Town Clerk
Town of Clayton
919-553-5002 ext. 5004

The Johnstonian Newspaper

Please advertise on the following dates:

August 6, 2025
August 13, 2025

Affidavit of publication required.
The Johnstonian
August 6, 13, 2025

Docusign Envelope ID: 2368A39B-C17C-471D-AA3F-F6DD03AE8267

NEIGHBORHOOD MEETING SUMMARY FORM

FILL OUT THE FOLLOWING:

Application:	2025-23-CZM
Date of Mailing:	N/A contact by phone/e-mail
Date of Meeting:	8-6-25 Time of Meeting: 6:30-9:30pm
Location of Meeting:	Cleveland Draft House - Clayton
Printed Name:	Tom Lowell Signature: Signed by: Thomas Lowell 31194B8413724A2...

Meeting Summary/Minutes: *provide a summary of the discussion held at the meeting, including issues raised and any resolution discussed, and any changes made to the application as a result of the meeting.*

A meeting with several neighbors was held to discuss concerns. The topics covered included:

- Construction traffic - TBD for entrance, not Lightfoot Dr.
- Lightfoot Drive - Emergency access connection
- Lighting - will meet the UDO with max illumination of 1.0 at RL lot lines
- Barrier/Fence/Wall/Buffers - There will not be an increase to the 40' buffer width, but we can look at additional plantings, using a retaining wall to keep areas undisturbed, preserve vegetation, supplement with evergreen, use plantings that deter people (ie. prickly bushes such as Holly), use a larger amount of evergreen or more if it will not be over planting; Type D buffer is opaque.
- Stormwater - pre and post levels explained. Further conversation with impacted neighbor to be held in future.
- Trash trucks turn around at end of Lightfoot on Heavner property

Please write clearly (or submit a typed summary). Use additional sheets if necessary.

Docusign Envelope ID: 2368A39B-C17C-471D-AA3F-F6DD03AE8267

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: HEAVNER PROPERTY

Application: CONDITIONAL ZONING

Location/Date: CLEVELAND DRAFT HOUSE, CLAYTON 8/6/2025

	NAME	ADDRESS
1	Bill + Mattie Brewer	744 LIGHTFOOT Dr Clayton NC
2	Art + Joy Mercer	741 Lightfoot Dr. 27520 (Clayton NC)
3	Raymond & Detria Blount	740 Lightfoot Dr. Clayton NC 27520
4	Brandi Cortez	721 Lightfoot Dr. Clayton NC 27520
5	Nick + Kim Ferez	780 Lightfoot dr. Clayton 27520
6	David Outlaw	724 LIGHT FOOT DR. Clayton 27520
7	Mary Wood	736 Lightfoot Dr. Clayton 27520
8	Bill Williams	1014 Mulberry Rd 27520
9	TROY DETHROW	717 FERNWOOD DRIVE 27520
10	Dan Shaw	728 Lightfoot Drive 27520
11	Donald & Diane Sauls	1017 Mulberry Rd, Clayton NC, 27520
12	Chris & Sharon Braswell	745 Lightfoot Dr Clayton NC 27520
13	Jesse Dayhoff	1008 Mulberry Road 27520
14	Ernie & DeAnne Phillips	1009 Mulberry Rd 27520
15	Todd Mitchell	917 Mulberry Rd 27520
16	Joanna Lamy	733 Lightfoot Drive, Clayton NC 27520
17		
18		
19		
20		

ORDINANCE TO AMEND THE ZONING MAP OF THE TOWN OF CLAYTON, NORTH CAROLINA IN ACCORDANCE WITH THE UNIFIED DEVELOPMNENT ORDINANCE (UDO)
2025-23-CZM HEAVNER PROPERTY CONDITIONAL REZONING

WHEREAS a petition has been filed with the Town Council of the Town of Clayton requesting an amendment to the Zoning Ordinance and Zoning Map of the Town of Clayton by rezoning property from the Residential Large Lot (RLL) and Corridor Commercial (CRM) zoning districts to the Conditional Commercial (CZC) zoning district. The subject properties are approximately 74.08 acres and are located on the southerly side of Clayton Blvd., south of Gateway Dr. and Yates Dr., east of Town Centre Blvd. and Scholar Dr., are identified as NC Pins 165909-05-8421 (Johnston County Tag 05G02002C) and 165909-15-8400 (Johnston County Tag 05G02002D); and

WHEREAS said properties are owned by Heavner Properties 1997 Limited Partnership; and

WHEREAS the Planning Board of the Town of Clayton has reviewed the proposed rezoning request at their July 28, 2025 meeting and made a recommendation thereupon; and

WHEREAS notice of a Public Hearing to consider the proposed change was published in accordance with law in The Johnstonian, a local newspaper, as required by Unified Development Ordinance Section 2.4.8(D) and North Carolina General Statutes §160D-602; and

WHEREAS a notice of a public hearing to consider the proposed zoning change was mailed to the owner of the parcel(s) of land involved, as shown on the Johnston County Tax Listing, and to the owners of all parcels of land abutting that (those) parcels(s) of land and within 300 feet of the subject parcel(s) of land, as shown on the Johnston County Tax Listings, by depositing a copy of the same in the United States Mail, first class postage paid, as required by Unified Development Ordinance Section 2.4.8(E) and by North Carolina General Statutes §160D-602; and

WHEREAS notice of a public hearing to consider the proposed zoning change was posted on the property as required by Unified Development Ordinance Section 2.4.8(F) of the and by North Carolina General Statues §160D-602 of the; and

WHEREAS the said public hearing was conducted at the Town Council meeting held at 6:00 p.m. on August 18, 2025, wherein a reasonable opportunity was given to all those in attendance to speak either in favor or against the said change to make relevant comments; and

THEREFORE, after duty considering the matter, THE TOWN COUNCIL OF THE TOWN OF CLAYTON DOES HEREBY ORDAIN:

SECTION 1. The Official Zoning Map of the Town of Clayton is hereby amended to designate the following described property as part of the Conditional Commercial (CZC) district:

General Description:

Outside of Town limits located on the southerly side of Clayton Boulevard east of the intersection of Financial Drive, west of the intersection of Fernwood Drive, and south of the intersection of Gateway Drive, addressed as 12649 Clayton Boulevard and an unassigned addressed, and identified as NC Parcel PIN #s: 165909-05-8421 and 165909-15-8400 (Johnston County Tax IDs 05G02002C and 05G02002D).

SECTION 2. That if any section, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of Ordinance.

SECTION 3. The applicant is requesting to require these conditions of approval:

Conditions of Approval (2025-23-CZM Heavner Property Conditional Rezoning)

1. Following Town Council approval, an electronic copy of the Concept Plan, Exhibit A (dated August 18, 2025), including the Conditions of Approval shall be submitted to the Planning Department.

2. The Project shall meet all applicable adopted Town of Clayton Unified Development Ordinance (UDO) requirements, Town of Clayton Manual of Specifications, Standards, and Design (MSSD), and the North Carolina Fire Code and NFPA Fire standards, as amended, except where specifically modified by the approved Concept Plan and Conditions of Approval.

3. The Project shall be constructed in substantial conformance with the Concept Plan as approved by the Clayton Town Council and the Town's Engineering Department. Any proposed modifications to the Concept Plan shall be reviewed in accordance with the standards outlined in the UDO.

4. The associated Concept Plan and Conditions of Approval for this project shall allow for any changes in Town Development regulations, either through text or the official Zoning Map, that are considered as upzoning, downzoning, or establishment of any nonconformity.

5. The Project and associated development applications shall adhere to Town adopted policies and ordinances that are in effect at the time of their submittal and acceptance for review.

6. To the extent of any conflict between the Concept Plan and these Conditions of Approval, these Conditions shall control.

7. In the event the development contemplated in a Conditional Rezoning application is not substantially commenced within three (3) years from the date of the approval, the Town Council may initiate a rezoning application to return the land to its prior or to some other appropriate zoning district designation.

8. The property owner shall submit, and the Town Council shall approve a request for a voluntary annexation petition for all parcels of land subject to 2025-23-CZM prior to approving any Construction Drawing for any phase in 2025-23-CZM.

9. The Subdivision of the project property shall occur via the Alternative Sequence process included in the Construction Drawing process section of the UDO and the recording of the subdivision shall be allowed to occur prior to installation of UDO required improvements or improvements required with in other conditions in this Ordinance.

10. A Temporary Certificate of Occupancy may be issued, at the discretion of the Inspections Director, prior to the completion of As-Built Plans being finalized with substantial compliance with approved Site Plan and Performance Guarantee for any outstanding Site Plan requirements or infrastructure improvements.

11. A Performance Guarantee shall be provided for public infrastructure improvements, (including but not limited to water and sewer system extensions, off site roadway improvements, erosion control measures, and storm water control systems). Performance Guarantee for offsite NCDOT improvements, including traffic control signals, shall only be provided to NCDOT, with a copy of the Performance Guarantee provided to the Town of Clayton.

12. Principal uses shall comply with the uses listed in the CRM or CZC columns of the Listing of Common Principal Uses in UDO Table 4.2.5, as amended, with the exception of the following principal uses which shall be prohibited:

<u>Agricultural Use Classification</u>

- Animal Husbandry
- Equestrian Facility
- Farm Equipment Sales and Service
- Horticulture

<u>Commercial Use Classification</u>

- Animal Boarding Indoor & Outdoor
- Bed & Breakfast

- Bulky Item Sales*, as defined by the Town of Clayton UDO, shall not be permitted within the development, except as a secondary use within a Unified Development.*
- Flea Market
- Pawn Shop
- Tobacco, CBD, and Vapor Shop
- Parking Vehicle Towing or Storage

Industrial Use Classification

- Contractor Services Office/ Yard
- Electrical, HVAC, or Plumbing Fabrication
- Freight Terminal
- Major Utility
- Warehouse, Distribution, or Storage

Institutional Use Classification

- Arboretum or Formal Garden
- Athletic Field or Court
- Auditorium, Coliseum, Convention Center
- Bus Station
- College or University
- Community Center
- Community Garden
- Cemetery or Mausoleum
- Fire/ EMS/ Police Station
- Fraternal Club or Lodge
- Golf Course (public or private)
- Governmental Training Facility
- Outdoor Recreation, Public
- Park and Ride Facility
- Park or Playground (public or private)
- Rail Related
- Religious Institution
- Residential Treatment Facility
- School, Elementary or Middle
- School, High
- School, Vocational

Residential Use Classification

- Triplex or Quadplex Dwelling

13. Secondary uses shall comply with the uses listed in the CRM or CZC columns of the Listing of Common Secondary Uses in UDO Table 4.5.4, as amended, with the exception of the following Secondary uses which shall be prohibited:

    - Amateur Ham Radio
    - Family Health Care Structure
    - Helistop

14. Animal Boarding, Indoor (4.3.7), Grooming, Animal (4.3.61), and Veterinary Services, Small Animal (4.3.144) shall not have any exterior boarding. Soundproofing shall be provided per accepted industry standards.

15. Corridor Commercial District (CRM) Dimensional Standards (UDO 3.2.1.C), as modified per UDO Section 3.3.2.B

Dimensional Standards for Overall Site and Nonresidential areas:

Max. Residential Density - units [a]	12.0 d/u per acre - 475 unit maximum	Min. Street Setback (ft)	5
Min. Lot Area (sf)	8,000	Min. Side Setback (ft)	5
Min. Lot Width (ft)	0	Min. Internal Side Setback (ft)	0
Max. Lot Coverage (% of lot area) [b]	75%	Min. Rear Setback (ft)	0
Min. Open Space Set-Aside (% of lot area) [c]	5	Min. Spacing Between Buildings (ft)[d]	Per zoning conditions or NC Building Code, whichever is greater
Max. Building Height (ft)	60	Min. Perimeter Setback for Multi-Building and Unified Developments (ft)	5 ft
Max. Building Height (ft) for Hotels and Office Buildings	75		

a. Max. Residential Density
    i. The maximum residential density shall be applied across the entire project area and not on a per lot basis. There shall be no more than 475 dwelling units. An increase to the number of dwelling units shall require a major modification to the Conditional Zoning as outlined in the UDO.
b. Max. Lot Coverage

i. The maximum lot coverage shall be applied across the entire project area and not on a per lot basis.

c. Min. Open Space Set-Aside.
   i. The minimum open space set aside shall apply to the entire project area and not on a per lot basis, except for multifamily which shall meet its own Open Space and not be used towards the nonresidential Open Space. SCM #1 as shown on the Concept Plan may be used toward the nonresidential Open Space, subject to the requirements of Section 6.7.1.E.1.b.ii of the Unified Development Ordinance.

d. Building to building setbacks shall be in accordance with dimensional requirements outlined in this Conditional Zoning, or in accordance with NC Building Code requirements, whichever is greater.

Dimensional Standards for Multifamily Residential areas:

Min. Lot Area (sf)	20,000
Max. Building Height (ft)	60
Min. Street Setback (ft)	5
Min. Side Setback (ft)	5
Min. Rear Setback (ft)	5
Min. Spacing Between Buildings (ft)	Per zoning conditions or NC Building Code, whichever is greater
Min. Perimeter Setback	5 ft

16. Outdoor Display/ Sales Outdoor sales shall be allowed in locations as identified and approved on the site plan. This shall include temporary outdoor sales. Location of outdoor display/sales shall not encroach into vehicular use areas, minimum setback yards, or required buffers.

17. The duration and location of common temporary uses is modified as follows:
    a. Outdoor Seasonal Sales: Outdoor Seasonal Sales allowed at any time during the calendar year when an area is identified and approved for outdoor seasonal sales on a Site Plan for a maximum of 60 days per occurrence, a maximum of five occurrences per year, with a total maximum of 270 days per year.
    b. Portable Storage Containers: Portable Storage Containers may be permitted at time of Site Plan when an area is identified for Portable Storage containers on a Site Plan. No portable storage containers can be used in perpetuity and will be subject to time limited duration, subject to approval by the Planning Director. Portable storage containers must be located at the rear of a building and shall be screened from the line of sight from public and private roads.
    c. Other Special Events: Each retailer and/or tenant, individual businesses located on an outparcel, and any other business located within the unified shopping center may have a *Grand Opening Sale* including banners, signs and other allowable signs per the UDO are allowed up to 45 consecutive days per calendar year.

18. *Perimeter Buffers* shall be in compliance with perimeter buffers shown on the attached Concept Plan and as described below. The streetscape buffer shall be in accordance with UDO Section 6.16.16 *Streetscape Buffers*.

    a. East, adjacent to existing residential (PIDs, 05G02002I, 05G02002L, 05G02198O, 05G02002G, 05G02002K, 05G02002H, and 05G02193Y): 40' Type D
       A retaining wall may be introduced into the buffer to preserve existing vegetation, with final design to be determined at site plan.

    b. South, adjacent to existing residential (PID 05G02198W): 40' minimum undisturbed buffer.
    c. East, adjacent to vacant site (PID 05E99012J): 20' Type A
       i. This buffer may be eliminated if the vacant site is rezoned to a commercial district or developed as part of Unified Development with the Heavner Property.
    d. West, south of Scholar Dr (PID 05G02001A): 10' Type A
    e. West, north of Scholar Dr (PIDs 05G02001M, 05G02001L): 5' Type A
       i. This buffer may be eliminated if the parcels indicated are developed as part of a Unified Development with the Heavner Property.

19. Grading may occur within the required buffers and replanted to the standards in the UDO by buffer type. Where grading does not occur within the buffer, existing vegetation may be counted towards required plantings and supplemented to meet the requirements of the UDO. Existing vegetation to count towards required plantings shall be identified on the Site Plan and is subject to a report prepared by a certified arborist noting the health and size of the existing vegetation to be used for credit.

20. The perimeter buffers shown on the Concept Plan for the overall development shall meet all planting quantity and size requirements for the Type of buffer shown with the following exception:
    a. The 40' Type D buffer where adjacent to existing residential shall increase the percentage of understory trees and shrubs to 100% evergreen.
    b. No buffer is required where it is prohibited on utility easements by the easement owner.
    c. Additional buffers, walls, and/or fences for individual uses internal to the site shall not be required.

21. Mass Grading restrictions or limitations shall not apply to this development. The buffers shall be in compliance with the perimeter buffers shown on the attached Concept Plan and not doubled or increased from the width and Type shown on the concept plan as a result of mass grading.

22. Denuded areas adjacent to riparian buffers and/or wetlands located on the subject property shall have double silt fencing installed during construction.

23. Where off-street parking lots of 100 or more spaces are shown on site plans, they shall include at least one landscaping strip for every six rows of parking spaces overall with a maximum spacing of 10 rows between landscaping strips, with location to be determined at site plan.

24. 90 degree parking spaces, with the exception of ADA compliant spaces, shall be a minimum of 9 feet in width and 18 feet in depth.
    - Where the parking space includes a wheel stop, the length of the space shall be increased by 1.5 feet.
    a. Where a parking space abuts a wall or fence, the minimum distance between the back of curb and the wall or fence shall be at least two (2) feet for the entire length of the wall or fence.

25. Multi-family buildings shall follow the design standards in UDO Section 6.2.4 *Multi-Family Design Standards*: Building Facades with the following modifications:

    a. A covered balcony shall also be acceptable as an allowed architectural element as one of the three required features outlined in the UDO.

26. Multi-Family buildings shall follow the design standards in UDO Section 6.2.4 Multi Family Design Standards: Building Façade Variation with the following modifications:

    a. One of more of the principal buildings has a footprint that differs in square footage by 20% or more than the average principal buildings footprints of the other principal buildings.
    b. The use of Fiber Cement material in its various styles may be used to meet the primary exterior requirements as a different material. Examples include lap siding, vs. panel siding, vs shingles. These materials shall be counted as different materials.
    c. A primary material shall be understood to mean the highest percentage of material on the wall.
    d. One or more of the principal buildings is configured so that 25% of the windows incorporate a canopy, awning, overhang, or other covering.

27. Non-residential buildings shall follow the design standards in UDO Section 6.2.5 *Non-Residential Design Standards* with the following modifications:

    a. All commercial buildings shall have a minimum of one distinguished Primary Building Wall.
    b. Multi-tenant buildings shall not be required to have a primary entrance for each tenant.
    c. Customer Entrances shall be allowed to have a canopy, awning, portico, archway, arcade, or other covering that extends outwards from the building wall by at least 4 feet.

d. Non-Residential Building Articulation shall allow a recess or projections of 1.5 feet for multi-tenant buildings and 2 feet for single-use buildings. Entry canopies or projections shall be included in the calculation of modulation.

28. Prefabricated metals and corrugated sheet metal may be used as an allowed building material with an additional articulation element.

29. The project shall be allowed to have two Ground Signs for the project on the US 70 frontage. There shall not be a Ground Sign on the Financial Drive side of the project.

30. Ground signs for the out parcels shall be prohibited.

31. Single-tenant Commercial buildings and spaces exceeding 24,000 square feet may have Wall Signs that shall not exceed a total allowance of 500 square feet, at a rate of 1.5 sf per linear foot of building façade. When applied to a building, there shall be a maximum of four signs per façade.

32. The project shall complete all off-site improvements in accordance with the Traffic Impact Assessment (TIA) reviewed by the Town of Clayton and the North Carolina Department of Transportation (NCDOT), subject to the issuance of applicable permits by NCDOT and the Town of Clayton, as appropriate. The following improvements shall be completed prior to the issuance of the first Certificate of Occupancy:

- Clayton Blvd (US 70)
  - Construct an additional eastbound lane on US 70 from Financial Drive to Site Access C, striped as an exclusive right-turn lane at each site access
- Clayton Blvd (US 70) at Site Access A
  - Construct a Right in/ Right out driveway with one ingress lane and one egress lane
  - Construct 150' internal protected stem
- Clayton Blvd (US 70) at Gateway Drive/Site Access B:
  - Reconfigure intersection to a thru-cut configuration, permitting all intersection movements except of the northbound and southbound through movements.
  - Install traffic signal
  - Install an additional 300' westbound left-turn lane on Clayton Blvd
  - Extend storage of existing westbound left-turn lane to 300' on Clayton Blvd
  - Construct two ingress and four egress lanes on Site Access B
  - Construct a 200' Internal Protected Stem on Site Access B
  - Provide separate 50' left- and right-turn lanes on the southbound approach of Gateway Drive
- Clayton Blvd (US 70) at Medical Park Place/Site Access C
  - Extend storage of existing Clayton Blvd westbound left-turn lane to 450'

- Construct Site Access C as a left-in/right-in/right-out access with one ingress lane and two egress lanes
- Construct 200' Internal Protected Stem
- Install a traffic signal for the US 70 Eastbound/Site Access C intersection
- Build Site Access C driveway on Clayton Blvd with the following lanes:
  - One inbound lane
  - Two outbound right turn lanes
  - Signalize for left turns into the Site Access C

33. A two lane roadway, with naming to be determined at time of site plan review, shall be extended east from the Financial Drive and Town Center Boulevard intersection to the western property boundary
per Clayton standard 2C in the Comprehensive Transportation Plan Cross Section Standards.

34. Development shall restripe the southbound approach of Financial Drive to provide an exclusive left-turn lane at Town Center Boulevard Extension with a minimum of 50' of full width storage and appropriate tapers. A future traffic analysis shall be performed prior to approval of the site plan to confirm storage length required for the southbound left-turn lane at this intersection.

35. A connection to the undeveloped parcel at the northwest corner of site (PIN 165909-06-4682) shall be provided from Site Access Driveway A as outlined below:
    a. If the adjacent site is developed prior to the development of the Heavner Property and a connection with a cross access easement is provided within 10 feet of the property line the Developer shall make the connection to the existing driveway stub; or
    b. If adjacent site remains undeveloped at the time of development of the Heavner Property, the Developer shall provide a driveway stub to the adjacent property and easement allowing the future connection of the cross access driveway.

36. The trip generation used in the TIA is based on the land use assumptions and associated trip generation table included with the approved TIA. Modifications to the land use mix, including changes in the number of dwelling units or gross floor area, may be permitted as a Minor Modification to the concept plan, provided that documentation is submitted by a licensed Traffic Engineer demonstrating that the overall trip generation does not exceed the total approved in the TIA. The TIA approval shall expire in accordance with the Concept Plan, Site Plan, subdivision plat, or other approval it is associated with per the UDO.
37.

SECTION 4. That the Town Council hereby adopts the following Statement of Consistency and Reasonableness for the proposed rezoning:

- The properties are designated as High Density Residential with a Community Center Overlay.
- The request is consistent with the following Goals & Policies of the 2045 Growth Plan:
    - Goal LU1: Preserve Clayton's Character while allowing for growth an development in appropriate areas.
        - Policy LU 1.2: Encourage developments which incorporate high quality design and enhance the quality of life for existing and future residents of the Town.
        - Policy LU 1.3: Encourage non-residential land uses in areas consistent with the Future Land Use Map.
    - Goal LU 3: Encourage a range of housing types and lot sizes that will meet the needs of various income levels, family sizes, and ages.
        - Strategy LU 3.1.3: Within larger developments, encourage higher density housing types to be located in those areas with closest proximity to services, amenities, and infrastructure.

This action is reasonable and in the public interest, in that:

- The Comprehensive Growth Plan encourages a mixture of uses in this area with high density residential due to proximity to major transportation corridors and existing commercial areas.
- The request is compatible with existing zoning and land uses in the area.

SECTION 5. That this ordinance shall become effective immediately upon its adoption.

Duly adopted this 18th day of August 2025, while in regular Session.

_____

Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM:

_____
Jim Cauley
Town Attorney

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	PUBLIC HEARINGS

Item Title

2025-56-Street Closure, Shotwell Apartments (Mechanical Drive)

Presenter(s)

Audrey Duchesne, Senior Planner

Suggested Action

Adoption of Ordinance - Ordinance #2025-08-05

Strategic Priorities Alignment

						
☐	☐	☐	☐	☐	☐	☒
Vibrant Downtown	Desirable Amenities and Spaces	Sustainable Infrastructure	Mobility, Transportation, and Transit	Diversified Economic Development	Community Outreach and Engagement	Public Safety

Public Hearing: Yes

Applicable General Statute Number: §160A-299

If Approved, Will Document Require Recordation? Yes

Does This Item Require a Communication Plan?

☒ Public Hearing (Required by GS)	☐ Public Hearing (Not Required by GS)
☒ Newspaper Notice (Required by GS)	☐ Newspaper Notice (Not Required by GS)
☐ Public Forum/Input Session	☐ Press Release
☐ E-News Distribution	☐ Website
☐ Social Media	☐ Survey

☒ Special Mailing ☐ None Required

Other/Special Instructions: Letters sent by deadline of August 8, 2025

Signs posted by deadline of August 8, 2025

Newspaper ads published: July 23, 2025, July 30, 2025, August 6, 2025, and August 13, 2025

Summary

The applicant is requesting street closure of 4,312-square-foot (0.10-acre) portion of the cul-de-sac on Mechanical Drive, which is part of the Town of Clayton public right-of-way.

Background/History

The applicant was previously subject to a Conditional Residential Rezoning (Case #2024-05-02). As part of the approved conditions of the rezoning, the developer was required to complete the necessary process to remove a portion of the cul-de-sac so that the site could be developed in accordance with the associated Concept Plan.
The application was heard by the Planning Board at their regularly scheduled meeting on July 28, 2025. The Board voted unanimously to recommend approval of the application to the Town Council.

Recommendation

Staff recommends approval

Funding Source

N/A

Cost

N/A

Corresponding Documentation

00_Staff Report_Street Closure - Shotwell Apartments_07112025 (2)
01_Staff Report Maps_Street Closure - Shotwell Apartments_08182025
02_Application_Street Closure - Shotwell Apartments_08182025
03_Owner's Consent Form_08182025
04_Applicant_Street Closure Review Criteria_07112025
05_Neighborhood Meeting Packet_ Street Closure - Shotwell Apartments_08182025
06_Surrounding Property Notice_ Street Closure_Shotwell Apartments_08182025
07_Street Closure Plat_Street Closure - Shotwell Apartments_08182025
08_Potential No Outlet Sign_Sign Addition_08182025
09_Newspaper Ad Affidavit_08182025
10_Ordinance_2025-56-Street Closure_08182025

Meeting Timeline

July 28, 2025: Planning Board
August 18, 2025: Town Council Public Hearing

Submitted By: Audrey Duchesne, Town Council

Reviewed By:

Haley Downey, Assistant Planning Director	Approved - Aug 07 2025
Conrad Olmedo, Planning Director	Approved - Aug 07 2025
Courtney Tanner, Deputy Town Manager	Approved - Aug 13 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720
planning@townofclaytonnc.org

Planning Board Public Meeting: July 28, 2025
Town Council Public Hearing: August 18, 2025

STAFF REPORT	
Project Number:	2025-56–Street Closure
Project Name:	Shotwell Apartments (Mechanical Drive) Street Closure
Property Pin #:	165911-55-5881 and 165911-55-7668
Location:	Within Town Limit consisting of Town Right-of-Way located of the terminus of Mechanical Drive, north of the intersection of Cameron Way, southerly of the adjacent properties with no assigned addresses and identified as Johnston County Tax IDs 05026073S and 05026073E.
Applicant:	Reuter Walton Development c/o Paul Keenan
Property Owner:	CORPORATE DEVELOPERS LLC
Planning Board Public Noticing Dates:	Signs Posted by deadline of August 8, 2025 Surrounding Property Notice Mailed by deadline of August 8, 2025 Newspaper Ad published July 23, 2025, July 30, 2025, August 6, 2025, August 13, 2025
Request:	Pursuant to NCGS §160A-299, this is a request to permanently close a 0.10-acre portion of the cul-de-sac on Mechanical Drive. The area proposed for closure is a public right-of-way currently maintained by the Town of Clayton.

PROJECT OVERVIEW

The applicant is requesting the permanent closure of a 0.10-acre portion of the cul-de-sac on Mechanical Drive. The area proposed for closure will be incorporated into the adjacent property and used to accommodate driveway depth and parking for a 90-unit multi-family development located near the future building's main entrance. This request is being processed in accordance with North Carolina General Statute §160A-299. The Site Plan and Construction Drawings (Application No. 2024-122-SP_CD) have been submitted concurrently, and the Technical Review Committee is finalizing approvals contingent upon the approval of this street closure request. The request was reviewed by the Public Works Department as part of the Technical Review Committee (TRC) process.

Background

Shotwell Apartments underwent a Type 3 Conditional Rezoning (2024-24-CZM) in 2024. As a part of that approval, dated August 10, 2024, conditions were placed upon the rezoning which included the requirement of this ROW abandonment. Specifically, Condition 37 states that the developer shall cover the costs associated with road improvements on Mechanical Drive, including the following:

a. Removal of the cul-de-sac
b. Maintenance of existing driveways; and
c. Permitting and construction of new driveways into the proposed development.

ADJACENT ZONING, LAND USES, AND FUTURE LAND USES

Direction	Zoning	Existing Land Use(s)	Future Land Use
North	Residential Low Density (RLD)	Vacant – Open Space	Downtown Support
South	Corridor Commercial (CRM)	Fitness Center	High Density Residential
East	Residential Low Density (RLD)	Townhouses	Community Center, Low Density Residential
West	Conditional Mixed-Use (CZM)	Vacant	Employment Center & High Density Residential

REVIEW CRITERIA

Per UDO Section 2.3.24.E, in determining whether to adopt or deny a proposed Street Closure application, the Town Council may weigh the relevance of and consider the following:

1. Closing of the street is in the best interest of the public; and
2. A landowner in the vicinity of the street would not be deprived of reasonable ingress or egress to their land.

PLANNING BOARD CONSIDERATIONS

The Planning Board reviewed this item for recommendation during a public meeting held on July 28, 2025. The Board voted unanimously to recommend **approval** as outlined in the agenda packet.

During its review, the Planning Board raised concerns regarding the security of the proposed cul-de-sac configuration. As outlined in the project overview, the combined application for the Shotwell Apartments was reviewed by the Technical Review Committee (TRC) and evaluated by all relevant Town departments. In response to the Planning Board's comments, discussions were held with the applicant regarding the potential installation of a "No Outlet" sign. A potential location for this sign has been included as Attachment #8 in this package. The request will require further evaluation by the Traffic and Safety Committee but reflects the Board's interest in ensuring

appropriate safety measures are considered.

TOWN COUNCIL CONSIDERATIONS

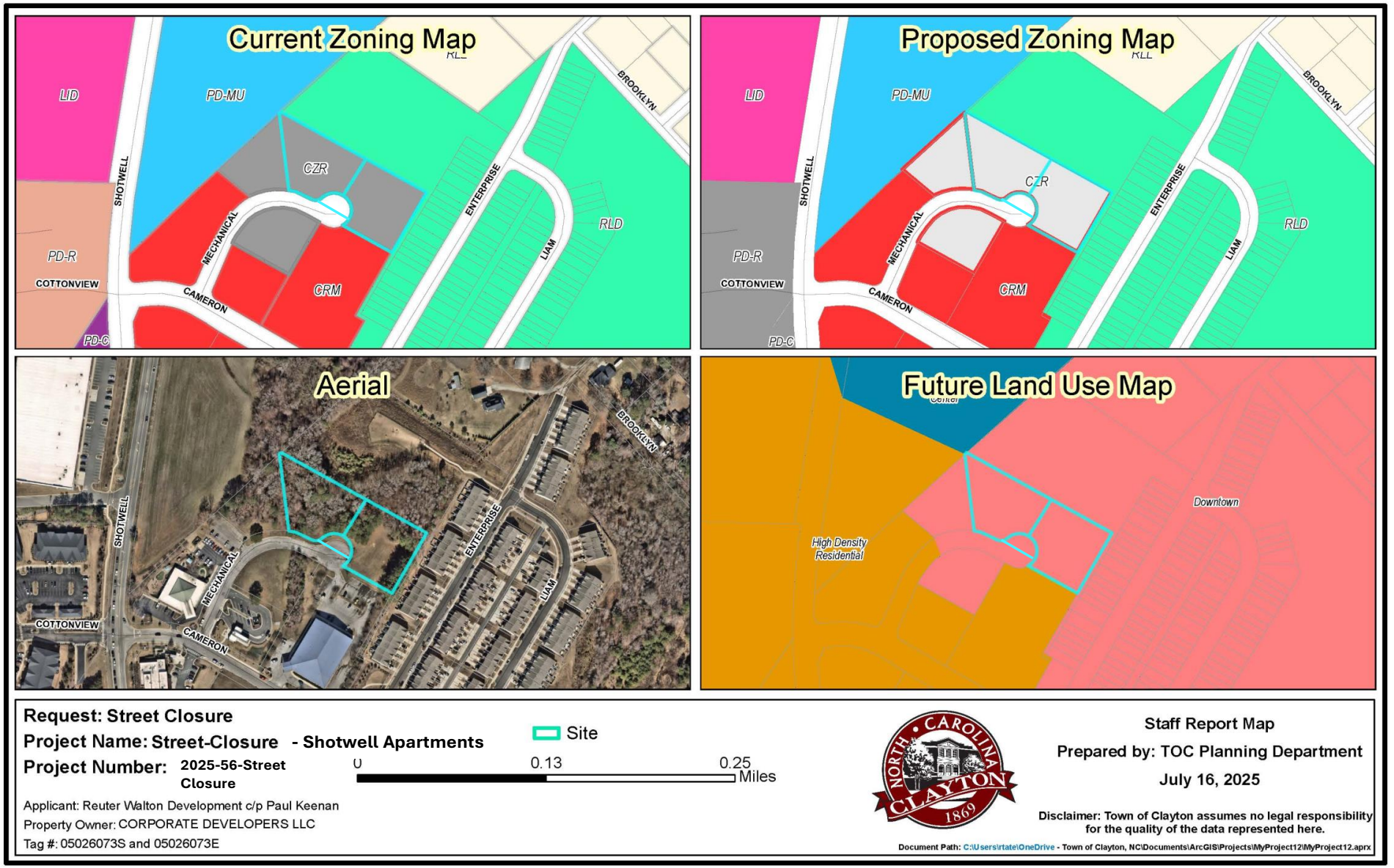
Following the July 28, 2025 Planning Board Meeting, this application is scheduled for a public hearing on August 18, 2025.

STAFF RECOMMENDATION

The Technical Review committee has thoroughly reviewed the proposed street closure. ***Planning staff is recommending approval.***

ATTACHMENTS:

1. Staff Report Maps
2. Application
3. Owner's Consent Form
4. Applicant Review Criteria
5. Neighborhood Meeting Materials
6. Surrounding Property Owner Notice
7. Street Closure Abandonment Plat
8. Potential Sign Location
9. Newspaper Ad Affidavit
10. Ordinance


Current Zoning Map
LID
PD-MU
CZR
PD-R
COTTONVIEW
CRM
RLD
SHOTWELL
MECHANICAL
CAMERON
ENTERPRISE
LIAM
BROOKLYN
PD-C
Proposed Zoning Map
Aerial
Future Land Use Map
Downtown
High Density Residential
Request: Street Closure
Project Name: Street-Closure - Shotwell Apartments
Project Number: 2025-56-Street Closure
Site
0
0.13
0.25
Miles
Applicant: Reuter Walton Development c/p Paul Keenan
Property Owner: CORPORATE DEVELOPERS LLC
Tag #: 05026073S and 05026073E
NORTH CAROLINA CLAYTON 1869
Staff Report Map
Prepared by: TOC Planning Department
July 16, 2025
Disclaimer: Town of Clayton assumes no legal responsibility for the quality of the data represented here.
Document Path: C:\Users\rtate\OneDrive - Town of Clayton, NC\Documents\ArcGIS\Projects\MyProject12\MyProject12.aprx

TOWN OF CLAYTON
Planning Department
111 E. Second St.
P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

STREET CLOSURE COVERSHEET

Name of Project: Shotwell Apartments **Date:** 6/6/2025

Applicant Name: Reuter Walton Development

The following checklist to be completed by applicant. All materials must be submitted in PDF format.

☑ Pre-Application Meeting on: 6/5/2025
Note: Pre-application meeting must be held no more than 6-months prior to submittal.

☑ Neighborhood Meeting on: 6/4/2025
Note: Neighborhood meeting must be held no more than 6-months prior to submittal.

☑ Review Fee
☑ Completed Application
☑ Owner's Consent Form
☑ List of property owners within 300 feet of subject parcel(s)
☑ Neighborhood Meeting Materials
☑ Plat depicting area to be abandoned

Reviewed by:_____

May 2025

TOWN OF CLAYTON
Planning Department
111 E. Second St.
P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

Street Closure Application

www.ClaytonNC.org/Fees
Applicable Fees: Street Closure Fee

PROJECT & SITE INFORMATION

Name of Project: Shotwell Apartments

Acreage of Property: 3.01 AC **Current Zoning District:** CZ-R (Conditional Residential)

County Tag #: 05026073T,05026073S, 05026073E,05026073O **NC Pin #:** 165911-55-3881, 5881,7668,4650

Address/Location: 1311 Mechanical Drive, Clayton, NC 27520

Are you submitting the application under the ordinances and policies in effect at the time of the application for review by the Town of Clayton? ☑ Yes ☐ No

If you answered "No" to the question above, please specify the ordinance(s) and/or policy(ies), including version(s), under which the application is being submitted: _____

Note: Supporting documentation must be submitted with the application.

APPLICANT INFORMATION

Applicant: Reuter Walton Development

Mailing Address: 4450 Excelsior Boulevard, Suite 400, St.Louis Park, MN 55416

Phone Number: (612)-282-1977 **Fax:** _____

Contact Person: Paul Keenan

Email Address: pkeenan@reuterwalton.com

OFFICE USE ONLY

Date Received: _____ Amount Paid: _____ File Number: _____

May 2025

PROPERTY OWNER INFORMATION

Name: Corporate Developers, L.L.C.

Mailing Address: 1205 Great Oaks Dr, Wilmington, NC 28405

Phone Number: 919-630-3612 **Fax:** _____

Email Address: ray.hales@thehalesgroup.net

EXPLANATION OF PROJECT

Please provide detailed information concerning all requests. Attach additional sheets if necessary.

PROJECT SCOPE INCLUDES DEVELOPMENT OF A 90-UNIT AFFORDABLE HOUSING APARTMENT DEVELOPMENT ON THE VACANT PORTION OF LOTS WITH PIN 05026073E, 05026073S, 05026073T, 050260730. THE PARCELS ARE IN THE CONDITIONAL RESIDENTIAL ZONING DISTRICT (ORD #2024-05-02). THE PARCELS WILL BE RE-PLATTED PRIOR TO CONSTRUCTION TO FACILITATE THE NEW DEVELOPMENT ON A SINGLE PARCEL.

STORMWATER RUNOFF FROM NEW IMPERVIOUS AREAS WILL BE CAPTURED AND CONVEYED TO THREE (3) UNDERGROUND DETENTION SYSTEMS LOCATED ON PARCELS 05026073S, 05026073T, AND 050260730. STORMWATER QUANTITY AND QUALITY TREATMENT SHALL BE PROVIDED USING CONTECH STORM FILTER SYSTEMS AND WILL BE DESIGNED ACCORDING TO TOWN OF CLAYTON AND NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY STANDARDS.

UTILITY INFRASTRUCTURE INCLUDES DOMESTIC, FIRE, AND IRRIGATION WATER SERVICE, SANITARY SEWER SERVICE, ELECTRIC, AND TELECOMMUNICATION LINES. WATER AND SEWER SERVICES WILL BE CONNECTED TO EXISTING MAIN LINES IN MECHANICAL DRIVE.

THIS SPECIFIC REQUEST IS RELATED TO REMOVING A PORTION OF RIGHT-OF-WAY FROM MECHANICAL DRIVE.

REVIEW CRITERIA

Please provide a response to each of the Review Criteria listed below. Please attach additional sheets if necessary. A Street Closure shall be approved upon the Review Criteria by the Town Council:

1. Closing of the street is in the best interest of the public, enhance public safety, or will do no harm.
   See attached.

2. A landowner in the vicinity of the street would not be deprived of reasonable ingress or egress to their land.
   See attached.

3. The street closure will not adversely affect land values or cause excessive economic impact to landowners or the Town.
   See attached.

4. The street closure will result in an overall public good that generally cannot be measured in monetary terms but is found to outweigh known or perceived economic interests and costs.
See attached.

APPLICANT AFFIDAVIT

I understand that by signing this application I am legally bound to the representation, terms, and conditions herein. By signing below, I certify that I was technically able to read and had a reasonable opportunity to read this disclosure. I further acknowledge that I am authorized to submit this application, and any subsequent revisions thereto, and confirm having obtained permission from the property owner/occupant for the application and the Town's entry onto the property, if applicable. I further authorize Town of Clayton representatives to enter the site for purpose of conducting inspections or evaluations to determine compliance with applicable laws, policies, and manuals. I hereby certify that all of the information provided in this application and any attached documents is true, accurate, and complete to the best of my knowledge. I understand that any false information may result in rejection of the application or revocation of the permit or plan. I understand this submittal with its related materials and all attachments become official records of the Town of Clayton, North Carolina, and will not be returned. I understand this application and any communication, approval, or resulting permits issued as a result of this application are subject to disclosure pursuant to the North Carolina Public Records Act. I also acknowledge that, pursuant to NCGS § 143-755(b1), failure to respond to Town comments or holding the permit application on hold for six consecutive months or more will result in the cessation of review and forfeiture of all application fees, requiring a new application under current regulations. I shall not hold the Town of Clayton, its officers, employees and agents liable for any claims, losses, liabilities, expenses, charges or damages arising from or relating to incomplete, inaccurate, or false applications, or any additional supplemental applications, with respect of any cause arising out of, resulting from, or in connection with the application or permit.

Paul Keenan	Paul Ke	6-6-25
Print Name	*Signature of Applicant*	*Date*

TOWN OF CLAYTON
Community Development
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002

OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed. This form does not need to be notarized for trade permits however all other application types will require notarization.

Project Name: Shotwell Apartments **Address or PIN #:** 165911-55-3881, -5881, -7668, -4650

AGENT/APPLICANT INFORMATION:

Paul Keenan - Reuter Walton Development
(Name - type, print clearly)

4450 Excelsior Boulevard, Suite 400
(Address)

St. Louis Park, MN, 55416
(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (***list applicable requests***):

ROW Abandonment Application

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application. If the property owner is a North Carolina LLC, the individual signing this form must be listed as a company official on the North Carolina Secretary of State's website. Additional verification may be required.

OWNER AUTHORIZATION:

Corporate Developers LLC
(Name - type, print clearly)

(Owner's Signature)

1205 Great Oaks Dr
(Address)

Wilmington, NC, 28405
(City, State, Zip)

STATE OF NC
COUNTY OF Johnston

*****Notarization is not required for trade permits.*****

Sworn and subscribed before me Catherine J. Hopkins, a Notary Public for the above State and County, this the 21 day of July, 2025.

SEAL

CATHERINE J. HOPKINS NOTARY PUBLIC JOHNSTON COUNTY, NC

Catherine J Hopkins
Notary Public

My Commission Expires: 9/29/2025

June 2025

Public Street Review Criteria

1. A limited area at the end of the cul-de-sac will be removed. This will have no impact on public safety as the proposed development driveway will provide adequate turn around area for emergency vehicles.
2. There will be no modifications to existing points of access on Mechanical Drive. The existing access on the cul-de-sac will be maintained.
3. No negative economic impacts or land value impacts are anticipated. The right-of-way modification will allow for the full development of the properties on Mechanical Drive and provide additional residences in close vicinity of the adjacent businesses. The modification will allow for an additional housing type for citizens in the Town of Clayton.
4. As noted above, this right-of-way closure does not restrict access to any existing residences or businesses, does not impact public safety, and does provide an additional housing type for citizens of the Town. The closure was noted as necessary during the rezoning and site plan approval for the property which are determined to be in the best interest of the Town.

REUTERWALTON
4450 Excelsior Boulevard, Suite 400
St. Louis Park, MN 55416
612-823-3489

May 21st, 2025

Dear Clayton Area Property Owner:

The purpose of this letter is to notify you of an application filed with the Town of Clayton for a land use change or development proposal involving property adjacent to, or in close proximity to, property shown in your ownership by Johnston County tax records. Per Town of Clayton regulations, a Neighborhood Meeting will be held to provide information to area residents about the proposal. A representative of the applicant will be present to explain their application, answer questions, and solicit comments.

Meeting Date: **Wednesday, June 4th, 2025** Meeting Time: **6:00 PM**

Meeting Location: **Women's Club of Clayton, Clubhouse. 109 South Church Street, Clayton NC, 27520**

Type of Application: **Right-of-Way (ROW) abandonment**

Project/proposal property address: **1311 Mechanical Dr, Clayton, NC 27520**

Description of project/proposal: **New construction, 4-story, 90-unit workforce housing project**

Upcoming public meetings for this application: **Town Council, July 2025 (tentative)**

At a minimum, the following will be available for your inspection at the Neighborhood Meeting:
1. A copy of the project application.
2. A schedule of all upcoming public meetings for the application.
3. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
4. A map, drawing, or other depiction of the proposed land use change or development proposal.

A map is enclosed with this letter showing the location of the property that is subject to this application for land use change and/or development proposal.

If you have any questions prior to or after this meeting, you may contact us at ***612-750-0279***. You may also contact the Town of Clayton Planning Department at 919-553-5002.

Sincerely,

Jared Ackmann

Developer

Cc: Town of Clayton Planning Department

6/5/2025

Neighborhood Meeting – Cul-de-sac Abandonment
For: Shotwell Apartments
Held at Women's Club of Clayton
109 S. Church St. 27250

Re: Neighborhood Meeting -Shotwell Apartments - Clayton Workforce Housing
Right of Way Abandonment

Meeting was attended by the following neighbors

Constance Parker
Benjamin Rice
Blake Lee

Questions

1. Will fitness centers north entrance be blocked? -No
2. What size of trees will be planted along East Property? Landscape plan with tree species was reviewed
3. Discussion on the 6 foot high fence location along East and South Property
4. Request to preserve as many trees along east property- discussed.
5. Rent rates were discussed and definition of work force housing- discussed

The Proposed Development was described and is a 5 story - 90 unit Apartment Building with parking on site and below the building located at 1311 Mechanical Drive, Clayton, North Carolina, 27520

Unit Mix: 1 bedroom-32
2 bedroom-35
3 bedroom-23
90

Parking Stalls
Garage: 67
Lot 1-31
Lot 2-23
Lot 3-27
Street -4
Total: 152 stalls

Total Acreage:2.25 acres

Developed by Rueter Walton- A Minnesota based affordable housing Provider

The project was approved by City Council on 6h day of May,2024. It was rezoned from a B-3 to a CZR-Conditional Residential Zoning (ie: conditional in that the plan approved by city council is the plan submitted)

In the last 13 months construction documents have been prepared reviewed and approved by the Clayton Engineering Department. The Inspections Department has received the Building Plans May15th prepared by Architect, Mechanical, Electrical and Structural engineers and shall have comments back by July 16th.

This abandonment is pending City Council approval either July 21st or August 4th depending upon Council Agendas.

The current request of the city is to abandon the current turning radius at the end of Mechanical Drive. This still allows a fire truck to pull into the Shotwell apartment parking lot and turn around. The Abandonment also allows a passenger car or delivery vehicle to access the parking lot of the Clayton Fitness.

We do believe that it may eliminate semi-trailers from parking on Mechanical Drive overnight which could be a benefit to the community.

If you have any further questions about the project, please reach out.

Yours truly,



Link Wilson, AIA - NC Architect 16510
Managing Partner

Graphics presented are attached.

3D drawing.
Area Plan
Abandonment Plan
Landscape Plan
Site Plan

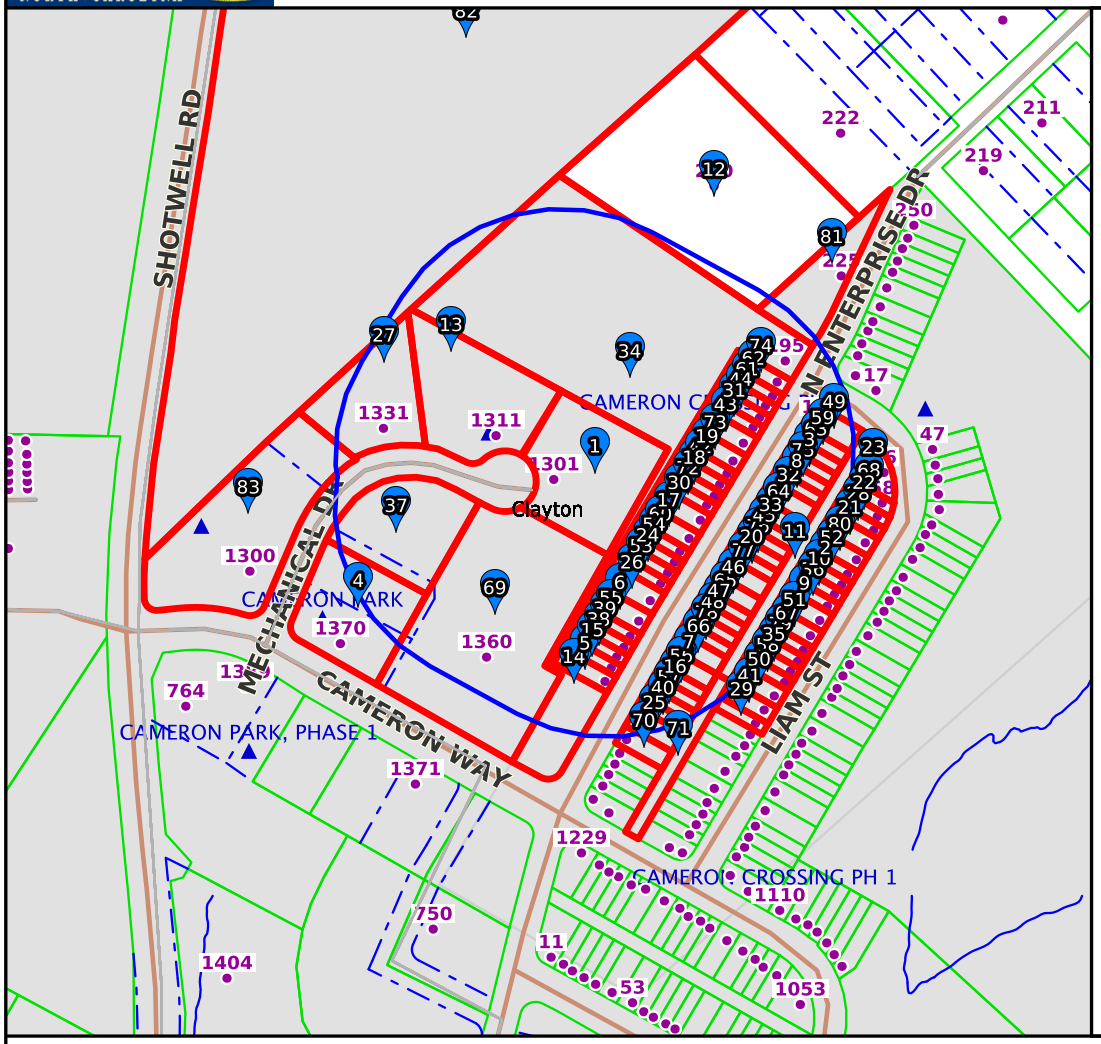
cc: Jared Ackmann- attendee, Paul Keenan, Reuter Walton. Alex Perry

Ben Delwiche-Watts Leaf Architects. Shane Herman-Kimley Horn Engineers.

E:\Projects\23180-NC-Reuter Walton-Clayton, NC\01-Info\09-Meeting Records\250604-neighborhood meeting

*** DISCLAIMER ***

Johnston County assumes no legal responsibility for the information represented here.



Result

id:	05026073E
Tag:	05026073E
NCPin:	165911-55-7668
Mapsheet No:	165911
Owner Name 1:	CORPORATE DEVELOPERS LLC
Owner Name 2:	
Mail Address 1:	403 PARKRIDGE DR
Mail Address 2:	
Mail Address 3:	CLAYTON, NC 27527-6632
Site Address 1:	
Site Address 2:	
Book:	06755
Page:	0400
Market Value:	256130
Assessed Acreage:	0.840
Calc. Acreage:	0.850
Sales Price:	0
Sale Date:	2024-10-08

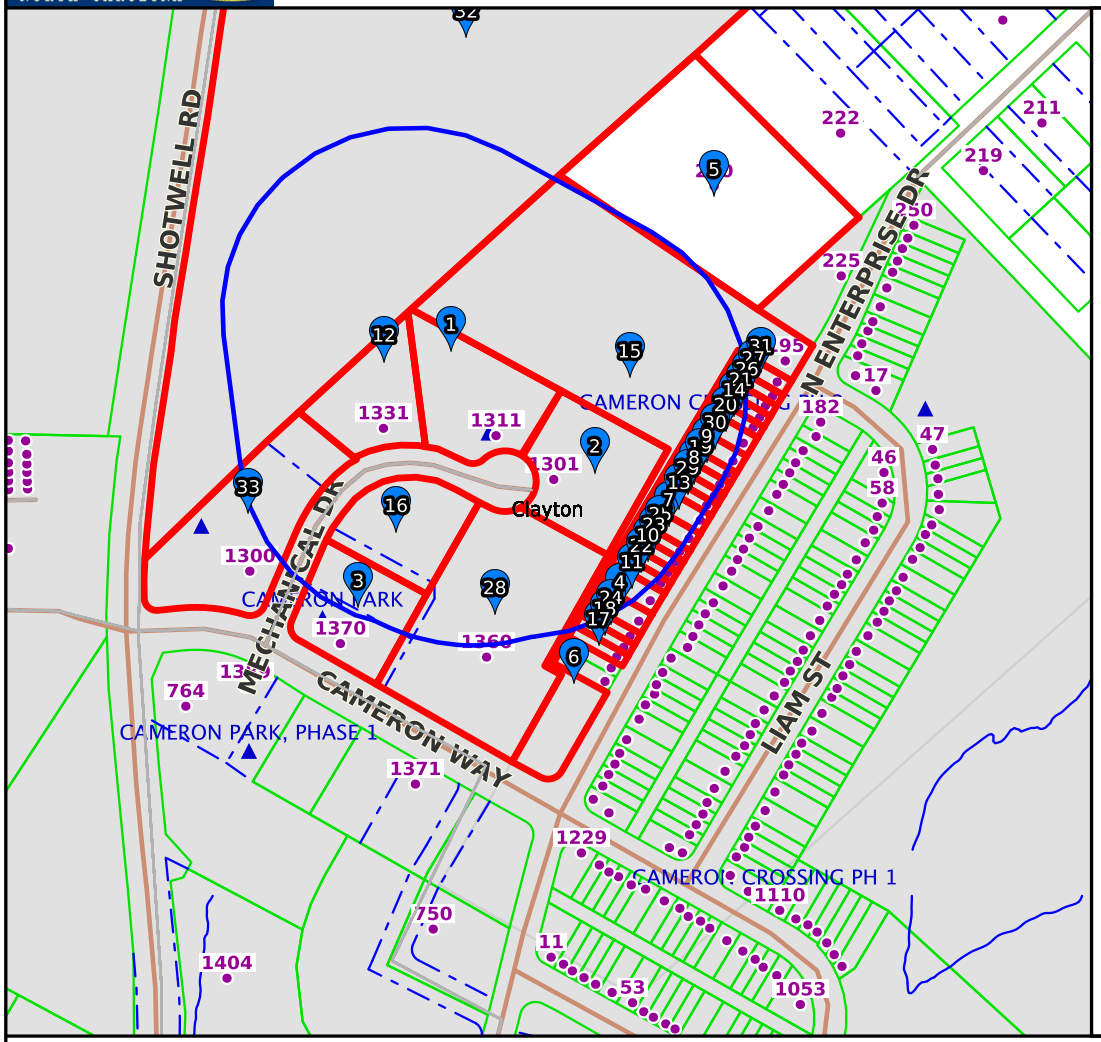
Scale: 1:3235 - 1 in. = 269.57 feet

(The scale is only accurate when printed landscape on a 8 1/2 x 11 size sheet with no page scaling.)

Johnston County GIS
May 22, 2025

*** DISCLAIMER ***

Johnston County assumes no legal responsibility for the information represented here.



Result

id:	05026073S
Tag:	05026073S
NCPin:	165911-55-5881
Mapsheet No:	165911
Owner Name 1:	CORPORATE DEVELOPERS LLC
Owner Name 2:	
Mail Address 1:	403 PARKRIDGE DR
Mail Address 2:	
Mail Address 3:	CLAYTON, NC 27527-6632
Site Address 1:	
Site Address 2:	
Book:	06755
Page:	0400
Market Value:	243940
Assessed Acreage:	0.800
Calc. Acreage:	0.830
Sales Price:	0
Sale Date:	2024-10-08

Scale: 1:3235 - 1 in. = 269.57 feet

(The scale is only accurate when printed landscape on a 8 1/2 x 11 size sheet with no page scaling.)

Johnston County GIS
May 22, 2025

Benjamin Rice.

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: Shotwell Apartments

Application: ROW Abandonment

Location/Date: 109 South Church Street, Clayton NC, 27520 - 6/4/25

	NAME	919 631 0422 ADDRESS
1	Blake Lee	1194 Reed Rd Clayton
2	CONSTANCE PARSON	129 ENTERPRISE DR CLAYTON
3		167 Enterprise Dr Clayton
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		


watts
leaf
architects
a kaas wilson company


Old U.S. Hwy 70
Shotwell Rd
1709
MECHANICAL DRIVE
CAMERON WAY
W Main St
N O'Neil St
S Lombard St
Clayton
BUS
70
1553
watts
leaf
architects
a kaas wilson company

239' FIRE ACCESS
(HOSE LAY)

240' FIRE ACCESS
(HOSE LAY)

PARCEL 1

5 STORY MULTI-FAMILY
COMPLEX
AREA = ±127,354 SF
FFE = 310.33 FT

300' FIRE ACCESS
(HOSE LAY)

PARCEL 2

T

FDC FOR DRY STAND PIPE

PARCEL 3

FIRE TRUCK ACCESS PATH (TYP.)

ABANDONMENT AREA

PARKING GARAGE
68 SPACES
(5 ADA)

244' FIRE ACCESS
(HOSE LAY)

MECHANICAL DR
(VARIABLE WIDTH PUBLIC R/W)
PB 73 PG 30

RELOCATED FIRE HYDRANT

ASPHALT PARKING

ASPHALT PARKING

ASPHALT PARKING

PARCEL 4

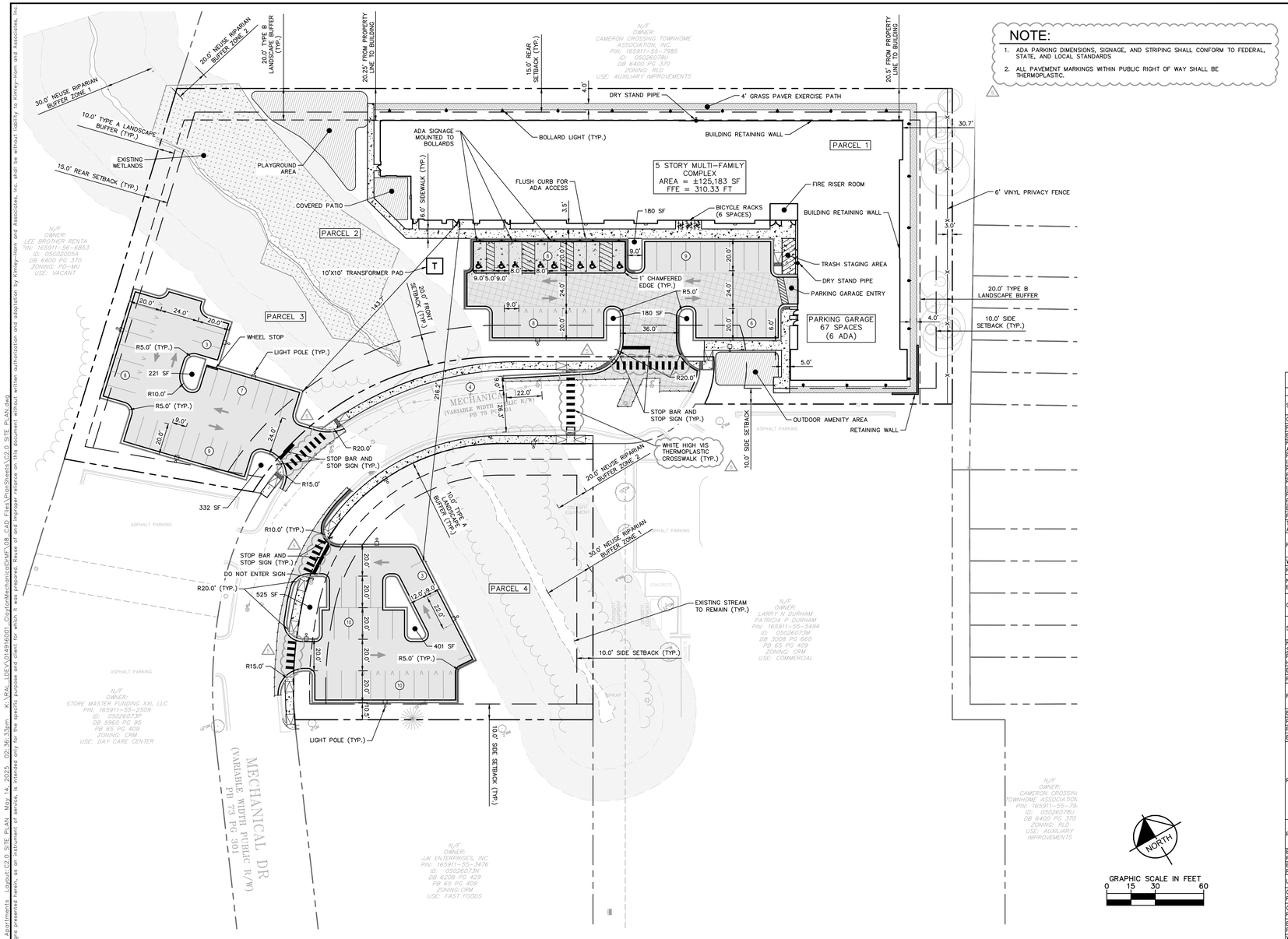
CROSSFIT
EQUIPMENT

CONCRETE

RIPRAP

Kimley»Horn

watts leaf architects
a kaas wilson company



NOTE:

1. ADA PARKING DIMENSIONS, SIGNAGE, AND STRIPING SHALL CONFORM TO FEDERAL, STATE, AND LOCAL STANDARDS
2. ALL PAVEMENT MARKINGS WITHIN PUBLIC RIGHT OF WAY SHALL BE THERMOPLASTIC.

SITE LEGEND

- PROPERTY LINE
- EASEMENT LINE
- FENCE
- STANDARD CURB AND GUTTER
- SPILL CURB AND GUTTER
- ADA ACCESSIBLE ROUTE
- PARKING SPACE COUNT
- ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
- VISITOR PARKING
- DIRECTIONAL PAVEMENT ARROWS
- ACCESSIBLE RAMP
- LIGHT POLE
- BOLLARD LIGHT (SEE LIGHTING PLANS)
- WHEEL STOP
- LIGHT DUTY ASPHALT
- HEAVY DUTY ASPHALT
- CONCRETE SIDEWALK
- HEAVY DUTY CONCRETE PAVEMENT
- GRASS PAVERS

SITE DATA TABLE

	PARCEL 1	PARCEL 2	PARCEL 3	PARCEL 4
SITE ADDRESSES:	1301 MECHANICAL DRIVE	1311 MECHANICAL DRIVE	1331 MECHANICAL DRIVE	N/A
COORDINATES:	35° 39' 38.2" N 78° 28' 35.1" W			
PARCEL NUMBERS:	05026073E	05026073S	05026073T	05026073O
EX. LOT AREAS:	0.84 AC	0.80 AC	0.61 AC	0.66 AC
PROPOSED LOT AREAS:	0.89 AC	0.85 AC	0.61 AC	0.66 AC
PRE-DEVELOPMENT IMPERVIOUS AREA:	0.07 AC	0.05 AC	0 AC	0 AC
PRE-DEVELOPMENT PERVIOUS AREA:	0.82 AC	0.80 AC	0.61 AC	0.66 AC
POST-DEVELOPMENT IMPERVIOUS AREA:	0.66 AC	0.41 AC	0.21 AC	0.19 AC
POST-DEVELOPMENT PERVIOUS AREA:	0.23 AC	0.44 AC	0.40 AC	0.47 AC
EXISTING USE:	VACANT	VACANT	VACANT	VACANT
PROPOSED USE:	MULTI-FAMILY	MULTI-FAMILY	PARKING LOT	PARKING LOT
TOTAL DISTURBED ACREAGE:	2.25 AC			
FEMA:	MAP NUMBER: 3720165900K EFFECTIVE DATE: 6/20/2018 FLOOD ZONE: ZONE X			
WATERSHED:	SWIFT CREEK			
RIVER BASIN:	NEUSE			
NEUSE RIPARIAN BUFFER AREA:	TOTAL = 1.403 AC ZONE 1 = 0.796 AC ZONE 2 = 0.606 AC			
CURRENT ZONING:	CZ-R (CONDITIONAL RESIDENTIAL) (CASE: 2024-24-CZM) (ORDINANCE #2024-05-02)			
SETBACKS:	FRONT: 20' MIN SIDE: 10' MIN REAR: 15' MIN			
NRCS HYDROLOGIC SOIL GROUP:	TYPES: A/D, B, & C			
PROPOSED BUILDING HEIGHT:	5 STORIES/52 FEET			
EXISTING DENSITY:	0 UNITS/AC			
PROPOSED DENSITY:	31 UNITS/AC			
PROPOSED UNITS	TOTAL = 90 UNITS 1 BEDROOM = 32 UNITS 2 BEDROOM = 35 UNITS 3 BEDROOM = 23 UNITS			
EXISTING INTENSITY:	0 SF			
PROPOSED INTENSITY:	125,183 SF			
FLOOR AREA RATIO:	1.00			
BUILDING COVERAGE:	26,602 SF / 20.2% OF TOTAL SITE AREA			
PARKING REQUIRED:	1 SPACE PER ONE BEDROOM UNITS 1.25 SPACES PER TWO BEDROOM UNITS 1.25 SPACE PER THREE BEDROOM UNITS 0.25 VISITOR SPACES PER TOTAL UNITS 128 SPACES REQUIRED BY CODE (152 REQUIRED PER ORDINANCE #2024-05-02 CONDITION #3) 32 ONE BEDROOM UNITS = 32 SPACES 35 TWO BEDROOM UNITS = 44 SPACES 23 THREE BEDROOM UNITS = 29 SPACES 90 TOTAL UNITS = 23 VISITOR SPACES TOTAL = 128 SPACES			
PARKING PROVIDED:	TOTAL = 152 SPACES (14 ADA) ON-SITE = 81 SPACES (8 ADA) OFF-SITE = 4 SPACES GARAGE = 67 SPACES (6 ADA)			
BICYCLE PARKING REQUIRED:	ONE SPACE PER 15 UNITS 90 UNITS = 6 BICYCLE SPACES			
BICYCLE PARKING PROVIDED:	6 BICYCLE SPACES			
LANDSCAPE BUFFERS:	TYPE A BUFFER = 10 FEET TYPE B BUFFER = 20 FEET			
OPEN SPACE REQUIRED:	10% TOTAL LOT SPACE FOR OPEN SPACE (13,111 SF) (INCLUDING 5% ACTIVE OPEN SPACE)			
OPEN SPACE PROVIDED:	24,200 SF TOTAL OPEN SPACE (18.5% OF SITE AREA) 6,570 SF ACTIVE OPEN SPACE (5.0% OF SITE AREA)			
ELECTRIC SERVICE PROVIDER:	DUKE ENERGY (TENTATIVE)			
WATER SERVICE PROVIDER:	TOWN OF CLAYTON			
SEWER SERVICE PROVIDER:	TOWN OF CLAYTON			

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF CLAYTON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

EXISTING CONDITION NOTES:

1. EXISTING INFORMATION TAKEN FROM ALTA/NSPS LAND TITLE SURVEYS PROVIDED BY KCI TECHNOLOGIES, INC., 4505 FALLS OF NEUSE, FLOOR 4, RALEIGH, NC, 27607, (919)-783-9214, DATED 3/28/2024.
2. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. BASED ON FEMA MAP NUMBER 3720165900K EFFECTIVE DATE 6/20/2018.

Town of Clayton
Approved for Construction

Signature: _____ Date: _____
Director/Assistant Director/Lead Engineer/Engr.

Signature: _____ Date: _____
Planning Director

Town of Clayton Engineering must be contacted at a minimum 48 hours prior to the commencement of construction activities. The Town of Clayton will not be responsible for errors and/or omissions on these approved set of plans.

No.	REVISIONS	DATE	BY
5	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	5/14/25	SRH
4	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	4/16/25	SRH
3	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	2/28/25	SRH
2	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	1/17/25	ACP
1	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	11/26/24	ACP

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601
PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 057448 SHANE R. HERMAN
5/14/25

KHA PROJECT 014916001
DATE 09/18/2024
SCALE AS SHOWN
DESIGNED BY SRH
DRAWN BY ADC
CHECKED BY CGB

SITE PLAN

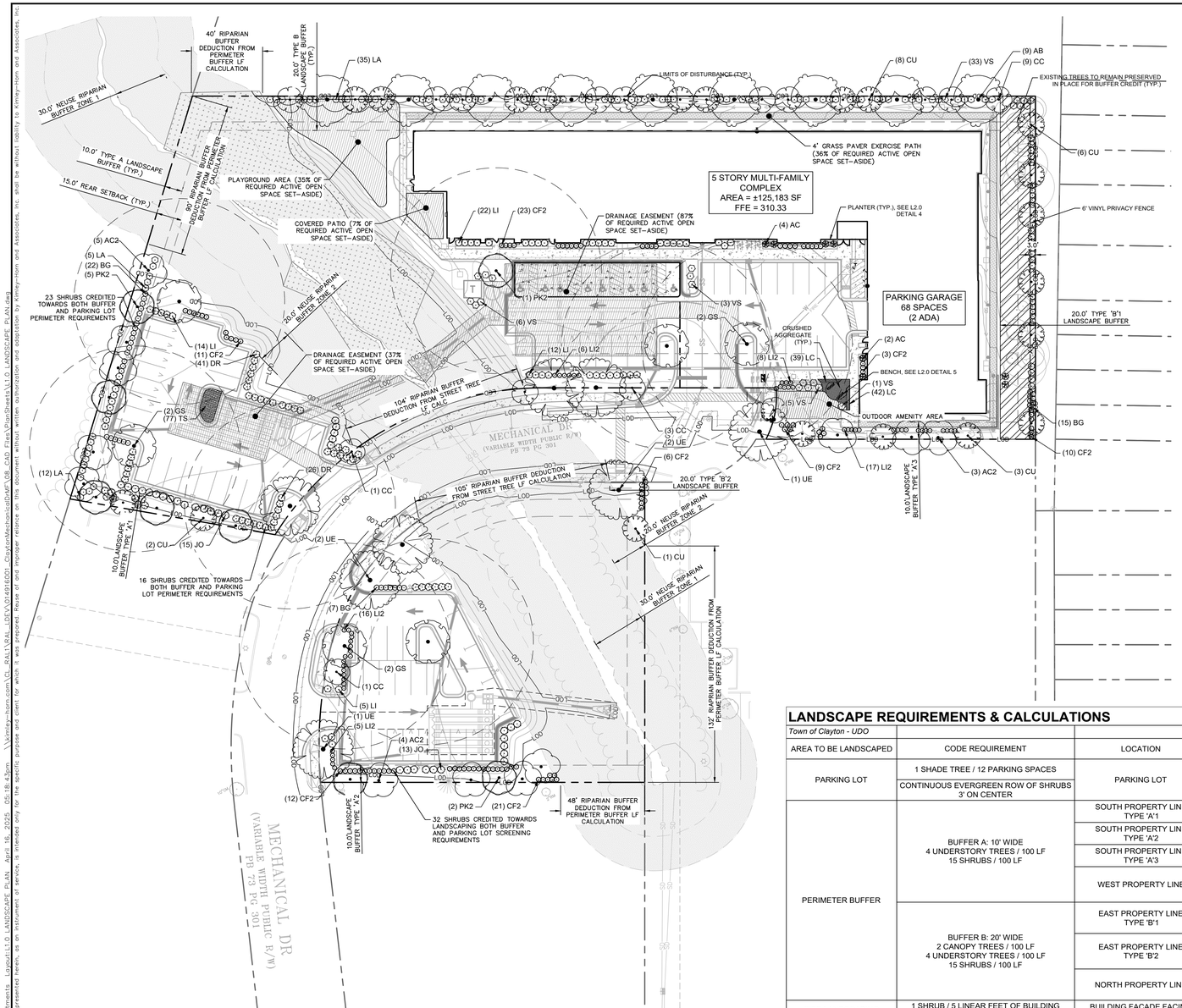
SHOTWELL APARTMENTS

PREPARED FOR
REUTER WALTON

TOWN OF CLAYTON NORTH CAROLINA

SHEET NUMBER
C2.0

Plotted By:Herman, Shane Sheet Set:Shotwell Apartments Layout:C2.0 SITE PLAN May 14, 2025 02:36:33pm K:\RAL_LDEV\014916001-CityofMechanicsburg\CAD Files\PlanSheets\C2.0 SITE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON NAME
CANOPY TREES			
	AB	9	BRANDYWINE RED MAPLE
	GS	6	SHADEMASTER HONEY LOCUST
	PK2	8	KEITH DAVEY CHINESE PISTACHE
	UE	8	ALLEE® LACEBARK ELM
UNDERSTORY TREES			
	AC	8	CRIMSON QUEEN JAPANESE MAPLE
	AC2	12	HEDGE MAPLE
	CC	15	COLLYNAIR® AMERICAN HORNBEAM
	CU	20	GREENSLEEVES KOUSA DOGWOOD
SHRUBS			
	BG	44	GREEN VELVET BOXWOOD
	CF2	96	FRITZ HUBER PLUM YEW
	DR	55	COPPERTONE DISTILYUM
	JO	33	GREY OWL EASTERN REDCEDAR
	LA	59	COASTAL LEUCOTHOE
	LI	68	RED CHOCOLATE FRINGE FLOWER
	LI2	52	CERISE CHARM™ FRINGE FLOWER
	VS	48	SHADES OF PINK™ LAURUSTINUS
GROUND COVERS			
	LC	81	CARDINAL FLOWER
	TS	77	SNOW-N-SUMMER™ ASIATIC JASMINE

TREE SURVEY LEGEND:

Label	Common Name
T1	red maple
T2	pignut hickory
T3	eastern red cedar
T4	sweetgum
T5	loblolly pine
T6	black cherry
T7	callery pear
T8	water oak
T9	willow oak
T10	post oak

LANDSCAPE REQUIREMENTS & CALCULATIONS

Town of Clayton - UDO						
AREA TO BE LANDSCAPED	CODE REQUIREMENT	LOCATION	LINEAR FEET / PARKING SPACES	TOTAL QUANTITY REQUIRED	TOTAL QUANTITY PROVIDED	CODE SECTION
PARKING LOT	1 SHADE TREE / 12 PARKING SPACES	PARKING LOT	**77 PARKING SPACES**	77 / 12 = 7 SHADE TREES	**7 SHADE TREES**	*SEC. 6.6.11*
	CONTINUOUS EVERGREEN ROW OF SHRUBS 3' ON CENTER		**---**	**---**	**CONTINUOUS ROW**	
PERIMETER BUFFER	BUFFER A: 10' WIDE 4 UNDERSTORY TREES / 100 LF 15 SHRUBS / 100 LF	SOUTH PROPERTY LINE TYPE 'A'1	**119 LF**	(119 LF / 100) * 4 = 5 UNDERSTORY TREES (119 LF / 100) * 15 = 18 SHRUBS	**5 UNDERSTORY TREES** **18 SHRUBS**	*SEC. 6.6.12*
		SOUTH PROPERTY LINE TYPE 'A'2	136 LF (MINUS STREAM BUFFER)	(136 LF / 100) * 4 = 6 UNDERSTORY TREES (136 LF / 100) * 15 = 21 SHRUBS	**6 UNDERSTORY TREES** **38 SHRUBS**	
		SOUTH PROPERTY LINE TYPE 'A'3	**153 LF**	(153 LF / 100) * 4 = 6 UNDERSTORY TREES (153 LF / 100) * 15 = 23 SHRUBS	**6 UNDERSTORY TREES** **38 SHRUBS**	
		WEST PROPERTY LINE	244 LF (MINUS STREAM BUFFER: 90 LF) 154 LF	(158 LF / 100) * 4 = 7 UNDERSTORY TREES (158 LF / 100) * 15 = 23 SHRUBS	**7 UNDERSTORY TREES** **26 SHRUBS**	
	BUFFER B: 20' WIDE 2 CANOPY TREES / 100 LF 4 UNDERSTORY TREES / 100 LF 15 SHRUBS / 100 LF	EAST PROPERTY LINE TYPE 'B'1	**200 LF**	(200 LF / 100) * 2 = 4 CANOPY TREES (200 LF / 100) * 4 = 8 UNDERSTORY TREES (200 LF / 100) * 15 = 30 SHRUBS	**23 EXISTING CANOPY TREES** **2 EXISTING UNDERSTORY TREES** **31 PROPOSED SHRUBS**	
		EAST PROPERTY LINE TYPE 'B'2	175 LF (MINUS STREAM BUFFER: 138 LF) 37 LF	(37 LF / 100) * 2 = 1 CANOPY TREES (37 LF / 100) * 4 =1 UNDERSTORY TREES (37 LF / 100) * 15 = 6 SHRUBS	**1 CANOPY TREE** **1 UNDERSTORY TREES** **6 SHRUBS**	
		NORTH PROPERTY LINE	446 LF (MINUS STREAM BUFFER)	(446 LF / 100) * 2 = 9 CANOPY TREES (446 LF / 100) * 4 = 18 UNDERSTORY TREES (446 LF / 100) * 15 = 67 SHURBS	**9 CANOPY TREES** **18 UNDERSTORY TREES** **67 SHRUBS**	
SITE LANDSCAPING	1 SHRUB / 5 LINEAR FEET OF BUILDING FAÇADE	BUILDING FAÇADE FACING PUBLIC / PRIVATE STREETS	**210 LF**	210 LF / 5 = 42 SHRUBS	**45 SHRUBS**	*SEC. 6.6.14*

NOTE:
SEE L2.0 LANDSCAPE DETAILS FOR FULL PLANT SCHEDULE

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF CLAYTON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

EXISTING CONDITION NOTES:

1. EXISTING INFORMATION TAKEN FROM ALTA/NSPS LAND TITLE SURVEYS PROVIDED BY KCI TECHNOLOGIES, INC., 4505 FALLS OF NEUSE, FLOOR 4, RALEIGH, NC, 27607, (919)-783-9214, DATED 3/28/2024.
2. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. BASED ON FEMA MAP NUMBER 3720165900K EFFECTIVE DATE 6/20/2018.

Town of Clayton
Approved for Construction

Signature: _____ Date: _____
Director/Assistant Director of Engineering

Signature: _____ Date: _____
Planning Director

Town of Clayton Engineering must be contacted at a minimum 48 hours prior to the commencement of construction activities. The Town of Clayton will not be responsible for errors and/or omissions on these approved set of plans.

No.	REVISIONS	DATE	BY
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1	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	11/26/24	ACP

Kimley»Horn
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421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601
PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
NC FIRM #F-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2187 AUSTIN M. ROMINE

KHA PROJECT 014916001
DATE 09/18/2024
SCALE AS SHOWN
DESIGNED BY AMF
DRAWN BY AMF
CHECKED BY AMR

LANDSCAPE PLAN

SHOTWELL APARTMENTS
PREPARED FOR
REUTER WALTON
TOWN OF CLAYTON NORTH CAROLINA

SHEET NUMBER
L1.0

Plotted By: Collinson, Alex Sheet Set: Shotwell Apartments Layout: L1.0 LANDSCAPE PLAN April 18, 2025 05:18:43pm \\kimley-horn.com\CL_RAL1\RAL_JOBS\014916001 Clayton\Mechanical\SHP\28_ESD Files\Plan Sheets\L1.0 LANDSCAPE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Town of Cla
Planning Depart
111 E. Second Street, Clayton, NC
P.O. Box 879, Clayton, NC
Phone: 919-553
Fax: 919-553

August 8, 2025

PUBLIC NOTICE

SUBJECT: **Project:** 2025-56 – Street Closure - Shotwell Apartments

Location: 1311 & 1301 Mechanical Drive

PIN #(s): 165911-55-5881 & 165911-55-7668

Applicant: Reuter Walton Development c/o Paul Keenan

Dear Clayton Area Property Owner:

Notice is hereby given that the Clayton Town Council will hold a public hearing on Monday, August 18, 2025, at 6:00 p.m. in the Council Chambers at Town Hall, 111 E. Second Street, to consider the street closure application referenced above.

The applicant is requesting, pursuant to NCGS §160A-299, the permanent closure of a 0.10-acre portion of the cul-de-sac on Mechanical Drive. The area proposed for closure is a public right-of-way currently maintained by the Town of Clayton. It will be incorporated into the above-mentioned properties and used to accommodate driveway depth and parking for a 90-unit multi-family development.

Based upon records in the Johnston County Tax Office, you are the owner of property that is within 300 feet of this proposed street closure request. You are invited to attend this public hearing and express your opinions on this request to the Town Council.

If you should need additional assistance or information, please contact the Planning Department at (919) 553-5002 or email me at aduchesne@townofclaytonnc.org.

Sincerely,

Audrey Duchesne, Senior Planner

Town of Cla
Planning Depart
111 E. Second Street, Clayton, NC
P.O. Box 879, Clayton, NC
Phone: 919-553
Fax: 919-553

8 de agosto de 2025

AVISO PÚBLICO

ASUNTO: **Proyecto:** 2025-56 – Street Closure - Shotwell Apartments

Ubicación: 1311 & 1301 Mechanical Drive

Números de PIN: 165911-55-5881 & 165911-55-7668

Solicitante: Reuter Walton Development c/o Paul Keenan.

Estimado propietario de propiedad en el área de Clayton:

Por la presente se notifica que el Concejo Municipal de Clayton llevará a cabo una audiencia pública el lunes 18 de agosto de 2025, a las 6:00 p. m. en la Sala del Concejo en el Ayuntamiento, 111 E. Second Street, para considerar la solicitud de cierre de calle mencionada anteriormente.

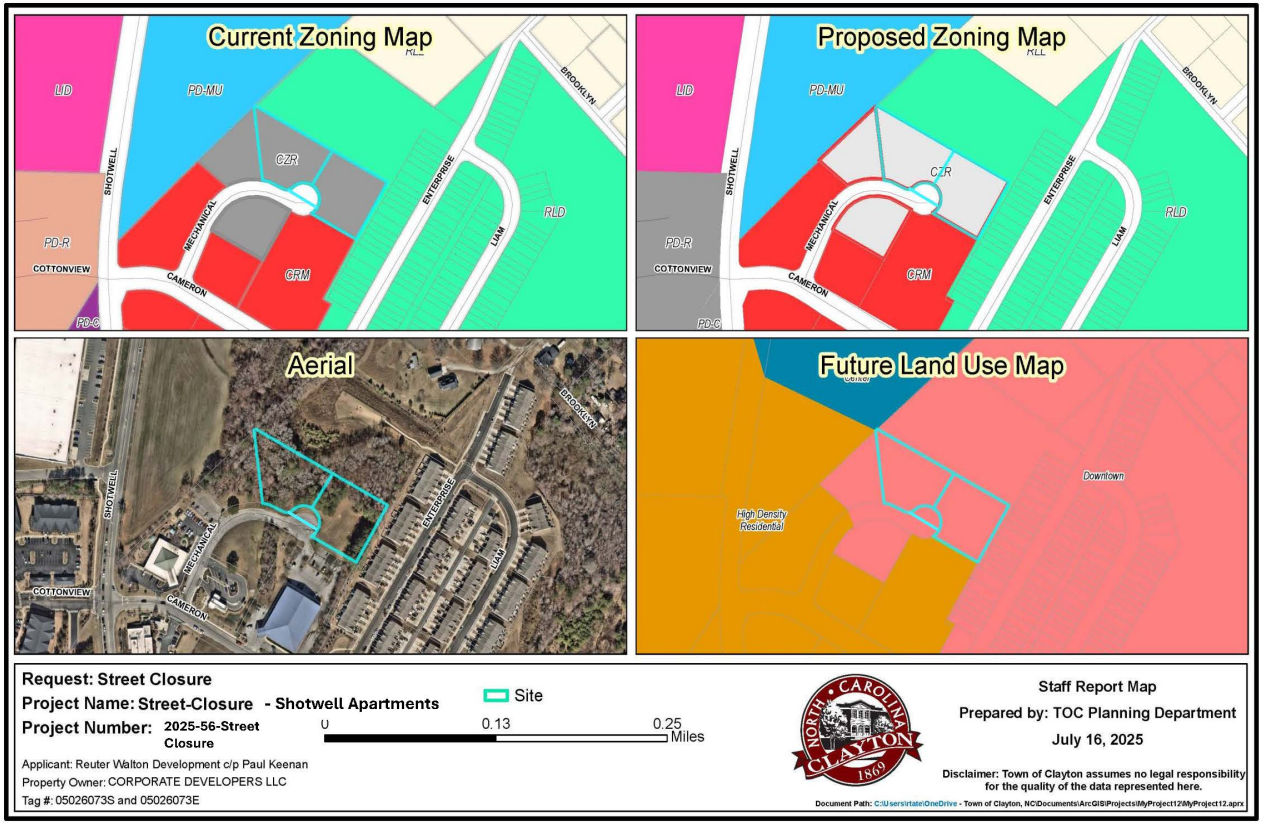
El solicitante está solicitando, conforme al Estatuto General de Carolina del Norte §160A-299, el cierre permanente de una porción de 0.10 acres del callejón sin salida en Mechanical Drive. El área propuesta para el cierre es un derecho de paso público actualmente mantenido por el Municipio de Clayton. Esta área se incorporará a las propiedades mencionadas anteriormente y se utilizará para ampliar la profundidad de entradas de vehículos y estacionamiento para un desarrollo multifamiliar de 90 unidades.

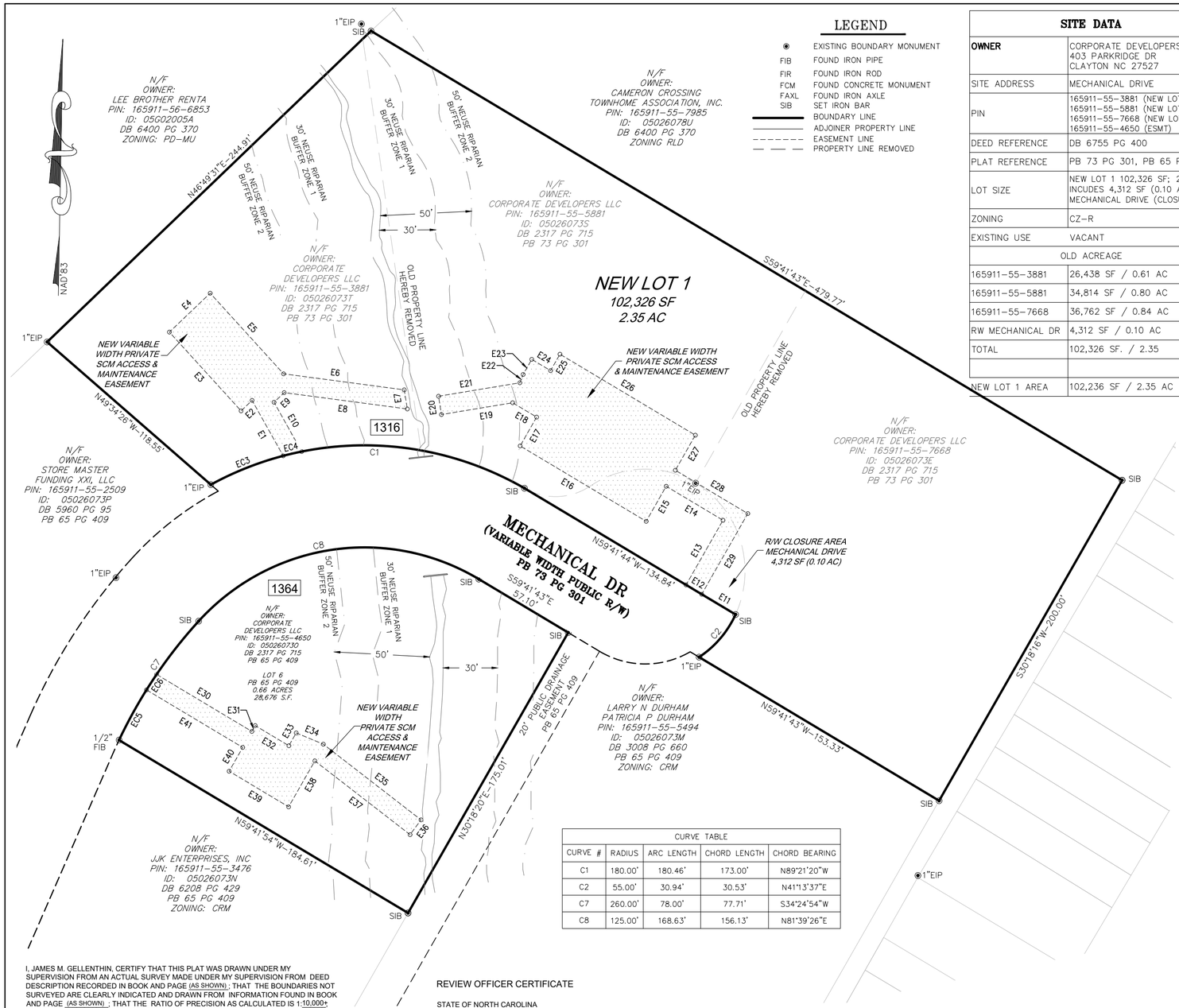
Según los registros de la Oficina de Impuestos del Condado de Johnston, usted es propietario de una propiedad que se encuentra dentro de un radio de 300 pies de esta solicitud de cierre de calle propuesta. Se le invita a asistir a esta **audiencia pública** y expresar su opinión sobre esta solicitud ante el Concejo Municipal.

Si necesita ayuda o información adicional, comuníquese con el Departamento de Planificación al (919) 553-5002 o envíe un correo electrónico a aduchesne@townofclaytonnc.org.

Atentamente,

Audrey Duchesne, Planificadora

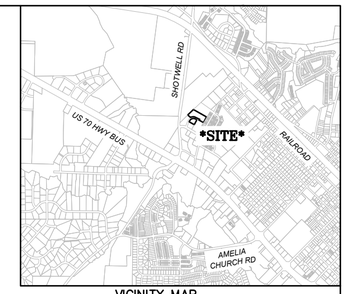

Current Zoning Map
LID
PD-MU
CZR
GRM
PD-R
COTTONVIEW
SHOTWELL
MECHANICAL
CAMERON
ENTERPRISE
LIAM
BROOKLYN
RLD
Proposed Zoning Map
Aerial
Future Land Use Map
Downtown
High Density Residential
Request: Street Closure
Project Name: Street-Closure - Shotwell Apartments
Project Number: 2025-56-Street Closure
Applicant: Reuter Walton Development c/p Paul Keenan
Property Owner: CORPORATE DEVELOPERS LLC
Tag #: 05026073S and 05026073E
Site
0
0.13
0.25
Miles
NORTH CAROLINA CLAYTON 1869
Staff Report Map
Prepared by: TOC Planning Department
July 16, 2025
Disclaimer: Town of Clayton assumes no legal responsibility for the quality of the data represented here.
Document Path: C:\Users\tate\OneDrive - Town of Clayton, NC\Documents\ArcGIS\Projects\MyProject12\MyProject12.aprx



LEGEND

◉	EXISTING BOUNDARY MONUMENT
FIB	FOUND IRON PIPE
FIR	FOUND IRON ROD
FCM	FOUND CONCRETE MONUMENT
FAXL	FOUND IRON AXLE
SIB	SET IRON BAR
———	BOUNDARY LINE
———	ADJOINER PROPERTY LINE
- - - -	EASEMENT LINE
— — —	PROPERTY LINE REMOVED

SITE DATA	
OWNER	CORPORATE DEVELOPERS LLC 403 PARKRIDGE DR CLAYTON NC 27527
SITE ADDRESS	MECHANICAL DRIVE
PIN	165911-55-3881 (NEW LOT) 165911-55-5881 (NEW LOT) 165911-55-7668 (NEW LOT) 165911-55-4650 (ESMT)
DEED REFERENCE	DB 6755 PG 400
PLAT REFERENCE	PB 73 PG 301, PB 65 PG 409
LOT SIZE	NEW LOT 1 102,326 SF; 2.35 AC INCUDES 4,312 SF (0.10 AC) OF MECHANICAL DRIVE (CLOSURE)
ZONING	CZ-R
EXISTING USE	VACANT
	OLD ACREAGE
165911-55-3881	26,438 SF / 0.61 AC
165911-55-5881	34,814 SF / 0.80 AC
165911-55-7668	36,762 SF / 0.84 AC
RW MECHANICAL DR	4,312 SF / 0.10 AC
TOTAL	102,326 SF. / 2.35
NEW LOT 1 AREA	102,236 SF / 2.35 AC



VICINITY MAP
SCALE: NTS

GENERAL SURVEY NOTES:

1. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011).

2. THIS SURVEY WAS MADE IN ACCORDANCE WITH LAWS AND/OR MINIMUM STANDARDS OF THE STATE OF NORTH CAROLINA.

3. THIS SURVEY WAS MADE WITHOUT THE BENEFIT OF A REPORT OF TITLE.

4. PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION X BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. 3700963100J, WITH AN EFFECTIVE DATE OF OCTOBER 02, 2008.

5. THE PROPERTY HAS DIRECT ACCESS TO MECHANICAL DRIVE(PUBLIC RIGHT-OF-WAY).

6. ZONING: CRM PER TOWN OF CLAYTON

7. OWNER INFORMATION:
CORPORATE DEVELOPERS LLC
403 PARKRIDGE DR
CLAYTON NC 27527

CERTIFICATE OF EXEMPTION

PLATS DEEMED TO BE EXEMPT FROM THE PROVISIONS OF THIS ORDINANCE SHALL CONTAIN THE FOLLOWING

THE PLAT IS EXEMPT FROM THE PROVISIONS OF THE TOWN OF CLAYTON UNIFIED DEVELOPMENT ORDINANCE AND MAY BE RECORDED WITH THE OFFICE OF THE JOHNSTON COUNTY REGISTER OF DEEDS.

PLANNING DIRECTOR _____ DATE _____

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
E1	N 29°50'59" W	34.45'
E2	S 47°02'16" W	8.30'
E3	N 42°57'44" W	58.01'
E4	N 47°02'16" E	30.75'
E5	S 42°57'44" E	59.37'
E6	S 82°36'26" E	67.10'
E7	S 9°27'46" E	10.45'
E8	N 82°36'26" W	68.49'
E9	S 47°02'16" W	7.63'
E10	S 29°50'59" E	30.62'
E11	N 59°41'44" W	21.62'
E12	N 59°41'43" W	10.00'
E13	N 30°18'17" E	40.36'
E14	N 59°41'43" W	36.27'
E15	S 30°18'17" W	21.88'
E16	N 59°41'43" W	80.50'
E17	N 30°18'17" E	18.00'
E18	N 59°41'43" W	15.30'
E19	S 80°49'06" W	39.80'
E20	N 9°10'54" W	10.00'

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
E21	N 80°49'06" E	45.43'
E22	N 22°00'46" E	4.82'
E23	N 30°18'17" E	9.43'
E24	S 59°41'43" E	12.01'
E25	N 30°18'17" E	10.25'
E26	S 59°41'43" E	86.50'
E27	S 30°18'17" W	21.87'
E28	S 59°41'43" E	46.27'
E29	S 30°18'17" W	50.36'
E30	S 59°41'43" E	60.86'
E31	N 30°18'17" E	3.65'
E32	S 59°41'43" E	21.51'
E33	N 30°18'17" E	8.00'
E34	S 67°52'20" E	16.16'
E35	S 52°52'48" E	67.55'
E36	S 37°07'12" W	10.00'
E37	N 52°52'48" W	65.85'
E38	S 30°18'17" W	28.67'
E39	N 59°41'43" W	38.01'
E40	N 30°18'17" E	14.85'
E41	N 59°41'43" W	61.46'

CURVE TABLE				
CURVE #	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	180.00'	180.46'	173.00'	N89°21'20"W
C2	55.00'	30.94'	30.53'	N41°13'37"E
C7	260.00'	78.00'	77.71'	S34°24'54"W
C8	125.00'	168.63'	156.13'	N81°39'26"E

EASEMENT CURVE TABLE				
CURVE #	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
EC3	180.00'	42.93'	42.83'	S68°45'24"W
EC4	180.00'	10.46'	10.46'	S77°15'18"W
EC5	260.00'	31.02'	31.01'	N29°14'20"E
EC6	260.00'	10.02'	10.02'	N33°45'40"E

I, JAMES M. GELLENTHIN, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION FROM DEED DESCRIPTION RECORDED IN BOOK AND PAGE (AS SHOWN) ; THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AND DRAWN FROM INFORMATION FOUND IN BOOK AND PAGE (AS SHOWN) ; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:10,000+ AND THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER, AND SEAL THIS

18TH DAY OF APRIL, 2025.

_____
JAMES M. GELLENTHIN PLS L-3860

NOT FOR RECORDATION

I HEREBY CERTIFY THAT THIS PLAT IS OF THE FOLLOWING TYPE:

G.S. 47-30 (f)(11)(d). THIS SURVEY IS OF ANOTHER CATEGORY, SUCH AS THE RECOMBINATION OF EXISTING PARCELS, A COURT-ORDERED SURVEY, OR OTHER EXCEPTION TO THE DEFINITION OF SUBDIVISION.

_____
JAMES M. GELLENTHIN PLS L-3860

GRAPHIC SCALE
40' 0' 20' 40' 80'
1 INCH = 40 FEET

REVIEW OFFICER CERTIFICATE

STATE OF NORTH CAROLINA
COUNTY OF JOHNSTON

I, _____, REVIEW OFFICER OF JOHNSTON COUNTY, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

_____
DATE REVIEW OFFICER

CERTIFICATE OF OWNERSHIP AND DEDICATION

I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON, WHICH IS LOCATED IN THE SUBDIVISION JURISDICTION OF THE TOWN OF CLAYTON AND THAT I HEREBY ADOPT THIS SUBDIVISION PLAN WITH MY FREE CONSENT, ESTABLISH MINIMUM SETBACK LINES, AND DEDICATE ALL STREETS, ALLEYS, PARKS AND OTHER SITES AND EASEMENTS TO PUBLIC OR PRIVATE USE AS NOTED.

_____
DATE OWNER

CERTIFICATE OF FLOODWAY INFORMATION

PROPERTY SHOWN HEREON IS NOT LOCATED IN A FEMA DESIGNATED FLOOD ZONE.

FLOOD HAZARD PANEL NO. 3700963100J

EFFECTIVE DATE: OCTOBER 2, 2008

_____
DATE SURVEYOR

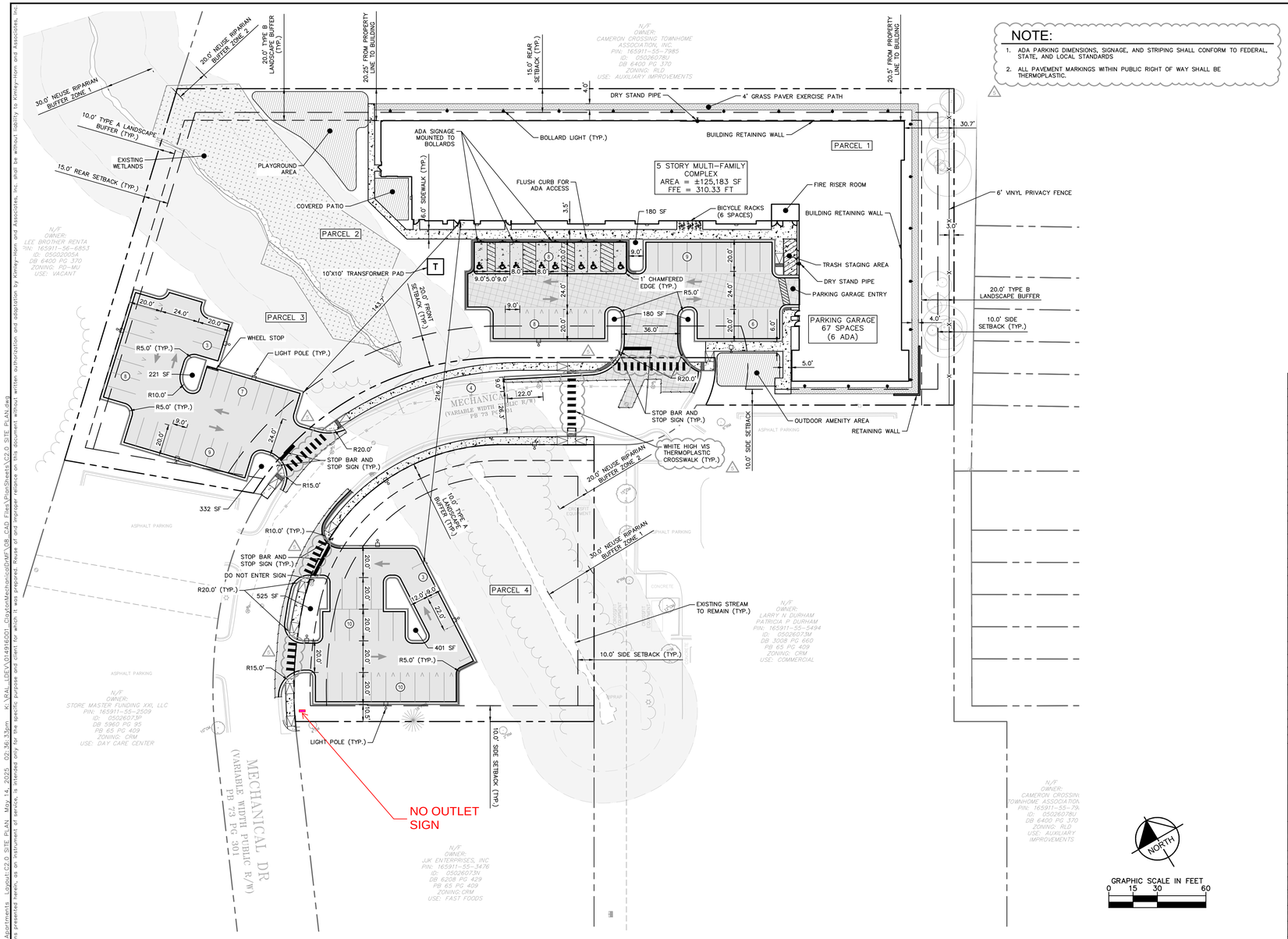
KCI ASSOCIATES OF NORTH CAROLINA C-0764

KCI ASSOCIATES OF N.C.
ENGINEERS, SURVEYORS AND PLANNERS

4800 FALLS OF NEUSE ROAD, SUITE 200
RALEIGH, NC 27609
PHONE (919) 783-9214 * FAX (919) 783-9266

RECOMBINATION AND EASEMENT PLAT
FOR
CORPORATE DEVELOPERS LLC
LOCATED IN
TOWN OF CLAYTON, JOHNSTON COUNTY, NC

DATE:	SCALE:	SHEET:
MARCH 03, 2025	1" = 40'	1 OF 1



NOTE:

1. ADA PARKING DIMENSIONS, SIGNAGE, AND STRIPING SHALL CONFORM TO FEDERAL, STATE, AND LOCAL STANDARDS
2. ALL PAVEMENT MARKINGS WITHIN PUBLIC RIGHT OF WAY SHALL BE THERMOPLASTIC.

SITE LEGEND

- PROPERTY LINE
- EASEMENT LINE
- FENCE
- STANDARD CURB AND GUTTER
- SPILL CURB AND GUTTER
- ADA ACCESSIBLE ROUTE
- PARKING SPACE COUNT
- ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
- VISITOR PARKING
- DIRECTIONAL PAVEMENT ARROWS
- ACCESSIBLE RAMP
- LIGHT POLE
- BOLLARD LIGHT (SEE LIGHTING PLANS)
- WHEEL STOP
- LIGHT DUTY ASPHALT
- HEAVY DUTY ASPHALT
- CONCRETE SIDEWALK
- HEAVY DUTY CONCRETE PAVEMENT
- GRASS PAVERS

SITE DATA TABLE

	PARCEL 1	PARCEL 2	PARCEL 3	PARCEL 4
SITE ADDRESSES:	1301 MECHANICAL DRIVE	1311 MECHANICAL DRIVE	1331 MECHANICAL DRIVE	N/A
COORDINATES:	35° 39' 38.2" N 78° 28' 35.1" W			
PARCEL NUMBERS:	05026073E	05026073S	05026073T	05026073O
EX. LOT AREAS:	0.84 AC	0.80 AC	0.61 AC	0.66 AC
PROPOSED LOT AREAS:	0.89 AC	0.85 AC	0.61 AC	0.66 AC
PRE-DEVELOPMENT IMPERVIOUS AREA:	0.07 AC	0.05 AC	0 AC	0 AC
PRE-DEVELOPMENT PERVIOUS AREA:	0.82 AC	0.80 AC	0.61 AC	0.66 AC
POST-DEVELOPMENT IMPERVIOUS AREA:	0.66 AC	0.41 AC	0.21 AC	0.19 AC
POST-DEVELOPMENT PERVIOUS AREA:	0.23 AC	0.44 AC	0.40 AC	0.47 AC
EXISTING USE:	VACANT	VACANT	VACANT	VACANT
PROPOSED USE:	MULTI-FAMILY	MULTI-FAMILY	PARKING LOT	PARKING LOT
TOTAL DISTURBED ACREAGE:	2.25 AC			
FEMA:	MAP NUMBER: 3720165900K EFFECTIVE DATE: 6/20/2018 FLOOD ZONE: ZONE X			
WATERSHED:	SWIFT CREEK			
RIVER BASIN:	NEUSE			
NEUSE RIPARIAN BUFFER AREA:	TOTAL = 1.403 AC ZONE 1 = 0.796 AC ZONE 2 = 0.606 AC			
CURRENT ZONING:	CZ-R (CONDITIONAL RESIDENTIAL) (CASE: 2024-24-CZM) (ORDINANCE #2024-05-02)			
SETBACKS:	FRONT: 20' MIN SIDE: 10' MIN REAR: 15' MIN			
NRCS HYDROLOGIC SOIL GROUP:	TYPES: A/D, B, & C			
PROPOSED BUILDING HEIGHT:	5 STORIES/52 FEET			
EXISTING DENSITY:	0 UNITS/AC			
PROPOSED DENSITY:	31 UNITS/AC			
PROPOSED UNITS	TOTAL = 90 UNITS 1 BEDROOM = 32 UNITS 2 BEDROOM = 35 UNITS 3 BEDROOM = 23 UNITS			
EXISTING INTENSITY:	0 SF			
PROPOSED INTENSITY:	125,183 SF			
FLOOR AREA RATIO:	1.00			
BUILDING COVERAGE:	26,602 SF / 20.2% OF TOTAL SITE AREA			
PARKING REQUIRED:	1 SPACE PER ONE BEDROOM UNITS 1.25 SPACES PER TWO BEDROOM UNITS 1.25 SPACE PER THREE BEDROOM UNITS 0.25 VISITOR SPACES PER TOTAL UNITS 128 SPACES REQUIRED BY CODE (152 REQUIRED PER ORDINANCE #2024-05-02 CONDITION #3) 32 ONE BEDROOM UNITS = 32 SPACES 35 TWO BEDROOM UNITS = 44 SPACES 23 THREE BEDROOM UNITS = 29 SPACES 90 TOTAL UNITS = 23 VISITOR SPACES TOTAL = 128 SPACES			
PARKING PROVIDED:	TOTAL = 152 SPACES (14 ADA) ON-SITE = 81 SPACES (8 ADA) OFF-SITE = 4 SPACES GARAGE = 67 SPACES (6 ADA)			
BICYCLE PARKING REQUIRED:	ONE SPACE PER 15 UNITS 90 UNITS = 6 BICYCLE SPACES			
BICYCLE PARKING PROVIDED:	6 BICYCLE SPACES			
LANDSCAPE BUFFERS:	TYPE A BUFFER = 10 FEET TYPE B BUFFER = 20 FEET			
OPEN SPACE REQUIRED:	10% TOTAL LOT SPACE FOR OPEN SPACE (13,111 SF) (INCLUDING 5% ACTIVE OPEN SPACE)			
OPEN SPACE PROVIDED:	24,200 SF TOTAL OPEN SPACE (18.5% OF SITE AREA) 6,570 SF ACTIVE OPEN SPACE (5.0% OF SITE AREA)			
ELECTRIC SERVICE PROVIDER:	DUKE ENERGY (TENTATIVE)			
WATER SERVICE PROVIDER:	TOWN OF CLAYTON			
SEWER SERVICE PROVIDER:	TOWN OF CLAYTON			

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF CLAYTON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

EXISTING CONDITION NOTES:

1. EXISTING INFORMATION TAKEN FROM ALTA/NSPS LAND TITLE SURVEYS PROVIDED BY KCI TECHNOLOGIES, INC., 4505 FALLS OF NEUSE, FLOOR 4, RALEIGH, NC, 27607, (919)-783-9214, DATED 3/28/2024.
2. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. BASED ON FEMA MAP NUMBER 3720165900K EFFECTIVE DATE 6/20/2018.

Town of Clayton Construction Drawing Approved for Construction

Approved by :

Approved Date: Expiration Date:

Official Document

Town of Clayton Engineering must be contacted at a minimum 48 hours prior to the commencement of construction activities. This document has been reviewed by the Town of Clayton and to the best of our knowledge and belief, conforms to all laws, ordinances, policies and specifications that are applicable. Approval by the Town shall not relieve the Applicant and/or Design Professional from the responsibility for adequacy of design or for errors or omissions in the plans and specifications and meeting all applicable standards and regulations.

No.	REVISIONS	DATE	BY
5	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	5/14/25	SRH
4	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	4/16/25	SRH
3	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	2/28/25	SRH
2	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	1/17/25	ACP
1	SITE PLAN/CONSTRUCTION DOCUMENTS RESUB	11/26/24	ACP

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601
PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 057448 SHANE R. HERMAN
5/14/25

KHA PROJECT 014916001
DATE 09/18/2024
SCALE AS SHOWN
DESIGNED BY SRH
DRAWN BY ADC
CHECKED BY CGB

SITE PLAN

SHOTWELL APARTMENTS

PREPARED FOR
REUTER WALTON

TOWN OF CLAYTON NORTH CAROLINA

SHEET NUMBER
C2.0

Plotted By:Herron, Steve Sheet Set:Shotwell Apartments Layout:C2.0 SITE PLAN May 14, 2025 02:36:33pm K:\RAL_LDEV\014916001-City\Mechanical\MAP\08 CAD Files\Plan Sheets\C2.0 SITE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Column

OFFICIAL AD PROOF

This is the proof of your ad scheduled to run in **Johnstonian News - (Johnston County)** on the dates indicated below. If changes are needed, please contact us prior to deadline at **(919) 284-2295**. Please note: when you submit a legal document, you are responsible for ensuring payment for the associated fees or charges are paid.

Notice ID: 18snGnyLCtJquYJWpj59 | **Proof Updated: Jul. 11, 2025 at 11:57am EDT**
Notice Name: 2025-56-Street Closure -Shotwell Apartments

See Proof on Next Page

This is not an invoice. Below is an estimated price, and it is subject to change. You will receive an invoice with the final price upon invoice creation by the publisher.

FILER	FILING FOR
Sam Johnson-Phillips sphillips@townofclaytonnc.org (919) 553-5002	Johnstonian News - (Johnston County)

Columns Wide: 1 **Ad Class:** Legals

07/23/2025: Other Notice	63.00
07/30/2025: Other Notice	63.00
08/06/2025: Other Notice	63.00
08/13/2025: Other Notice	63.00

Subtotal	$252.00
Tax %	0
Processing Fee	$30.20
Total	**$282.20**

PUBLIC NOTICE

In accordance with the Town of Clayton Unified Development Ordinance, Section 2.4.8.D, the Clayton Town Council will hold a Public Hearing on Monday, August 18, 2025, at 6:00 PM at Town Hall, 111 E. Second St., to consider:

2025-56-Street Closure – A request has been submitted to the Town for the permanent closure of approximately 0.10 acres, consisting of a portion of the existing cul-de-sac of Mechanical Drive, a Town-maintained public right-of-way. The closure is associated with a proposed multi-family development on properties identified as Johnston County Tax Parcels 05026073S, 05026073E, 05026073O, and 05026073T. The affected area is proposed for incorporation into the overall project site. (Legislative)

Audrey Duchesne, Senior Planner
919-553-5002, Ext. 5501

The Johnstonian

Please advertise on the following dates:

July 23, 2025
July 30, 2025
August 06, 2025
August 13, 2025

Affidavit of publication required.

The Johnstonian
July 23, 30, August 6, 13, 2025

AN ORDINANCE DECLARING THE INTENT OF THE TOWN COUNCIL TO CLOSE A 0.10-ACRE PORTION OF MECHANICAL DRIVE AND CALLING FOR A PUBLIC HEARING IN ACCORDANCE WITH N.C.G.S. §160A-299
2025-56-STREET CLOSURE, SHOTWELL APARTMENTS (MECHANICAL DRIVE)

WHEREAS the Town Council of the Town of Clayton has received a request to permanently close a 0.10-acre portion of Mechanical Drive, a Town-maintained street, located within the Town limits; and

WHEREAS said properties are owned by CORPORATE DEVELOPERS LLC; and

WHEREAS upon closure, the 0.10-acre portion of right-of-way will be divided and incorporated into the adjoining properties located at 1311 and 1301 Mechanical Drive, identified as NC PIN #s 165911-55-5881 and 165911-55-7668 (Johnston County Tax IDs 05026073S and 05026073E);

WHEREAS, the Town Council intends to proceed with the closure in accordance with the procedures set forth in North Carolina General Statute §160A-299;

WHEREAS the Planning Board of the Town of Clayton has reviewed the proposed Street Closure application at their July 28, 2025 meeting; and

WHEREAS notice of a Public Hearing to consider the Street Closure was published in accordance with law in The Johnstonian, a local newspaper, as required by Unified Development Ordinance Section 2.4.8(C) and North Carolina General Statutes §160A-299; and

WHEREAS a notice of a public hearing to consider the proposed Street Closure was mailed to the owner of the parcel(s) of land involved, as shown on the Johnston County Tax Listing, and to the owners of all parcels of land abutting that (those) parcels(s) of land and within 300 feet of the subject parcel(s) of land, as shown on the Johnston County Tax Listings, by depositing a copy of the same in the United States Mail, first class postage paid, as required by Unified Development Ordinance Section 2.4.8(E) and by North Carolina General Statutes §160A-299; and

WHEREAS notice of a public hearing to consider the proposed Street Closure was posted on the street as required by Unified Development Ordinance Section 2.4.8(C) of the and by North Carolina General Statues §160A-299 of the; and

WHEREAS the said public hearing was conducted at the Town Council meeting held at 6:00 p.m. on August 18, 2025, wherein a reasonable opportunity was given to all those in attendance to speak either in favor or against the said change to make relevant comments.

THEREFORE, after duty considering the matter, **THE TOWN COUNCIL OF THE TOWN OF CLAYTON DOES HEREBY ORDAIN:**

SECTION 1. The Town Council hereby declares its intent to permanently close a 0.10-acre portion of Mechanical Drive, located at the terminus of the street and within the Town's corporate limits.

SECTION 2. If, after the public hearing, the Council determines that the closure is not contrary to the public interest and that no individual owning property in the vicinity would be deprived of reasonable means of ingress or egress, the Council may adopt an order permanently closing the 0.10-acre portion of Mechanical Drive.

SECTION 3. Upon adoption of the order, the ownership of the closed right-of-way shall revert to the owners of the adjoining properties, 1311 Mechanical Drive (owned by CORPORATE DEVELOPERS LLC) and 1301 Mechanical Drive (owned by CORPORATE DEVELOPERS LLC), in accordance with N.C.G.S. §160A-299.

SECTION 4. A certified copy of the adopted order shall be filed with the Register of Deeds of Johnston County.

Duly adopted this 18th day of August 2025, while in regular Session.

_____

Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM:

_____
Jim Cauley
Town Attorney

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	PUBLIC HEARINGS

Item Title

Sale of Multifamily Housing Revenue Bonds Series 2025 for Shotwell Apartments

Presenter(s)

Robert McKie Jr., Finance Director

Suggested Action

Adoption of Resolution - Resolutions #2025-79 and #2025-80

Strategic Priorities Alignment

☐ Vibrant Downtown	☒ Desirable Amenities and Spaces	☒ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☒ Diversified Economic Development	☐ Community Outreach and Engagement	☐ Public Safety

Public Hearing: No

Applicable General Statute Number: G.S. 157-9

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey

☐ Special Mailing ☒ None Required

Updates Since Previous Presentation

Council adopted an Inducement Resolution for Shotwell Apartments on May 6, 2024, which granted preliminary approval to issue multifamily housing revenue bonds. Approvals have been obtained for the zoning and the site plan. Approval of the street closure/right-of-way abandonment is last approval required on the planning side.

Summary

The Town will act as a conduit debt issuer for the Shotwell Apartments affordable housing project, which means the Town is only facilitating theissuance and has no obligation to repay the revenue bonds. Hence, the issuance of the revenue bonds will not constitute a debt or a pledge of the faith and credit of the Town of Clayton. The revenue bonds will be payable solely from the revenues and other funds provided by Shotwell Apartments Limited Partnership (the "Borrower").

Background/History

The Town was approached by its Bond Counsel, McGuireWoods, to act as a conduit debt issuer for this affordable housing apartment project. Generally, affordable housing bonds are issued through a municipal or county housing authority, which does not exist in Johnston County. McGuireWoods is directly involved in the majority of affordable housing bonds in the State of North Carolina.

Recommendation

The Executive Team recommends adoption of the resolutions.

Funding Source

N/A

Cost

No

Corresponding Documentation

Clayton - Shotwell Apartments - TEFRA and Approval Resolution(207043528.2)

Clayton - Shotwell Apartments - Findings Resolution(207045628.2)

Clayton - Shotwell Apartments - TEFRA Notice(207050096.2)

Submitted By: Robert McKie, Jr., Finance Department

Reviewed By:

Robert McKie, Jr., Finance Director	Approved - Aug 11 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

Resolution# 2025-79

THE RESOLUTION AUTHORIZING THE ISSUANCE
AND SALE OF MULTIFAMILY HOUSING REVENUE BONDS
(SHOTWELL APARTMENTS), SERIES 2025

WHEREAS, the Town Council (the "Town Council") of the Town of Clayton, North Carolina (the "Town") met in Clayton, North Carolina at 6:00pm on the 18th day of August, 2025; and

WHEREAS, pursuant to Section 160D-1311(b) of the General Statutes of North Carolina, the Town is granted the power to exercise directly the powers of a housing authority organized pursuant to the North Carolina Housing Authorities Law, Article 1 of Chapter 157 of the General Statutes of North Carolina, as amended (the "Act"); and

WHEREAS, the Act in N.C.G.S. § 157-9 gives the Town, acting as a housing authority, the power "to provide for the construction, reconstruction, improvement, alteration or repair of any housing project" and "to borrow money upon its bonds, notes, debentures or other evidences of indebtedness and to secure the same by pledges of its revenues"; and

WHEREAS, Shotwell Apartments Limited Partnership, a Minnesota limited partnership (the "Borrower"), has requested that the Town assist it in financing a portion of the cost of the acquisition, construction and equipping of a 90-unit qualified residential rental project to be known as Shotwell Apartments and located at 1311 Mechanical Drive in the Town (the "Development") and the Town has agreed to do so; and

WHEREAS, the Town proposes to provide the financing for the Development by the issuance of its multifamily housing revenue bonds in an aggregate principal amount not to exceed $14,500,000 (the "Bonds"); and

WHEREAS, the Bonds will be issued pursuant to a Bond Financing Agreement (the "Financing Agreement"), among the Town, the Borrower and Bridgewater Investment Management, Inc., as bondholder (the "Initial Bondholder"); and

WHEREAS, it is anticipated that the Bonds will be privately placed with the Initial Bondholder during the construction of the Development, and privately placed with Cedar Rapids Bank and Trust Company (the "Permanent Lender") once the Development has reached stabilization; and

WHEREAS, the proceeds of the Bonds will be loaned to the Borrower pursuant to the Financing Agreement, for the purpose of paying a portion of the costs of the acquisition, construction and equipping of the Development; and

WHEREAS, Section 147(f) of the Internal Revenue Code of 1986, as amended (the "Code"), requires that any Bonds issued by the Town for the Development may only be issued after approval of the plan of financing by the Town following a public hearing with respect to such plan; and

WHEREAS, on this day the Town Council of the Town held a public hearing with respect to the issuance of the Bonds to finance, in part, the Development (as evidenced by the Certificate and Summary of Public Hearing attached hereto); and

WHEREAS, the Town proposes to authorize and, where applicable, execute the following instruments to carry out the transactions described above (the "Documents"):

(a) the Financing Agreement, together with the form of the Bonds attached thereto;

(b) the Promissory Note of the Borrower in favor of the Town (the "Borrower Note"), which will be assigned by the Town to the Initial Bondholder;

(c) the Regulatory Agreement and Declaration of Restrictive Covenants (the "Regulatory Agreement"), pursuant to which the Borrower will be required to operate the Development in accordance with Section 142(d) of the Code; and

WHEREAS, the Town will not in any event have any liability or responsibility whatsoever for the repayment of the Bonds, or for any costs or expenses incurred in connection with the issuance of the Bonds or the acquisition, construction, equipping or operation of the Development, and neither the faith and credit nor the taxing power of the Town is pledged to the payment of the principal of or interest on the Bonds;

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CLAYTON:

1. The Town hereby determines to provide financing to the Borrower for the acquisition, construction and equipping of the Development through the issuance of the Bonds pursuant to the North Carolina Housing Authorities Law, Article 1 of Chapter 157 of the General Statutes of North Carolina, as amended, and Section 160D-1311(b) of the General Statutes of North Carolina, as amended, and the loan of the proceeds thereof in accordance with the Financing Agreement.

2. The Town hereby authorizes the issuance and sale of the Bonds pursuant to and in accordance with the terms set forth in the Financing Agreement. The Bonds will bear interest at the rates and will mature and be redeemed in the years and amounts all as set forth in the Financing Agreement; provided, however, that the aggregate principal amount of the Bonds shall not exceed $14,500,000.

3. The issuance of the Bonds to finance a portion of the cost of the Development in an amount not to exceed $14,500,000 is hereby approved for purposes of Section 147(f) of the Code.

4. Each of the Mayor, the Town Manager, the Finance Director, the Town Clerk or his or her respective designee is hereby authorized and directed to execute and deliver the Documents to the other parties thereto. Each of the Mayor, the Town Manager, the Finance Director, the Town Clerk or his or her respective designee, is authorized and directed to execute and deliver such endorsements, assignments and other instruments as may be necessary to assign any security documents to the Initial Bondholder.

5. Each of the Mayor, the Town Manager, the Finance Director, the Town Clerk or their respective designees are hereby authorized and directed to execute and deliver the Bonds in the manner and subject to the conditions provided in the Financing Agreement, the Mayor or his or her designee is hereby authorized and directed to authenticate the Bonds, and to cause the Bonds so executed and authenticated to be delivered to or for the account of the Initial Bondholder, or any affiliate thereof, upon payment of the purchase price therefor.

6. The Documents and the Bonds shall be in substantially the forms submitted to this meeting, which are hereby approved, with such completions, omissions, insertions and changes as may be necessary or convenient to reflect the final terms of the Bonds, and as otherwise approved by the officers of the Town executing them after consultation with bond counsel and counsel to the Town, their

execution to constitute conclusive evidence of their approval of any such completions, omissions, insertions and changes.

7. Any authorization made hereby to the officers of the Town to execute a Document shall include authorization to each of the Mayor, Town Manager or Finance Director or their respective designees to execute the document, authorization to the Town Clerk or any Deputy Town Clerk to affix the seal of the Town to such document and attest such seal if necessary, and, where appropriate, to deliver it to the other parties thereto, all in the manner provided in the Documents.

8. Such officers are hereby authorized and directed to execute and deliver any and all other documents, agreements, instruments, and certificates in the name and on behalf of the Town and to take such other actions on behalf of the Town as may be necessary or desirable to the issuance of the Bonds, including but not limited to a nonarbitrage certificate, tax forms and other certificates. All other acts of the officers of the Town previously taken or to be taken that are in conformity with the purposes and intent of this resolution and in furtherance of the undertaking of the Development and the issuance and sale of the Bonds are hereby authorized, ratified, confirmed and approved.

9. This resolution shall take effect immediately upon adoption.

* * * * * * *

Council member _____ moved the passage of the foregoing resolution and Council member _____ seconded the motion, and the resolution was passed by the following vote:

Ayes:_____

Nays:_____

Not voting:_____

* * * * * * *

I, Michelle Snyder, Acting Town Clerk for the Town of Clayton, North Carolina, DO HEREBY CERTIFY that the foregoing is a true and complete copy of so much of the proceedings of the Town Council for the Town of Clayton, North Carolina, at a regular meeting duly called and held on August 18, 2025, as it relates in any way to the resolution hereinabove set forth, and that such proceedings are recorded in the minutes of the Town Council.

WITNESS my hand and the seal of the Town Council of the Town of Clayton, North Carolina, this 18th day of August, 2025.

(SEAL)

_____
Michelle Snyder, Acting Town Clerk
Town of Clayton, North Carolina

CERTIFICATE AND SUMMARY OF PUBLIC HEARING

The undersigned Town Clerk for the Town of Clayton, North Carolina hereby certifies:

1. Notice of a public hearing (the "Hearing") to be held on August 18, 2025, with respect to the issuance of Bonds by the Town of Clayton (the "Town") for the benefit of Shotwell Apartments Limited Partnership, or an affiliated or related entity was published on August 6, 2025, in the *Johnstonian News*.

2. The presiding officer of the Hearing was Mayor Jody McLeod.

3. The following is a list of the names and addresses of all persons who provided comments at the Hearing:

4. The following is a summary of the comments made at the Hearing:

WITNESS my hand and the corporate seal of the Town of Clayton, North Carolina, this the 18th day of August, 2025.

(SEAL)

_____
Michelle Snyder, Acting Town Clerk
Town of Clayton, North Carolina

Resolution #2025-80

RESOLUTION APPROVING FINANCING TEAM AND MAKING CERTAIN FINDINGS WITH RESPECT TO THE ISSUANCE OF MULTIFAMILY HOUSING REVENUE BONDS (SHOTWELL APARTMENTS), SERIES 2025

WHEREAS, Shotwell Apartments Limited Partnership, a Minnesota limited partnership, or an affiliated or related entity (the "Borrower"), has requested that the Town of Clayton, North Carolina (the "Town") assist it in financing a portion of the cost of the acquisition, construction and equipping of a 90-unit multifamily residential rental facility to be known as Shotwell Apartments and located in the Town of Clayton, North Carolina (the "Development"), and the Town has agreed to do so; and

WHEREAS, pursuant to Section 160D-1311(b) of the General Statutes of North Carolina, the Town is granted the power to exercise directly the powers of a housing authority organized pursuant to the North Carolina Housing Authorities Law, Article 1 of Chapter 157 of the General Statutes of North Carolina, as amended (the "Act"); and

WHEREAS, the Town finds that the financing of the Development through tax-exempt bonds will fulfill the purpose of the Act to provide for the construction, reconstruction, improvement, alteration or repair of any housing project, which is defined in the statute to include "loans and other programs of financial assistance to public or private developers of housing for persons of low income, or moderate income, or low and moderate income;" and

WHEREAS, the Town proposes to provide the financing for the Development by the issuance of its multifamily housing revenue bonds in an aggregate principal amount not to exceed $14,500,000 (the "Bonds"); and

WHEREAS, it is anticipated that the Bonds will be privately placed with Bridgewater Bank (the "Initial Bondholder") during the construction of the Development, and privately placed with Cedar Rapids Bank and Trust Company (the "Permanent Lender") once the Development has reached stabilization; and

WHEREAS, the North Carolina Local Government Commission has requested the Town to make certain findings with respect to the Bonds consistent with Section 159-153 of the North Carolina General Statutes; and

WHEREAS, the Borrower has requested that the Town approve its selection of the following financing team members for the issuance and sale of the Bonds, on the terms and at the fees set forth in the documents and financial information relating to the financing, providing for the issuance and sale by the Town and the purchase by the Initial Bondholder of the Bonds and in the financial information provided to the Town with respect to the Bonds:

Bond Counsel:	McGuireWoods LLP
Borrower's Counsel:	Stoel Rives LLP and Ellinger & Carr PLLC
Initial Bondholder:	Bridgewater Investment Management, Inc.
Initial Bondholder's Counsel:	Messerli & Kramer, P.A.
Permanent Lender:	Cedar Rapids Bank and Trust Company
Permanent Lender's Counsel:	Winthrop & Weinstine, P.A.
Tax Credit Investor:	Bridgewater Bank

Tax Credit Investor's Counsel: Clark Hill PLC

WHEREAS, based upon information and evidence received by the Town, it has determined to approve the Borrower's request;

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CLAYTON:

1. The above financing team for the issuance and sale of the Bonds by the Town is hereby authorized and approved.

2. The Town hereby finds that the financing is necessary and expedient to further the Town's purpose of promoting low and moderate income housing in the Town, and that the acquisition, construction and equipping of the Development proposed by the Borrower are necessary and sufficient to accomplish the Town's purposes with respect to the properties involved.

3. The Town hereby finds that the Borrower has demonstrated that the amount of debt to be incurred in connection with the Development and the fees to be paid in connection therewith are sufficient but not excessive for the purpose of acquiring, constructing and equipping the Development.

4. The Town hereby finds, based on (i) information provided by the Borrower, (ii) the commitment of the Initial Bondholder to purchase the Bonds and hold the Bonds during construction of the Development and the commitment of the Permanent Lender to purchase the Bonds upon stabilization, and (iii) the award of bond volume cap allocation by the North Carolina Federal Tax Reform Allocation Committee at the recommendation of the North Carolina Housing Finance Agency, that the Borrower has demonstrated that (a) it is financially responsible and capable of fulfilling its obligations to make loan repayments and other payments under the Bond Financing Agreement among the Town, the Borrower and the Initial Bondholder (the "Financing Agreement"), which will provide the funds to pay principal and interest on the Bonds, and (b) the Development will generate sufficient revenues to make loan repayments and other payments under the Financing Agreement, to operate, repair and maintain the Development at its own expense and to discharge such other responsibilities as may be imposed under the Financing Agreement. The Town further finds that adequate provision has been made for the payment of the principal of, redemption premium, if any, and interest on the Bonds, and the operation, repair and maintenance of the Development at the expense of the Borrower.

5. The Town hereby finds that the use of the proceeds of the Bonds for a loan to finance the costs of the Development and for the other purposes stated above will accomplish the public purposes set forth in the Act and hereby approves such use of proceeds.

6. This Resolution shall take effect immediately upon its passage.

* * * * * * *

Council member _____ moved the passage of the foregoing resolution and Council member _____ seconded the motion, and the resolution was passed by the following vote:

Ayes:_____

Nays:_____

Not voting:_____

* * * * * * *

I, Michelle Snyder, Acting Town Clerk for the Town of Clayton, North Carolina, DO HEREBY CERTIFY that the foregoing is a true and complete copy of so much of the proceedings of the Town Council for the Town of Clayton, North Carolina, at a regular meeting duly called and held on August 18, 2025, as it relates in any way to the resolution hereinabove set forth, and that such proceedings are recorded in the minutes of the Town Council.

WITNESS my hand and the seal of the Town Council of the Town of Clayton, North Carolina, this 18th day of August, 2025.

(SEAL)

_____

Michelle Snyder, Acting Town Clerk
Town of Clayton, North Carolina

NOTICE OF PUBLIC HEARING ON PROPOSED MULTIFAMILY
HOUSING REVENUE BONDS FINANCING BY
THE TOWN OF CLAYTON, NORTH CAROLINA

Notice is hereby given that the Town Council of the Town of Clayton (the "Town") will hold a public hearing on its proposed plan to issue multifamily housing revenue bonds in an amount up to $14,500,000 (the "Bonds") for the financing of the acquisition, construction and equipping by Shotwell Apartments Limited Partnership, a Minnesota limited partnership, or an affiliated or related entity (the "Borrower"), of a qualified residential rental project (as defined in Section 142(d) of the Internal Revenue Code of 1986, as amended) to be known as Shotwell Apartments (the "Development"). The Development will consist of 90 units and will be located at approximately 1316 Mechanical Drive in the Town of Clayton, North Carolina. The Development will be owned or operated by the Borrower.

The Bonds, when and if issued by the Town, will be issued pursuant to Article 1 of Chapter 157 and Section 160D-1311(b) of the General Statutes of North Carolina and shall not be a debt of the State of North Carolina (the "State"), the Town, or any political subdivision thereof and none of the State, the Town or any political subdivision thereof shall be liable thereon, nor in any event shall such Bonds be payable out of any funds or properties other than those of the Town derived solely from payments made by the Borrower.

The public hearing, which may be continued or adjourned, will be held on August 18, 2025, at 6:00 p.m. (or as soon thereafter as the hearing is held) in the Council Chambers of the Town Hall, 111 E. Second Street, Clayton, North Carolina 27520. Any person interested in the issuance of the Bonds or the Development may appear and be heard at the public hearing. Any person wishing to comment in writing on the Development or the issuance of the Bonds should do so no later than August 18, 2025, by mailing such comments to Heidi Holland, Town Clerk, Post Office Box 879, Clayton North Carolina 27528.

TOWN OF CLAYTON, NORTH CAROLINA

By:_____
Michelle Snyder, Acting Town Clerk

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	PUBLIC HEARINGS

Item Title

2024-77-ANX: Coulan Company Annexation Public Hearing

Presenter(s)

Robert Tate, AICP, Senior Planner

Suggested Action

Adoption of Ordinance - Ordinance #2025-08-01

Strategic Priorities Alignment

☐ Vibrant Downtown	☐ Desirable Amenities and Spaces	☐ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☒ Diversified Economic Development	☐ Community Outreach and Engagement	☐ Public Safety

Public Hearing: Yes - Legislative

Applicable General Statute Number: §160A-58.1

If Approved, Will Document Require Recordation? Yes

Does This Item Require a Communication Plan?

- ☒ Public Hearing (Required by GS)
- ☒ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey

☐ Special Mailing ☐ None Required

Summary

Applicant is requesting non-contiguous annexation of 3733 Powhatan Road, which is comprised of approximately 5.23 acres (including ROW).

Background/History

This annexation petition is for 3733 Powhatan Road. The requested annexation is non-contiguous but located within the Town of Clayton ETJ. The existing land use on the subject site is vacant and wooded. The applicant has a concurrent Conditional Rezoning request in review for the parcel (2024-140-CZM). The applicant is requesting annexation into town limits to receive services for future development. The area to be annexed is approximately 5.23 acres and is identified as Johnston County Tax ID 05I05014A.

Recommendation

Approval

Funding Source

N/A

Cost

N/A

Corresponding Documentation

0_Staff Report_Coulan Company ANX_08052025

1_Staff Report Maps_Coulan ANX_08052025

2_AnnexationApplication_Coulan ANX_07232025

3_LegalDescription_Coulan ANX_07232025

4_Plat_Coulan ANX_07232025

5_Newspaper Ad Affadavit_08052025

6_Ordinance_Coulan ANX_08052025

Meeting Timeline

July 21st: Resolution to authorize Town Clerk to investigate sufficiency
August 4th: Resolution to set the Public Hearing
August 18th: Town Council Public Hearing

Submitted By: Robert Tate, Planning

Reviewed By:
Haley Downey, Assistant Planning Approved - Aug 07 2025

Director	
Conrad Olmedo, Planning Director	Approved - Aug 07 2025
Courtney Tanner, Deputy Town Manager	Approved - Aug 13 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720
planning@townofclaytonnc.org

Town Council Sufficiency Check: July 21, 2025
Town Council Scheduling of the Public Hearing: August 4, 2025
Town Council Public Hearing: August 18, 2025

STAFF REPORT	
Project Number:	2024-77-ANX
Project Name:	Coulan Company, LLC Annexation
Property Pin #:	167700-59-3446
Location:	Outside of Town limits, within the ETJ, located on the easterly side of Powhatan Rd, north of Best Wood Dr and south of the North Carolina Railroad addressed as 3733 Powhatan Road and identified as Johnston County Tax ID 05I05014A.
Applicant:	Harold B. Kivlan, IV
Property Owner:	Coulan Company, LLC
Public Noticing Dates:	Newspaper Ad Published on August 6, 2025, and August 13, 2025
Request:	Consideration of a request for a non-contiguous annexation petition of approximately 5.23 acres of land currently located in the Town's ETJ to receive Town services.
PROJECT OVERVIEW	
Acreage	5.23
Existing Zoning	Heavy Industrial (HID)
Existing Use	Multi-tenant non-residential building
Future Land Use Designation	Employment Center

STAFF ANALYSIS

This annexation petition for a property located at 3733 Powhatan Road is a non-contiguous request inside of the Town of Clayton's ETJ. The existing land use of the subject site is vacant and wooded. The applicant is requesting annexation to receive Town services for future development. Currently the Claytex Fire District does not serve the site; if approved, this annexation will expand the service area.

A Conditional Rezoning (FluroFusion, 2024-140-CZM) of the subject site is running concurrently with this request. The associated Conditional Rezoning request seeks to

rezone the subject parcel from Heavy Industrial (HID) to Conditional Industrial (CZI).

ADJACENT ZONING, LAND USES, AND FUTURE LAND USES			
Direction	**Zoning**	**Existing Land Use(s)**	**Future Land Use**
North	Light-Industrial (LID)	North Carolina Railroad and Laboratories	Employment Center
South	Light-Industrial (LID)	Office and Vacant	Employment Center
East	Light-Industrial (LID)	Vacant, with a Telecommunication Facility	Employment Center
West	Light-Industrial (LID)	Major Utility	Employment Center

TOWN COUNCIL CONSIDERATIONS

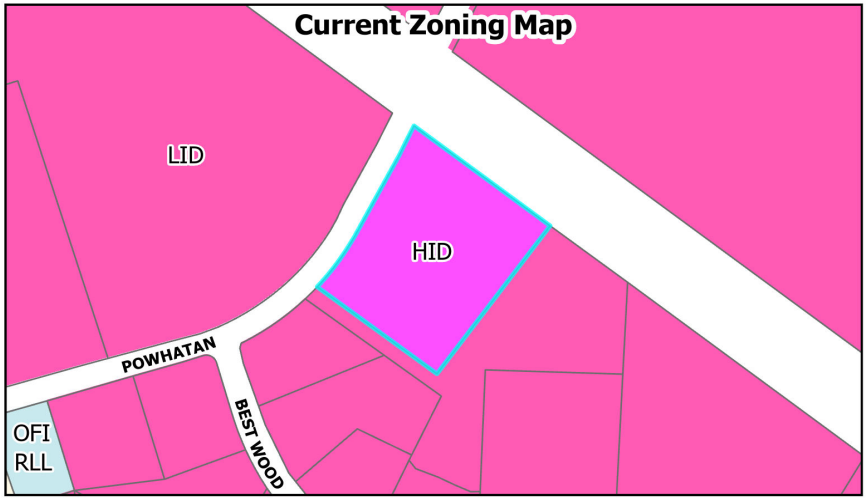
The Town Council shall make the final decision regarding Annexation requests.

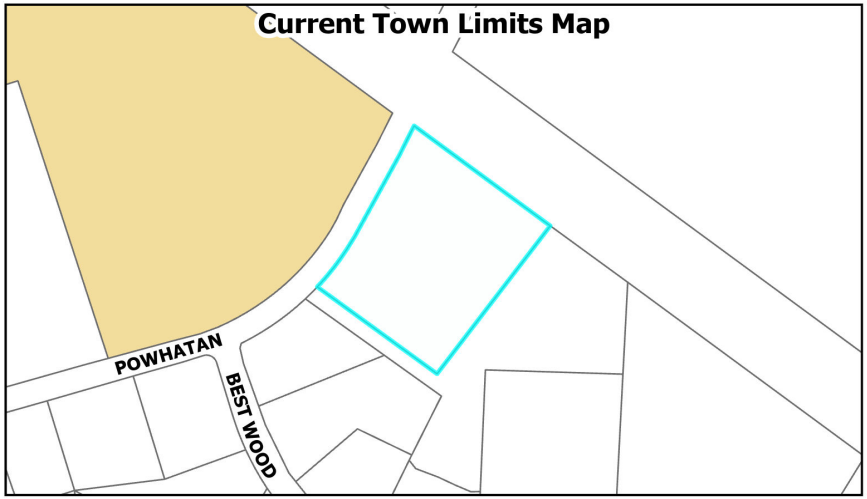
STAFF RECOMMENDATION

The Town of Clayton Technical Review Committee has reviewed the application and associated materials. The Planning Department is recommending ***approval*** of the annexation request.

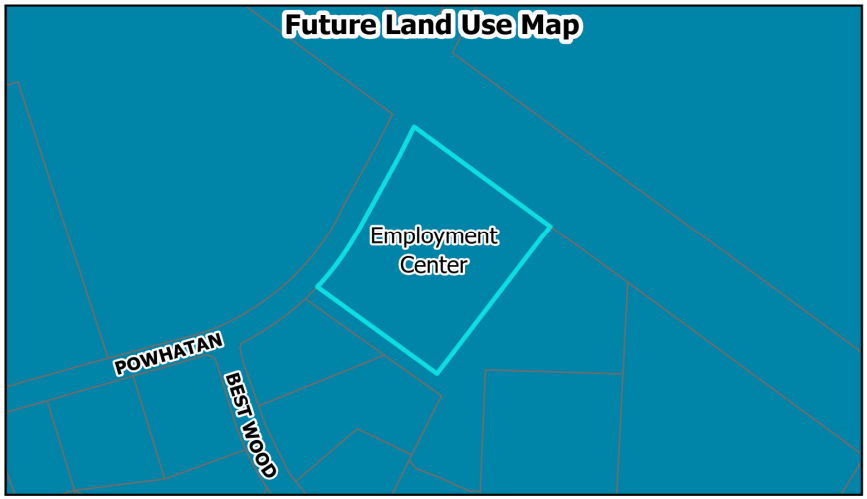
ATTACHMENTS

1. Staff Report Maps
2. Application
3. Legal Description
4. Annexation Plat
5. Newspaper Ad Affidavit
6. Annexation Ordinance









Request: Annexation Petition, Non-Contiguous
Project Name: Coulan Company, LLC
Project Number: 2024-77-ANX

Applicant: Harold B. Kivlan, IV
Property Owner: Coulan Company, LLC
Tag#: 05I05014A

Site Location

Staff Report Map
July 30, 2025

N

0 250 500 1,000 Feet

Disclaimer: Parcel Boundaries are shown for reference only. The Town of Clayton assumes no legal responsibility for this information.

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

PETITION FOR VOLUNTARY ANNEXATION

VOLUNTARY ANNEXATION: Upon receipt of a valid petition signed by all the owners of real property in the area described therein, the Town may annex an area either contiguous or not contiguous to its primary corporate limits when the area meets the standards set out under North Carolina General Statutes 160A-31 and 160A-58.1.

Applications are accepted on a rolling basis and can be submitted to the Town of Clayton Planning Department.

Application Review Fee: $300

PROCESS:

Review by Staff: The Planning, Engineering and Public Works Departments review the annexation submission. Comments will be sent to the applicant. There is an initial 15 business day review cycle with 3 Council hearing meetings. Expect an estimated minimum of 2-3 months for review/approval.

Annexation Plat and Legal Description (Metes & Bounds) Submission: The plat and a legal description (metes and bounds) must be submitted with the application and review fee.

Is the proposed land for annexation located outside the Claytex Fire District? _X_ Yes ____ No

**If the proposed land for annexation is located outside of the Claytex Fire District, the Fire District in which the land is located must be notified by the Town, and a payment from the applicant to the Town covering the proportional share of Fire District Debt of the land (as determined by the Fire District) will be required to be made. This process will increase the timeline for approval of these annexations.*

Legal Advertisement: A legal advertisement will be published no more than 25 days and no less than 10 days prior to the date of the public hearing.

Town Council Meeting: The Town Council will pass a resolution directing the Town Clerk to investigate the annexation petition. The Town Clerk will present to the Town Council a Certificate of Sufficiency indicating that the annexation petition is complete. A resolution setting the date of the public hearing is then approved. These first two actions generally occur during the Consent Agenda item on 2 consecutive Town Council meetings.

Public Hearing/Town Council Meeting: The Town Council will either adopt or deny an ordinance to extend the corporate limits of the Town of Clayton. The Public Hearing is generally held during the 3rd Council meeting, following approval of the Certificated Sufficiency and Resolution setting the Public Hearing date.

Recordation: If the annexation is approved by the Town Council, the applicant is required to submit one (1) Mylar annexation plat to the Planning Department for signature. The Annexation Plat shall be recorded at the appropriate county Register of Deeds.

Revised July 2023

Name of Project: The Coulan Company, LLC **Date:** 8-12-2024

Applicant Name: Harold B. Kivlan, IV **Phone:** 703-980-1448 **Email:** brad@fluorofusion.com

Petition for Voluntary Annexation Application

1. **Application Type:** ☐ Individual ☐ Corporation ■ LLC ☐ Partnership

2. **The proposed annexation will be:** ☐ Contiguous Annexation ■ Non-Contiguous Annexation

Property Information

To the Town Council of the Town of Clayton, North Carolina:

1. I/We the undersigned owner(s)* of real property respectfully request that the area described in Paragraph 2 below be annexed to the Town of Clayton, North Carolina.

   *If the owner of real property is a corporation or religious entity, attach a copy of the articles of incorporation describing who is/are authorized to sign the petition.

2. The area to be annexed is ☐ contiguous, ■ non-contiguous to the Town of Clayton, North Carolina and the boundaries of such territory are as provided in the boundary plat 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.

4. Attached is a statement of the schedule for full development of the property to be annexed, which includes the type, number, and estimated value of planned improvements, if applicable.

   Total Acreage to be annexed: 5.23 Existing Housing Units: 0

   Population of acreage to be annexed: 0 Fire District: Wilsons Mills

   Existing Zoning District*: HID Proposed Town Zoning District*: HID

   County Recorded Plat Book and Page #: NA

   Reason for petitioner to annex: X Receive Town Services ____Other (please specify): _____

5. **I/We** acknowledge that any zoning vested rights acquired pursuant to G.S. 160A-385.1 or G.S. 153A-344.1 must be declared and identified on this petition. I/We further acknowledge that failure to declare such rights on this petition shall result in the termination of vested rights previously acquired for the property. (If zoning vested rights are claimed, indicate on the following page, and attach proof.)

FOR OFFICE USE ONLY

Date Received:_____ Amount Paid:_____ Petition Number: _____

Revised July 2023

This page must be notarized prior to submitting to the Town for review

Complete ONLY if applying for an individual annexation and if property is owned by individual (s):

_____ Please Print

_____ Signature

_____ Please Print

_____ Signature

Complete ONLY if applying for a Corporation Annexation:

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 ____ day of _____, 20____.

Corporate Name: _____

SEAL

By: _____ (Signature)

Attest: _____ Secretary (Signature)

Complete ONLY if applying for a Limited Liability Company Annexation:

In witness whereof, The Coulan Company, LLC a limited liability company, caused this instrument to be executed in its name by a member/manager pursuant to authority duly given, this 12th day of August, 20 24.

Name of Limited Liability Company: The Coulan Company, LLC

By: _____ Signature of Member/Manager

Complete ONLY if applying for a Partnership Annexation:

In witness whereof, _____ a partnership, caused this instrument to be executed in its name by a member/manager pursuant to authority duly given, this ____ day of _____, 20____.

Name of Partnership: _____

By: _____ Signature of General Partner

By: _____

By: _____ Signature of General Partner

By: _____

STATE OF NORTH CAROLINA
COUNTY OF JOHNSTON

Sworn and subscribed before me, Harold B. Kivlan, IV, a Notary Public for the above State and County, this 12th day of, August, 20 24.

SEAL

Steven S. Sanderson
Notary Public
Wake County, NC
My Commission Expires 11-3-27

_____ Notary Public

My Commission Expires: 11-3-2027

Revised July 2023

Lying and being in Clayton Township, Johnston County, North Carolina and being more particularly described as follows:
Beginning at the approximate centerline intersection of Powhatan Road, NCSR 1901, and the North Carolina Railroad Company right-of-way, said point being the place and point of beginning;
Thence leaving the Powhatan Road centerline and following the center of the North Carolina Railroad Company right-of-way S53˚09'15"E 459.51 feet to an existing iron pipe;
Thence leaving the center of the North Carolina Railroad right-of-way S36˚47'45"W 99.64 feet to an existing iron pipe;
Thence S36˚47'45"W 449.17 feet to an existing rebar;
Thence N53˚25'18"W 355.26 feet to an existing iron pipe on the eastern right-of-way of Powhatan Road;
Thence N53˚25'18"W 32.59 feet to a point in the approximate centerline of Powhatan Road;
Thence with the approximate centerline of Powhatan Road along a curve having a Radius of 693.25 feet, an Arc Length of 189.70 feet, and a chord bearing and distance of N34˚16'59"E 189.11 feet to a point;
Thence N26˚51'17"E 367.41 feet to the place and point of beginning and containing 5.23 acres more or less.

STATE OF NORTH CAROLINA _____ COUNTY

Filed for Registration at _____ M.

_____ 20___ in the

Register of Deeds Office

Recorded in Book _____ Page _____

BY _____

REGISTER OF DEEDS

STATE OF NORTH CAROLINA

COUNTY OF _____

I, _____, Review Officer of _____ County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

REVIEW OFFICER DATE:

STATE OF NORTH CAROLINA Johnston COUNTY

I, Thomas M. Hall certify that this plat was drawn under my supervision from an actual survey made under my supervision, deed description recorded in Book 6442, page 971, that the boundaries not surveyed are clearly indicated as drawn from information found in book page N/A; that the ratio of precision or positional accuracy as calculated is [redacted]

Witness my original signature, license number and seal this 22nd day of April A.D., 2025.

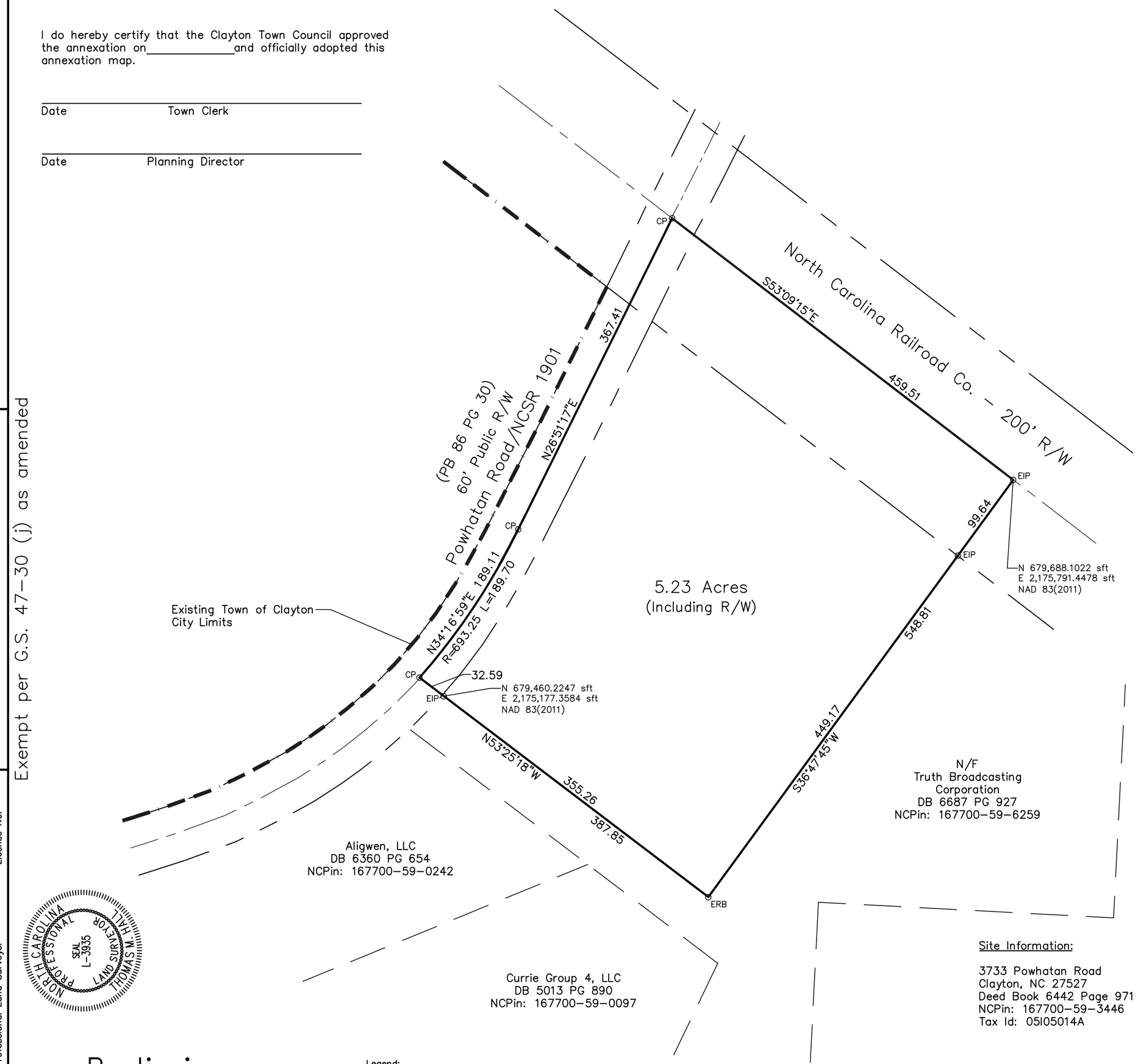
Professional Land Surveyor L-3935 License No.

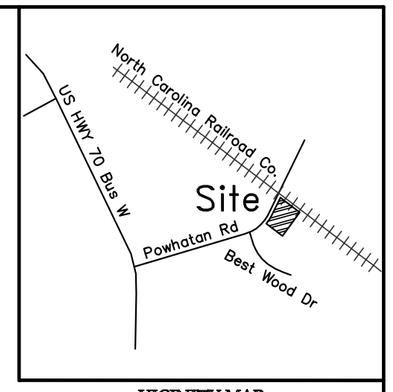
I do hereby certify that the Clayton Town Council approved the annexation on _____ and officially adopted this annexation map.

Date Town Clerk

Date Planning Director

Exempt per G.S. 47-30 (j) as amended





VICINITY MAP
Not to Scale

REFERENCE:
–PB 56 PG 350
PB 86 PG 30
–DB 6442 PG 971
–Unrecorded map by James R. Wilson, PLS entitled "The Coulan Company, LLC" dated 3/5/23

Notes:

No NCGS monuments found within 2000 feet. Grid control established by using the North Carolina GNSS Real Time Network.

Iron pipe, rebar, or nails at all corners unless noted otherwise.

Zoning: HID

This map does not meet GS47-30 as amended nor was it intended to. This map is not for the conveyance of property. The sole purpose of the map is for the annexation of property and was drawn from a partial field survey and deeds.

The annexation area graphically appears not to be in a special flood hazard area as determined by NC Floodplain Mapping.
Map No. 3720167700 K,
Effective date June 20, 2018.

This survey is of an existing parcel or parcels of land or one or more existing easements and does not create a new street or change an existing street.

04/22/25
Professional Land Surveyor Date
L-3935

NORTH CAROLINA PROFESSIONAL SEAL L-3935 LAND SURVEYOR THOMAS M. HALL

NORTH CAROLINA PROFESSIONAL SEAL L-3935 LAND SURVEYOR THOMAS M. HALL

Site Information:

3733 Powhatan Road
Clayton, NC 27527
Deed Book 6442 Page 971
NCPin: 167700-59-3446
Tax Id: 05I05014A

Owner:

Coulan Company, LLC
P.O. Box 1238
Clayton, NC 27528
Deed Book 6442 Page 971
NCPin: 167700-59-3446
Tax Id: 05I05014A

Preliminary
For Review Only
AREA BY COORDINATE COMPUTATION

80 40 0 80 160
GRAPHIC SCALE
All Distances Are Horizontal Ground
Unless Noted Otherwise

Legend:
ERB – Existing Rebar
EIP – Existing Iron Pipe
CP – Calculated Point
PB – Plat Book
DB – Deed Book
PG – Page
Rd – Road
St – Street
sft – Survey Feet
NAD 83(2001) – North American Datum 1983(2001)
N/F – Now-or-Formerly
R/W – Right-of-Way
NCSR – North Carolina State Road
NCPin – North Carolina Parcel Identification Number

Hall Land Surveying, Inc.
1899 Steven's Chapel Road
Smithfield, NC 27577
(919) 868-8132
Firm# C-3441

Satellite Annexation Map For The Town of Clayton:

Coulan Company, LLC
(Powhatan Road Property)

TOWNSHIP	COUNTY	STATE
Clayton	Johnston	NC
SURVEYED BY	DRAWN BY	
TMH/CFF	TMH	
DATE	SCALE	DRAWING NO.
04/22/25	1"=80'	HLS23-0035

Column

INTERIM AD DRAFT

This is the proof of your ad scheduled to run in **Johnstonian News - (Johnston County)** on the dates indicated below. If changes are needed, please contact us prior to deadline at **(919) 284-2295**. Please note: when you submit a legal document, you are responsible for ensuring payment for the associated fees or charges are paid.

Notice ID: tpmZ0siPqUvfkVzaVMW5 | **Proof Updated: Jul. 30, 2025 at 10:08am EDT**
Notice Name: 2025-10-CZM,2025-23-CZM,2025-140-CZM,Coulon

See Proof on Next Page

This is not an invoice. Below is an estimated price, and it is subject to change. You will receive an invoice with the final price upon invoice creation by the publisher.

FILER	FILING FOR
Sam Johnson-Phillips sphillips@townofclaytonnc.org (919) 553-5002	Johnstonian News - (Johnston County)

Columns Wide: 1 **Ad Class:** Legals

08/06/2025: Other	168.00
08/13/2025: Other	168.00

Subtotal	$336.00
Tax %	0
Processing Fee	$38.60
Total	**$374.60**

PUBLIC NOTICE

The Clayton Town Council will hold Public Hearings at 6:00 PM on Monday August 18, 2025, at Town Hall, 111 E. Second Street, regarding the applications listed and described below. These public hearings have been scheduled and will be heard in accordance with the requirements of NCGS.

· 2025-10-CZM Clayton Mixed Use (Dominium) Conditional Rezoning: Request to rezone one parcel (3.3 acres) from Corridor Commercial (CRM) to Conditional Zoning Commercial (CZC) district. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The applicant is proposing to develop a 167-unit senior living facility and up to 6,400 SF of commercial development. The parcel is located off Pritchard Road, Waterfield Drive, Swann Trail, and Collinsworth Road. PIN # 177000-18-0722.

· 2025-23-CZM Heavner Property Conditional Rezoning: Request to rezone two parcels (74.08 acres) from Corridor Commercial (CRM) and Residential Large Lot (RLL) to Conditional Zoning Commercial (CZC) District. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The applicant proposes up to 51.60 acres of the site to include commercial development, with 15.90 additional acres consisting of multi-family development. The parcels are located off Clayton Blvd, east of Financial Drive, Town Centre Blvd, and Scholar Drive. PIN #s 165909-05-8421 & 165909-15-8400.

· 2025-140-CZM FluroFusion Conditional Rezoning: Request to rezone one parcel (3.88 acres) of land from Heavy Industrial (HID) to Conditional Industrial (CZI) District. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The request includes allowance of Heavy Manufacturing with a 100-foot distillation tower. The parcel is located on Powhatan Road between NC Railroad Company and Best Wood Dr. PIN # 167700-59-3446.

· 2024-77-ANX Coulon Company Annexation: Request of a non-contiguous annexation to annex approximately 5.23 acres of land in the Town's ETJ into the Town's Corporate Limits. The property is located at 3733 Powhatan Road and described as follows: Beginning at the approximate centerline intersection of Powhatan Road, NCSR 1901, and the North Carolina Railroad Company right-of-way, said point being the place and point of beginning; Thence leaving the Powhatan Road centerline and following the center of the North Carolina Railroad Company right-of-way S53°09'15"E459.51 feet to an existing iron pipe; Thence leaving the center of the North Carolina Railroad right-of-way S36°47'45"W 99.64 feet to an existing iron pipe; Thence S36°47'45"W 449.17 feet to an existing rebar; Thence N53°25'18"W 355.26 feet to an existing iron pipe on the eastern right-of way of Powhatan Road; Thence N53°25'18"W 32.59 feet to a point in the approximate centerline of Powhatan Road; Thence with the approximate centerline of Powhatan Road along a curve having a Radius of 693.25 feet, an Arc Length of 189.70 feet, and a chord bearing and distance of N34°16'59"E 189.11 feet to a point; Thence N26°51'17"E367.41 feet to the place and point of beginning and containing 5.23 acres more or less. PIN # 167700-59-3446.

These are open meetings, and the public is invited to attend. To obtain more information regarding these applications, members of the public may contact the Planning Department at 919-553-5002 or email at planning@townofclaytonnc.org .

Heidi Holland, CMC, NCCMC
Town Clerk
Town of Clayton
919-553-5002 ext. 5004

The Johnstonian Newspaper

Please advertise on the following dates:

August 6, 2025
August 13, 2025

Affidavit of publication required.
The Johnstonian
August 6, 13, 2025

TOWN OF CLAYTON
ORDINANCE TO EXPAND THE CORPORATE LIMITS
2024-77-ANX COULAN COMPANY ANNEXATION

WHEREAS, the Clayton Town Council has been petitioned under NCGS §160A-58.1. to annex the area described below; and

WHEREAS, the Clayton Town Council has by resolution directed the Town Clerk to investigate the sufficiency of the petition; and

WHEREAS, the Town Clerk has certified the sufficiency of the petition and a public hearing on the question of this annexation was held at Clayton Town Hall, 111 E Second Street at 6:00 PM on Monday, August 18, 2025, after due notice by publication in the Johnstonian on August 6, 2025, and August 13, 2025; and

WHEREAS, the Clayton Town Council finds that the petition meets the requirements of NCGS §160A-58.1.

NOW THEREFORE, BE IT ORDAINED by the Clayton Town Council of the Town of Clayton, North Carolina that:

SECTION 1 By virtue of the authority granted by §NCGS 160A-58.1., the following described territory is hereby annexed and made part of the Town of Clayton as of August 18, 2025:

> Lying and being in Clayton Township, Johnston County, North Carolina and being more particularly described as follows: Beginning at the approximate centerline intersection of Powhatan Road, NCSR 1901, and the North Carolina Railroad Company right-of-way, said point being the place and point of beginning; Thence leaving the Powhatan Road centerline and following the center of the North Carolina Railroad Company right-of-way S53°09'15"E459.51 feet to an existing iron pipe; Thence leaving the center of the North Carolina Railroad right-of-way S36°4 7'45"W 99.64 feet to an existing iron pipe; Thence S36°47'45"W 449.17 feet to an existing rebar; Thence N53°25'18"W 355.26 feet to an existing iron pipe on the eastern right-of way of Powhatan Road; Thence N53°25'18"W 32.59 feet to a point in the approximate centerline of Powhatan Road; Thence with the approximate centerline of Powhatan Road along a curve having a Radius of 693.25 feet, an Arc Length of 189.70 feet, and a chord

bearing and distance of N34°16'59"E 189.11 feet to a point; Thence N26°51'17"E367.41 feet to the place and point of beginning and containing 5.23 acres more or less.

Pin #:	167700-59-3446
Tax #:	05I05014A
Location:	3733 Powhatan Road
Acreage:	5.23 acres
Owner:	Coulan Company, LLC
ROW:	As described in the aforementioned legal description and associated Annexation plat

SECTION 2 Upon and after August 18th, 2025, the above-described territory and its citizens and property shall be subject to all debts, laws, ordinances, and regulations in force in the Town of Clayton and shall be entitled to the same privileges and benefits as other parts of the Town of Clayton. Said territory shall be subject to municipal taxes in according to §NCGS 160A-58.1.

SECTION 3 The Mayor of the Town of Clayton shall cause to be recorded in the office of the Register of Deeds of Johnston County and in the office of the Secretary of State at Raleigh, North Carolina, an accurate map of the annexed territory, described in SECTION 1 above, together with a duly certified copy of the ordinance. Such a map shall also be delivered to the County Board of Elections, as required by NCGS §163-288.1.

ADOPTED this 18th day of August 2025.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM:

_____
Jim Cauley
Town Attorney

Ordinance #2025-08-01

NORTH CAROLINA
JOHNSTON COUNTY

This the _____ day of _____, 2025, personally appeared before me Michelle Snyder, Acting Town Clerk of the Town of Clayton, who, being duly sworn by me, says that she knows the common seal of the Town of Clayton and is acquainted with Jody L. McLeod, who is the Mayor and presiding member of said municipal corporation; and that she saw the said Mayor sign the foregoing instrument and saw the said common seal of said municipal corporation affixed to said instrument by said Mayor, and that she, the said Michelle Snyder, signed her name in attestation of said instrument in the presence of said Mayor.

Witness my hand and notarial seal, this the day and year first above written.

_____
Notary Public - Signature

_____
Notary Public – Printed Name

Commission Expires:
_____

County of Commission:
_____

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	PUBLIC HEARINGS

Item Title

2024-140-CZM FluoroFusion Conditional Rezoning

Presenter(s)

Audrey Duchesne, Senior Planner

Suggested Action

Adoption of Ordinance - Ordinance #2025-08-04 and Statement of Consistency

Strategic Priorities Alignment

☐ Vibrant Downtown	☐ Desirable Amenities and Spaces	☐ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☒ Diversified Economic Development	☐ Community Outreach and Engagement	☐ Public Safety

Public Hearing: Yes - Legislative

Applicable General Statute Number: §160D-703(b)

If Approved, Will Document Require Recordation? Yes

Does This Item Require a Communication Plan?

- ☒ Public Hearing (Required by GS)
- ☒ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey

☒ Special Mailing ☐ None Required

Other/Special Instructions: Signs posted by the deadline of August 8, 2025

Letters mailed by the deadline of August 8, 2025

Newspaper published August 6th and August 13th

Summary

The applicant is requesting a Conditional Rezoning of 3.88 acres from Heavy Industrial (HID) to Conditional Industrial (CZI). This is a Type 3 Conditional Rezoning and is accompanied by a Concept Plan. The Concept Plan includes a deviation from the maximum permitted height, per UDO Section 3.2.6, to allow for a 100-foot-tall distillation tower. The proposed use is Heavy Manufacturing.

Background/History

This parcel was previously subject to a conventional rezoning that changed the zoning district from RLL to HID (Ordinance #2024-03-01). The conventional rezoning was approved in 2024. The use proposed is permitted in the existing zoning district, but the applicant is requesting a Conditional Rezoning now to allow for the installation of a 100' distillation tower, which exceeds the maximum height allowance of 60'.

This Conditional Rezoning application was heard by the Planning Board at their regularly scheduled meeting on July 28, 2025. The Board voted 5 to 1 to recommend approval of the application with conditions to the Town Council.

Recommendation

Staff is recommending approval with conditions of the rezoning request.

Funding Source

N/A

Cost

N/A

Corresponding Documentation

00_Staff Report_FluoroFusion CZM_08182025

01_Staff Report Maps_FluoroFusion CZM_08182025

02_Application_FluoroFusion CZM_08182025

03_Neighborhood Meeting Packet_FluoroFusion CZM_08182025

04_Adj Property Notice_FluoroFusion CZM_08182025

05_Exhibit A- Concept Plan_FluoroFusion CZM_07112025

06_Conditions of Approval_FluoroFusion CZM_08182025

07_AM Tower Protection Certificate of Compliance_08182025

08_Consistency Statement Sheet_FluoroFusion CZM_07112025

09_Newspaper Ad Affadavit_Town Council_08182025

10_Ordinance_FluoroFusion CZM_08182025

Meeting Timeline

July 28, 2025: Planning Board
August 18, 2025: Town Council Public Hearing

Submitted By: Audrey Duchesne, Planning

Reviewed By:

Haley Downey, Assistant Planning Director	Approved - Aug 07 2025
Conrad Olmedo, Planning Director	Approved - Aug 07 2025
Courtney Tanner, Deputy Town Manager	Approved - Aug 13 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720
planning@townofclaytonnc.org

Planning Board Public Meeting: July 28, 2025
Town Council Public Hearing: August 18, 2025

STAFF REPORT	
Project Number:	2024-140-CZM
Project Name:	FluoroFusion Conditional Rezoning
Property Pin #:	167700-59-3446
Location:	Outside of Town Limit located on the easterly side of Powhatan Rd, north of Best Wood Dr and south of the North Carolina Railroad addressed as 3733 Powhatan Road and identified as Johnston County Tax ID 05I05014A.
Applicant:	REAL ENGINEERING INC. Danny L Howell, Jr.
Property Owner:	COULAN COMPANY, LLC
Public Noticing Dates:	Sign Posted by deadline of August 8, 2025 Surrounding Property Notice Mailed by deadline of August 8, 2025 Newspaper Ad Published August 6, 2025 and August 13, 2025
Request:	Request to rezone approximatively 3.88 acres of land from the Heavy Industrial (HID) to the Conditional Industrial (CZI) zoning district. This is a Type 3 Conditional Rezoning with a Concept Plan. The applicant is proposing the use of Heavy Manufacturing. The Concept Plan includes two buildings a 100-foot distillation tower, which exceeds the maximum permitted height of 60 feet in the district, as specified in UDO Section 3.2.6.

PROJECT OVERVIEW

The applicant is requesting a Conditional Rezoning of approximately 3.88 acres from Heavy Industrial (HID) to Conditional Industrial (CZI). The proposed project includes the development of two buildings, to be constructed in two phases and a detached 100' distillation tower. The first phase will have a 2-story building that will be approximately 10,134 gross square feet (first floor of 6,344 square feet and a second floor with 3,790 square feet). This first phase will also include the construction of the 100-foot high distillation tower. The current zoning allows a maximum 60-foot height and the applicant is requesting to deviate from this maximum height allowance as part of this conditional rezoning request (see conditions of approval). The second phase will have a 28,050 gross square foot building, which may require

separate approval for impacts to a non-jurisdictional wetland. The proposed use for the entire site will be Heavy Manufacturing, as defined in UDO Section 4.3.82. If approved, this Type 3 Conditional Rezoning, associated Conditions of Approval, and Concept Plan will run with the land.

At this time, the applicant is proposing one stormwater control measure. The final location and design will be subject to review and approval during the Site Plan and Construction Drawing phase. A second stormwater control measure may be required based on the results of final design of the site. Internal circulation patterns are included in the concept plan. These are general in nature, and final circulation will be designed at Site Plan and Construction Drawing review. The proposed site area will be reduced to account for right-of-way dedication along Powhatan Road, in accordance with the Town of Clayton Comprehensive Growth Plan 2045 Typical Section 3C. This dedication is totaling .10 acres and is illustrated in the Concept Plan (Exhibit A of the attachments). Any site improvements within the dedicated right-of-way will require NCDOT approval.

A Trip Generation Table is included in the Concept Plan, estimating that the completed development will generate approximately 97 daily trips (ingress and egress) for both phases at full build out.

Project History

This property was previously rezoned to Heavy Industrial (HID) in 2024, via a Conventional Rezoning process. That application was submitted for review in 2023 and was reviewed under the Unified Development Code in place at the time of submission. At that time, the UDC allowed structures up to a height of 100' in the HID district. The new UDO was adopted in January 2024, and following conventional rezoning approval in March 2024. In the UDO, structures are limited to a height of 60' and this may only be deviated from via a Conditional Rezoning process. Upon discussions with the applicant of future site plan submission, the applicant was directed to pursue a Conditional Rezoning to request the height allowance of 100' for the proposed distillation tower. The use of Heavy Manufacturing is permitted by-right in the property's existing zoning designation of HID.

Additionally, the property is currently under review of 2024-77-ANX Coulan Company Annexation, which is a non-contiguous annexation requested for the parcel to receive Town services for future development. This application is scheduled for Public Hearing on August 18, 2025.

Conditions of Approval

As outlined in the Conditions of Approval, the applicant is requesting a deviation from the maximum permitted height in the HID district, allowing the distillation tower to exceed the standard 60-foot height limit by 40 feet. Other conditions include proposed landscaping deviations and enhancements. This includes proposed enhancements to demonstrate higher quality landscaping in accordance with UDO Sub-Section 3.3.1(5), *Methods of Higher Quality*

Demonstration. The applicant proposes a 20-foot Type 'D' perimeter buffer with a 6-foot-high opaque fence. This will be in lieu of the required 30-foot Type 'C' perimeter buffer along the southern and eastern property boundaries. Additionally, plantings within these enhanced perimeter buffers will be provided per the Type D Buffer Configuration (ratio of plantings per 100 linear feet and percentages of evergreen vegetation) and installed with a caliper size that will be fifty percent (50%) greater than the minimum required by UDO Section 6.6.7. The required caliper size for canopy trees is 2.5 inches, which, when increased by fifty percent (50%) as required for enhanced buffers, results in a 3.75-inch caliper at the time of planting. Similarly, the required caliper size for understory trees is 2 inches, which increases to 3 inches to meet the 50% enhancement requirement. Shrubs do not have a minimum caliper requirement. Adherence to the Conditions of Approval and the Concept Plan will be reviewed by the Technical Review Committee during Site Plan and Construction Drawing review.

ADJACENT ZONING, LAND USES, AND FUTURE LAND USES

Direction	Zoning	Existing Land Use(s)	Future Land Use
North	Light Industrial (LID)	North Carolina Railroad and Laboratories	Employment Center
South	Light Industrial (LID)	Office and Vacant	Employment Center
East	Light Industrial (LID)	Vacant with a Telecommunication Facility	Employment Center
West	Light Industrial (LID)	Major Utility	Employment Center

REVIEW CRITERIA

Per UDO Section 2.3.6.J, "the advisability of approving a Conditional Rezoning application is a matter committed to the legislative discretion of the Town Council and is not controlled by any one factor. In determining whether to adopt or deny a proposed Conditional Rezoning, the Town Council may weigh the relevance of and consider the following:

1. If the application is consistent with the applicable standards in Section 3.3, Conditional Zoning Districts;
2. Whether the proposed Conditional Rezoning advances the public health, safety, or welfare;
3. Whether and the extent to which the proposed Conditional Rezoning is appropriate for its proposed location, and is consistent with the purposes, goals, objectives, and policies of the Town's adopted policy guidance;
4. Whether an approval of the Conditional Rezoning is reasonable and in the public interest;
5. Whether and the extent to which the Concept Plan associated with the Conditional Rezoning is consistent with this Ordinance; and
6. Any other factors the Town Council may determine to be relevant.

CONSISTENCY WITH COMPREHENSIVE PLAN AND FUTURE LAND USE MAP

The Town's Future Land Use Map designates this parcel as Employment Center. Employment Centers are strategically located along major transportation corridors with sufficient

infrastructure, rail access, and large parcels to support future job growth. They encourage a mix of uses such as industrial, warehouse, office, research and development, tech-flex, healthcare, renewable energy, recycling, fabrication, assembly, and technology, with limited supporting uses allowed.

Staff finds that this request is consistent with the following Goals, Policies, and/or Strategies of the 2045 Comprehensive Growth Plan:

Goal LU1: Preserves Clayton's character while allowing for growth and development in appropriate areas.

- Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
- Policy LU 1.4: Encourages new businesses and non-residential development in Employment Centers designated on the Future Land Use Map.

Goal ED1: Increases opportunities for companies that provide well-paid jobs.

- Policy ED 1.2: Preserves and develop prime industrial land for employment growth.

PLANNING BOARD CONSIDERATIONS

The Planning Board reviewed this item for recommendation during a public meeting held on July 28, 2025. The Board voted 5–1 to recommend ***approval with conditions,*** as outlined in the agenda packet.

During their discussion, members of the Planning Board expressed interest in understanding the chronology of the project, particularly in relation to the previously approved 2024 rezoning request, 2023-201-RZ. History of this project has been provided above in this report.

The Planning Board also heard public comment from a representative of TRUTH BROADCASTING CORPORATION regarding the AM tower located on the adjacent parcel NCPIN 167700-59-6259. The representative expressed concerns about potential interference with the signal quality between the existing AM tower and the proposed tower included in the project. Following the Planning Board meeting, the applicant evaluated signal interference potential. According to FCC regulations, any construction within two miles of an AM radio tower is required to assess whether it causes interference. If interference is found, the new structure must include a detuning skirt to mitigate the impact. To meet this requirement, FluoroFusion submitted their project details to Lawrence Behr Associates (LBA), a firm that specializes in interference testing and mitigation. After reviewing the location, structure height, and technical specifications, LBA determined that the proposed 92-foot distillation tower will not interfere with the AM signal. This Certificate of Compliance was provided by the applicant and is included as Attachment 8 of this packet.

TOWN COUNCIL CONSIDERATIONS

Following the July 28, 2025 Planning Board Meeting, this application is scheduled for a Public Hearing on August 18, 2025.

STAFF RECOMMENDATION

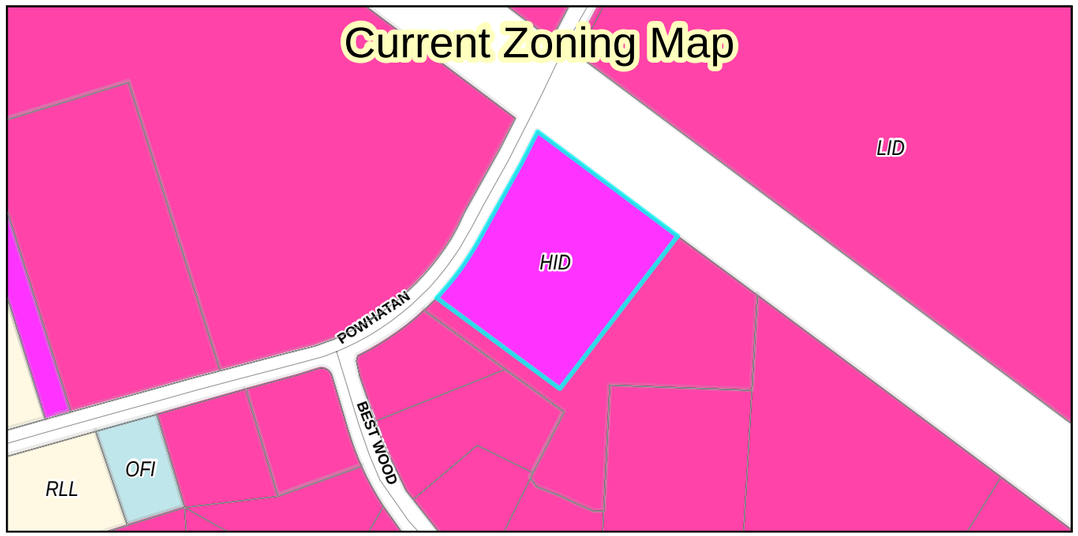
The Technical Review committee has thoroughly reviewed the proposed rezoning and

associated concept plan. Planning staff is recommending ***approval with conditions***, of the request.

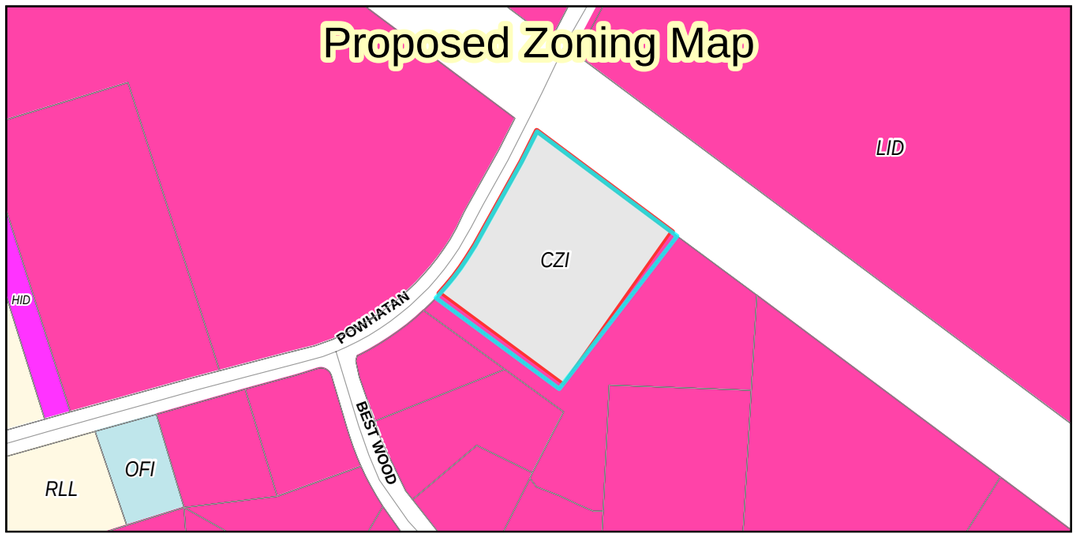
ATTACHMENTS:

1. Staff Report Maps
2. Application
3. Neighborhood Meeting Materials
4. Surrounding Property Notice
5. Exhibit A – Concept Plan
6. Proposed Conditions of Approval
7. Certificate of Compliance – AM Tower Protection
8. Consistency Statements Sheet
9. Newspaper Ad Affidavit
10. Ordinance

Current Zoning Map



Proposed Zoning Map



Aerial



Future Land Use Map



Request: Conditional Rezoning - Type III
Project Name: FluoroFusion
Project Number: 2024-140-CZ

Site

0 0.15 0.3 Miles

Applicant: REAL ENGINEERING INC. - Danny L Howell, Jr
Property Owner: COULAN COMPANY, LLC
Tag #: 05I05014A

Staff Report Map
Prepared by: TOC Planning Department
July 10, 2025

Disclaimer: Town of Clayton assumes no legal responsibility for the quality of the data represented here.

Document Path: C:\Users\rtate\OneDrive - Town of Clayton, NC\Documents\ArcGIS\Projects\MyProject10\MyProject10.aprx

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

Conditional Zoning, Unlimited w/Associated Concept Plan Coversheet

Name of Project: Coulan Company, LLC **Date:** 10-29-24

Applicant Name: Danny L Howell, Jr., PE

The following checklist to be completed by applicant:

- ■ Pre-Application Meeting on: October 10, 2024
- ■ Review Fee
- ■ Completed Application
- ■ Owner's Consent Form
- ■ Adjacent Property Owner's List - Include Names, Full Mailing Addresses & Parcel/NC Tag #
- ■ Neighborhood Meeting Letter (one copy)
- ■ Signed & sealed boundary survey
- ■ Copy of signed & sealed boundary survey in PDF on USB
- ■ Master Plan Narrative
- ■ Master Plan Set to include the following:
  - Cover Sheet
  - Signed & Sealed Boundary Survey
  - Bubble Plan Outlining:
    a. Where and which uses or groups of uses will occur
    b. The proposed intensity/density of those uses
    c. General location of internal and external network of public right-of-way and public infrastructure

Reviewed by: _____

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

Conditional Zoning, Unlimited w/Associated Concept Plan Application

www.ClaytonNC.org/Fees

Applicable Fees: Conditional Rezoning, Unlimited with Associated Concept Plan Fee

SITE INFORMATION

Name of Project: FluoroFusion

Acreage of Property: 3.88 **Current Zoning District:** HID

County Tag #: 05I05014A **NC Pin #:** 167700-59-3446

Address/Location: 3733 Powhatan Road

Existing Zoning District: HID **Proposed Zoning District:** CZI

Ex: CZR, CZM, CZC, CZD, CZI

APPLICANT INFORMATION

Applicant: REAL ENGINEERING, INC.

Mailing Address: 6109 Wilkinsburg Road, Raleigh, NC 27612

Phone Number: (919) 539-7340 **Fax:** N/A

Contact Person: Danny L Howell, Jr. PE

Email Address: Danny@RealEngineeringNC.com

PROPERTY OWNER INFORAMTION

Name: COULAN COMPANY, LLC

Mailing Address: PO BOX 1238, CLAYTON, NC 27528-1238

Phone Number: (513) 545-0680 **Fax:** N/A

Email Address: Dave@FluoroFusion.com

OFFICE USE ONLY

Date Received: _____ Amount Paid: _____ File Number: _____

EXPLANATION OF PROJECT

Please provide detailed information concerning all requests. Attach additional sheets if necessary.

Owner's use of refrigerant recovery/management requires an approximate 100'-ht distilling tower and the max height allowable in current HID zoning is 60'. Per provided Concept/Master Plan our proposed 2-story building will be approximately 30'-ht with an approximate 100'-ht distilling tower centrally located behind proposed building more than 100' from all property lines. (HID to CZI)

APPROVAL CRITERIA – REZONING

All applications for a Conditional Rezoning must address the following Approval Criteria:

1. Consistency with the adopted plans of the Town. (This criteria must also be addressed in Master Plan Narrative.)

   This rezoning is consistent with the Clayton Comprehensive Grown Plan 2045, the Future Land Use Map, Roadway Systems Map, and the Clayton Parks and Greenway System Map, especially Land Use Policy LU-4: Encourage new businesses and non-residential development in Employment Centers designated on the Future Land Use Map.

2. Suitability of the subject property for uses permitted by the current vs. the proposed conditional district.

   The CCGP 2045 shows this property as an employment center. The proposed zoning matches the goals of the CCGP 2045 plan. Strategy LU 1.4.1 encourages a mix of non-residential land use.

3. Whether the proposed change tends to improve the balance of uses or meets specific demand in the Town.

   The industrial zoning creates jobs in the employment center area as outlined in the CCGP 2045 plan. This use should the need for industrial space near like-uses within the Town's ETJ.

4. The capacity of adequate public facilities and services including schools, roads, recreation facilities, wastewater treatment, water supply facilities and stormwater drainage facilities is available for the proposed conditional district.

   Roads, water and stormwater drainage is available for the proposed use. Wastewater will be available soon per ECIA Transmission Main and pump station upgrades. The rezoning should not affect the Town's capacity of public facilities or services, nor will it negatively affect the current infrastructure.

5. It has been determined that the legal purposes for which zoning exists are not violated.

   The existing conditions or future conditions will not violate any legal purposes of the zoning and will serve the community under its zoning district.

6. It has been determined that there will be no adverse effect upon adjoining property owners unless such effect can be justified by the overwhelming public good or welfare.

   There will be no adverse effect upon adjoining property owners. surrounding properties are all zoned industrial, though is Light Industrial (LID).

7. It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public.

No one property owner or small group of property owners will benefit materially from the change to the detriment of the general public.

APPROVAL CRITERIA- MASTER PLAN

All associated Master Plans must address the following Approval Criteria: (This criteria must also be addressed in Master Plan Narrative.)

1. Compliance with code section 155.203(L) and all other applicable requirements of this chapter, or analysis and justification if it deviates from the requirements of this chapter.

Our proposed Master Plan illustrates our need for Conditional Zoning District, CZI, by showing the proposed ~100'-ht distillation tower, which exceeds max. 60'-ht per HID zoning. No other UDO concessions are requested.

2. Consistency with the Clayton General Design guidelines.

Establishing maximum structure height of 100' is our only requested UDO concession and all other Master Plan design is consistent with UDO requirements.

3. Conformance of the proposal with the stated purpose of the requested conditional zoning district.

The Master Plan illustrates why CZI is the ideal conditional zoning district for our requested industrial use.

4. Compatibility of the proposed development with the adjacent community.

The Master Plan illustrates how the subject property is surrounded by like zoning, i.e. LID, and our proposed use will compliment the uses on the surrounding properties.

5. The quality of design intended for each component of the project and the ability of the overall development plan to ensure a unified, cohesive environment at full build-out.

Our client and developer are committed to providing a high performing, aesthetically pleasing product per our proposed Master Plan and continuing to be a contributing member of Clayton, as they already have a functioning development in town.

6. Compatible relationships between each component of the overall project.

This proposed development also adds to the existing infrastructure with proposed roadway improvements to Powhatan Road, including road widening, curb & gutter sidewalk and stormwater per our proposed Master Plan.

7. Self-sufficiency of each phase of the overall project.

The Master Plan illustrates how our proposed phasing can stand alone from each other while complimenting the surrounding properties.

8. Documentation that the proposed infrastructure improvements accommodate the additional impacts caused by the development, or documentation to assure that the development, as proposed, will not overtax the existing public infrastructure systems.

This proposed development also adds to the existing infrastructure with proposed roadway improvements to Powhatan Road, including road widening, curb & gutter sidewalk and stormwater per our proposed Master Plan.

9. The fiscal impact of the proposal and the proposed financing of required improvements.

The Master Plan illustrates how our proposed development increases the values of surrounding properties.

10. The success of the proposal in providing adequate pedestrian and bicycle links within the development and with the adjacent community.

This proposed development also adds to the existing infrastructure with proposed roadway improvements to Powhatan Road, including road widening, curb & gutter sidewalk and stormwater per our proposed Master Plan.

11. The effectiveness with which the proposal protects and preserves the ecologically sensitive areas within the development.

The Master Plan illustrates how we are preserving existing perimeter wooded areas to aid with the performance and opaqueness of our perimeter buffers.

APPLICANT AFFIDAVIT

I/We, the undersigned, do hereby make application and petition to the Town Council of the Town of Clayton to amend the Zoning Ordinance and change the Official Zoning Map of the Town of Clayton as requested. I hereby certify that I have full legal right to request such action and that the statements or information made in any paper or plans submitted herewith are true and correct to the best of my knowledge. I understand this application, related material and all attachments become official records of the Planning Department of the Town of Clayton, North Carolina, and will not be returned.

Danny L. Howell, Jr	Danny L Howell, Jr. Digitally signed by Danny L Howell, Jr. Date: 2024.10.29 12:27:29 -04'00'	10-28-24
Print Name	***Signature of Applicant***	***Date***

NEIGHBORHOOD MEETING INFORMATION

Purpose:
The purpose of the neighborhood meeting is to inform landowners and occupants of nearby lands about a development application that is going to be reviewed under this by the Town of Clayton and to provide the applicant an opportunity to hear comments and concerns about the proposed development from landowners and occupants of nearby lands. It is not the intent of these standards to unreasonably delay or prevent an applicant from filing their development application.

Meeting Date:
The meeting shall take place prior to the application being initially filed with the Town. Nothing shall limit the Town Council from requiring one or more neighborhood meetings be conducted prior to the application being decided.

Meeting Time & Location:
The neighborhood meeting shall take place in a location open to the general public that is as close as possible to the site where development is proposed. In the event no suitable location open to the general public is available, the meeting may take place at a Town-owned or -operated site, subject to any Town requirements for its use. Additionally, the applicant may hold a Virtual neighborhood meeting conducted in a manner consistent with the Town's policies for virtual meetings.

Meeting Notice Mailing requirements:

1. The applicant shall provide notification of the neighborhood meeting via first class mail to all landowners within 300 linear feet of the parcel(s) where the development is proposed.
2. Mailed notice shall be provided no less than ten days prior to the date of the neighborhood meeting.
3. Landowners are advised that any required public notice of a subsequent development application will be provided in accordance with Section 2.4.8, Public Notice, which may be less than 300 feet from the parcel where development is proposed.
4. Multiple meetings may take place, but advance notification for each meeting shall be provided in accordance with subsection 2.4.4 of the Neighborhood Meeting section of the UDO.

Information required to be provided at the Neighborhood Meeting Invitation:

1. The purpose of the meeting;
2. A description of the proposed development;
3. The time, date, and location of the meeting;
4. Telephone and email contact information for the applicant or applicant's representative; and
5. Any additional information that would promote understanding of the development proposal

Information required to be provided at Neighborhood Meeting:

1. A copy of the project application.
2. A schedule of all upcoming public meetings for the application.
3. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
4. A map, drawing, or other depiction of the proposed land use change or development proposal.

Information provided to the Planning Department:

Alert the Planning Department once the date, location, and time of the Neighborhood Meeting are determined.

Deliver the following items to the Planning Department at the time of application submittal in electronic or hard copy format:

- ☑ A list of all parties and mailing addresses who were mailed a meeting notice;*
- ☑ Written proof of mailing was provided in accordance with Section 2.4.4C.3, Notification;*
- ☑ A copy of the meeting notice;*
- ☑ A sign-in sheet of meeting attendees; and*
- ☑ A list of the items discussed, including any questions posed by attendees and the answers provided*

*_Submitted with completed application at the time of submittal._

ADJACENT PROPERTY OWNERS LIST

Project Name: Coulan Company, LLC

The following are all the persons, firms, or corporations owning property within 300 feet and immediately adjacent to the property (including across street rights of way) subject to this request. Where the subject property immediately adjoins a public or private right-of-way, landscape or riparian buffer, commonly-owned private area, public property, or homeowners' association property, then letters of notification shall be sent to adjoining property owners as if they directly abut the subject property. Please use a separate sheet if necessary

It is the responsibility of the applicant to correctly identify the current owner, based upon records in the Johnston County GIS Office, for all property owners of land within the required public notice radius.

	PARCEL NUMBER	NAME	ADDRESS
2	05E99010G	NOVO NORDISK PHARMACEUTICAL	3612 POWHATAN RD CLAYTON, NC 27527-0000
3	05E99010N	NOVO NORDISK PHARM IND	3612 POWHATAN RD CLAYTON, NC 27527-0000
4	05I05019E	NOVO NORDISK PHARMACEUTICAL INDUSTRIES, LP	3612 POWHATAN RD CLAYTON, NC 27527-9217
5	05I05019S	CURRIE GROUP 4, LLC	39 ROSSLYN WAY GARNER, NC 27529-9286
6	05I05008K	JOHNSTON COUNTY INDUSTRIAL DEVELOPMENT CORPORATION	PO BOX 1179 SMITHFIELD, NC 27577-0000
7	05I05019P	TOPPY PAGE, LLC	4441 SIX FORKS RD, STE 106-162 RALEIGH, NC 27609-5729
8	05I05019P	CURRIE GROUP 4, LLC	39 ROSSLYN WAY GARNER, NC 27529-9286
9	05I05019R	TWIFORD BEST WOOD LLC	429 S HUGHES BLVD ELIZABETH CITY, NC 27909-4526
10	05I05019Q	TRUTH BROADCASTING CORPORATION	4405 PROVIDENCE LN, STE D WINSTON SALEM, NC 27106-3226
11	05I05019T	ALIGWEN, LLC	6300 WESTGATE RD, STE A RALEIGH, NC 27617-4754
*		NC RAILROAD	2809 HIGHWOODS BLVD, STE 100 RALEIGH, NC 27604-1000

SAMPLE NEIGHBORHOOD MEETING LETTER
(PLACE ON AGENT'S OR OWNER'S LETTERHEAD)

<Date>

Dear Clayton Area Property Owner:

The purpose of this letter is to notify you of an application filed with the Town of Clayton for a land use change or development proposal involving property adjacent to, or in close proximity to, property shown in your ownership by Johnston County tax records. Per Town of Clayton regulations, a Neighborhood Meeting will be held to provide information to area residents about the proposal. A representative of the applicant will be present to explain their application, answer questions, and solicit comments.

Meeting Date:	THURSDAY, DECEMBER 19, 2024	Meeting Time:	6P
Meeting Location:	3950 POWHATAN ROAD CLAYTON, NC 27520		
Type of Application:	CONDITIONAL ZONING		
Project/proposal:	COULAN COMPANY, LLC		
Property address:	3733 POWHATAN ROAD		
Description of Project/Proposal:	REZONE HID TO CZI TO INCREASE MAXIMUM STRUCTURE HEIGHT FROM 60' TO 100' TO ALLOW DISTILLATION TOWER		
Upcoming public meetings for this application (Planning Board and/or Town Council):			

At a minimum, the following will be available for your inspection at the Neighborhood Meeting:

1. A copy of the project application.
2. A schedule of all upcoming public meetings for the application.
3. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
4. A map, drawing, or other depiction of the proposed land use change or development proposal.

A map is enclosed with this letter showing the location of the property that is subject to this application for land use change and/or development proposal. If you have any questions prior to or after this meeting, you may contact us at ***<Insert phone number of applicant>***. You may also contact the Town of Clayton Planning Department at 919-553-5002.

Sincerely,

<Applicant>

Cc: Town of Clayton Planning Department

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: COULAN COMPANY, LLC

Application: REZONING

Location/Date: 3950 POWHATAN ROAD - THURSDAY, DECEMBER 19, 2024

	NAME	ADDRESS
1	DANNY HOWELL	ENGR - N/A
2	PETE BOLIVAR	3950 POWHATAN
3	Steven Sanderson	2485 Wendell Blvd - Wendell NC
4	Nicole M	Novo Nordisk
5	Shaylah Jones	Novo Nordisk
6	Ray Maloney	3950 Powhatan Rd.
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

NEIGHBORHOOD MEETING SUMMARY FORM

FILL OUT THE FOLLOWING:

Application:	COULAN COMPANY, LLC - REZONING
Date of Mailing:	FRIDAY, DECEMBER 6, 2024
Date of Meeting:	THURSDAY, DECEMBER 19 Time of Meeting: 6P
Location of Meeting:	3950 POWHATAN ROAD
Printed Name:	DANNY L. HOWELL, JR, PE Signature:

Meeting Summary/Minutes: *provide a summary of the discussion held at the meeting, including issues raised and any resolution discussed, and any changes made to the application as a result of the meeting.*

** SEE ATTACHED

Please write clearly (or submit a typed summary). Use additional sheets if necessary.

REAL ENGINEERING INC

6109 Wilkinsburg Road
Raleigh, NC 27612

(919) 539-7340

December 26, 2024

RE: Neighborhood Meeting Summary Form

Application:	Coulan Company, LLC - Rezoning
Date of Mailing:	Friday, December 6, 2024
Date of Meeting:	Thursday, December 19, 2024
Time of Meeting:	6p
Location of Meeting:	FluoroFusion, 3950 Powhatan Road, Clayton, NC 27520

The following were available for inspection at our Neighborhood Meeting:

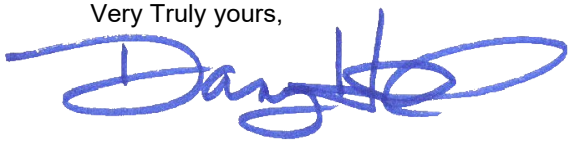
1. A copy of the project application
2. A vicinity map at a scale that is appropriate to the project and shows neighboring properties and roads
3. A sketch of the proposed land use change or development proposal, i.e. MP1.1, Master Plan, dated 12-16-24.

Prior to the neighborhood meeting, upon receiving notification of the meeting, Michael Carbone of Truth Broadcasting Corporation (Parcel No. 05I05019Q), reached out to our team via phone call and email. He expressed concerns of our proposed distillation/recovery tower potentially interfering with their AM broadcast signal toward Raleigh/Durham. Our team has reached out to their team to have an in-person meeting to discuss their concerns further. Mr. Carbone was unable to attend our Neighborhood meeting.

The Neighborhood Meeting began a little after 6p on Thursday, December 19th. There were (2) members of the FluoroFusion team, another member of our design team, and me present at the beginning of the meeting. (2) Representatives from Novo Nordisk (Parcel Nos. 05E9901G, 05E99010N & 05I05019E) were also in attendance. We began the meeting with introductions, and then proceeded to go over the provided Master Plan/sketch plan. Our FluoroFusion team members described the purpose of the distillation/recovery tower and how it operates with zero release of gas or effluent from this process. Different gases boil and occupy certain elevations of the tower and can be separated and removed accordingly. Currently 96% of unused gases, specifically refrigerants, are directly released into the atmosphere, potentially causing adverse effects to our climate and planet. FluoroFusion is tasked with reclaiming these gases before being released into the atmosphere, which is why this proposed tower is necessary. Novo Nordisk seemed to have no issue with our proposal and our project could provide a benefit to their use(s) as well to reclaim steam and other gases from their processes. They offered their continued assistance during our submittal process and even in construction, as needed.

If you have any questions you may contact us at (919) 539-7340 or Danny@RealEngineeringNC.com.

Very Truly yours,



Danny L. Howell, Jr., PE
Real Engineering, Inc., Principal

Town of Cla
Planning Depart
111 E. Second Street, Clayton, NC
P.O. Box 879, Clayton, NC
Phone: 919-553
Fax: 919-553

August 8, 2025

PUBLIC NOTICE

SUBJECT: **Project:** 2024-140-CZ – FluoroFusion Conditional Re

Location: 3733 Powhatan Road

PIN #(s): 167700-59-3446

Applicant: REAL ENGINEERING INC c/o Danny L Howell, Jr.

Dear Clayton Area Property Owner:

Notice is hereby given that the Clayton Town Council will hold a public hearing on Monday, August 18, 2025, at 6:00 p.m. in the Council Chambers at Town Hall, 111 E. Second Street, to consider the conditional rezoning application referenced above.

The applicant is requesting a Type 3 Conditional Rezoning from Heavy Industrial (HID) to Conditional Industrial (CZI). The project includes two buildings proposed for Heavy Manufacturing use, as defined in UDO Section 4.3.82. It also features a 100-foot distillation tower, which exceeds the current maximum permitted height of 60 feet in the HID district.

Based upon records in the Johnston County Tax Office, you are the owner of property that is within 300 feet of this proposed rezoning request. You are invited to attend this meeting and express your opinions on this request to the Town Council.

If you should need additional assistance or information, please contact the Planning Department at (919) 553-5002 or email me at aduchesne@townofclaytonnc.org.

Sincerely,

Audrey Duchesne, Senior Planner

Town of Cla
Planning Depart
111 E. Second Street, Clayton, NC
P.O. Box 879, Clayton, NC
Phone: 919-553
Fax: 919-553

8 de agosto, 2025

AVISO PÚBLICO

ASUNTO: **Proyecto:** 2024-140-CZ – FluoroFusion Conditional F

Ubicación: 3733 Powhatan Road

Números de PIN: 167700-59-3446

Solicitante: REAL ENGINEERING INC c/o Danny L Howell, Jr.

Estimado propietario de propiedad en el área de Clayton:

Se notifica por medio del presente que el Concejo Municipal de Clayton llevará a cabo una audiencia pública el lunes 28 de julio de 2025 a las 6:00 p.m. en la Sala del Concejo del Ayuntamiento, ubicada en 111 E. Second Street, para considerar la solicitud de rezonificación condicional mencionada anteriormente.

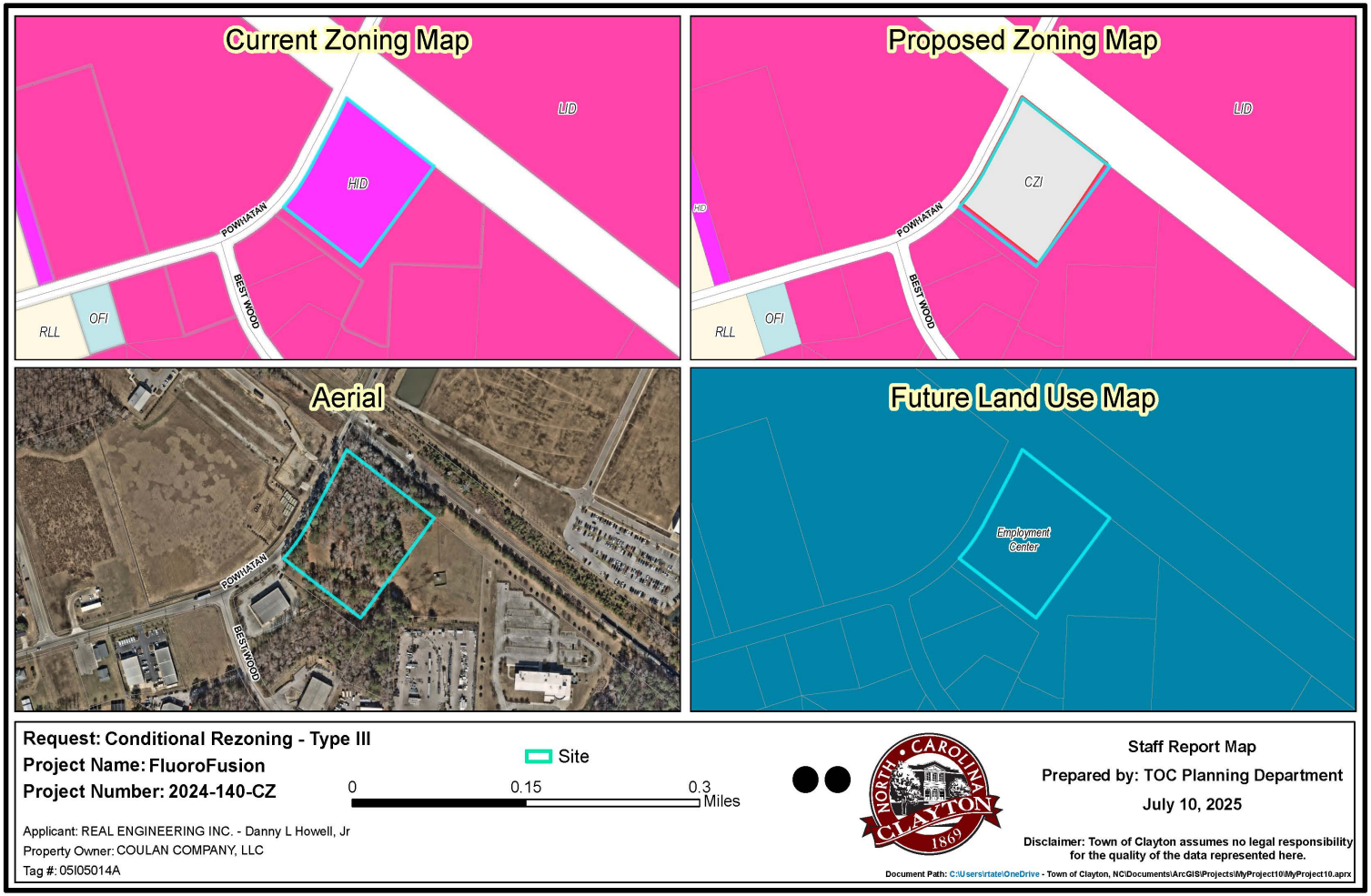
El solicitante está solicitando una reclasificación condicional de tipo 3, de Zona Industrial Pesada (HID) a Zona Industrial Condicional (CZI). El proyecto incluye dos edificios propuestos para uso de manufactura pesada, según lo definido en la Sección 4.3.82 del UDO. También contempla una torre de destilación de 100 pies de altura, que excede la altura máxima permitida de 60 pies en el distrito HID.

Según los registros de la Oficina de Impuestos del Condado de Johnston, usted es propietario de una propiedad ubicada dentro de un radio de 300 pies de esta solicitud de reclasificación propuesta. Se le invita a asistir a esta reunión y expresar su opinión sobre esta solicitud ante el Concejo Municipal.

Si necesita ayuda o información adicional, comuníquese con el Departamento de Planificación al (919) 553-5002 o envíe un correo electrónico a aduchesne@townofclaytonnc.org.

Atentamente

Audrey Duchesne, Planificadora Principal


Current Zoning Map
LID
HID
POWHATAN
BEST WOOD
RLL
OFI
Proposed Zoning Map
LID
CZI
HID
POWHATAN
BEST WOOD
RLL
OFI
Aerial
POWHATAN
BEST WOOD
Future Land Use Map
Employment Center
Request: Conditional Rezoning - Type III
Project Name: FluoroFusion
Project Number: 2024-140-CZ
Site
0
0.15
0.3
Miles
Applicant: REAL ENGINEERING INC. - Danny L Howell, Jr
Property Owner: COULAN COMPANY, LLC
Tag #: 05I05014A
NORTH CAROLINA
CLAYTON
1869
Staff Report Map
Prepared by: TOC Planning Department
July 10, 2025
Disclaimer: Town of Clayton assumes no legal responsibility for the quality of the data represented here.
Document Path: C:\Users\rtate\OneDrive - Town of Clayton, NC\Documents\ArcGIS\Projects\MyProject10\MyProject10.aprx

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ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT TOWN OF CLAYTON STANDARDS AND SPECIFICATIONS

SYMBOLS AND ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
ALUM	ALUMINUM
AST2	ALUMINIZED STEEL – TYPE 2
B–B	BACK TO BACK
BOA	BLOW–OFF ASSEMBLY
C&G	CURB AND GUTTER
CFS	CUBIC FEET PER SECOND
CI	CURB INLET
CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COM	COMMUNICATION
CONC	CONCRETE
DCV	DOUBLE CHECK VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
EASE	EASEMENT
ELEC	ELECTRIC
EX	EXISTING
FES	FLARED END SECTION
FH	FIRE HYDRANT
FM	FORCE MAIN
FT	FEET
FT/SEC	FEET PER SEC
GALV	GALVANIZED
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
L	LENGTH
LF	LINEAR FEET
MH	MANHOLE
PAVE	PAVEMENT
PE	FINISHED PAD ELEVATION
PP	POWER POLE
PVC	POLYVINYL CHLORIDE
R	RADIUS
R/W	RIGHT–OF–WAY
RED	REDUCER
RCP	REINFORCED CONCRETE PIPE
RPZ	REDUCED PRESSURE ZONE
SS	SANITARY SEWER
STA	STATION
TDD	TEMPORARY DIVERSION DITCH
TELE	TELEPHONE
TSB	TEMPORARY SEDIMENT BASIN
UG	UNDERGROUND
WCR	WHEELCHAIR RAMP
W/L	WATER LINE
WM	WATER METER
YI	YARD INLET

EXISTING CURB INLET
EXISTING GRATE INLET/YARD INLET
EXISTING FLARED END SECTION
EXISTING FIRE HYDRANT
EXISTING BLOW–OFF ASSEMBLY
EXISTING GATE VALVE
EXISTING REDUCER
EXISTING WATER METER
EXISTING SAN SEWER MANHOLE
EXISTING CLEAN OUT
EXISTING POWER POLE
EXISTING TELEPHONE PEDESTAL
EXISTING AREA LIGHT
EXISTING SIGN
NEW CURB INLET
NEW GRATE INLET/YARD INLET
NEW FLARED END SECTION
NEW FIRE HYDRANT
NEW BLOW–OFF ASSEMBLY
NEW GATE VALVE
NEW REDUCER
NEW WATER METER
NEW TEE
NEW PLUG
NEW MANHOLE
NEW CLEAN OUT
NEW SIGN
IRON PIPE
BENCHMARK
TEMP SILT FENCE
TEMP TREE PROTECTION FENCE
TEMP COMBINATION SILT/TREE PROTECTION FENCE
TEMP DIVERSION DITCH
DISTURBED LIMITS
STREAM
EXISTING GAS LINE
EXISTING COMMUNICATIONS LINE
EXISTING UNDERGROUND TELEPHONE
EXISTING UNDERGROUND ELECTRIC
EXISTING OVERHEAD ELECTRIC
EXISTING WATER LINE
EXISTING SANITARY SEWER FORCE MAIN
EXISTING SANITARY SEWER
EXISTING STORM DRAINAGE
NEW STORM DRAINAGE
NEW WATER LINE
NEW SANITARY SEWER
NEW SANITARY SEWER FORCE MAIN
NEW GAS MAIN
HANDICAPPED ACCESSIBLE ROUTE

NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF CLAYTON AND NCDOT

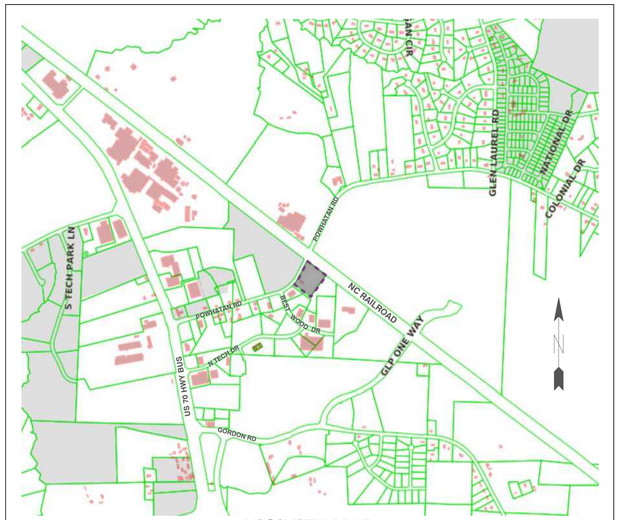
FluoroFusion™

3733 POWHATAN ROAD

TOWN OF CLAYTON, JOHNSTON COUNTY, NORTH CAROLINA

TYPE 3 CONDITIONAL ZONING W/ CONCEPT PLAN

TOWN OF CLAYTON PROJECT NO. 2024-140-CZM



VICINITY MAP
N.T.S.

SHEET INDEX

CP0.0	COVER
	BOUNDARY SURVEY
CP1.1	CONCEPT PLAN

OWNER:

COULAN COMPANY, LLC
PO BOX 1238
CLAYTON, NC 27528-1238

CONTACT: DAVID L. COUCHOT
EMAIL: Dave@FluoroFusion.com

DEVELOPER:

G&G BUILDERS,INC.

1603 S HOLLYBROOK ROAD
WENDELL, NC 27591

CONTACT: AMOS GREENE
PHONE: (919) 365-7488
EMAIL: Amos@GGBuildersNC.com

ENGINEER:

REAL ENGINEERING INC

REAL ENGINEERING, INC.
6109 WILKINSBURG ROAD
RALEIGH, NORTH CAROLINA 27612
TELEPHONE: (919) 539-7340
CERTIFICATION NUMBERS: NCBELS (C-4406)

CONTACT: DANNY L. HOWELL, JR. PE
EMAIL: Danny@RealEngineeringNC.com

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029993 DANNY L. HOWELL JR. PRELIMINARY

NO.	DATE	DESCRIPTION
5	06-23-25	PER ToC CZM COMMENTS
4	06-05-25	PER ToC CZM COMMENTS
3	05-13-25	PER ToC CZM COMMENTS
2	04-04-25	PER ToC CZM COMMENTS
1	12-26-24	ADDED AM/FM TOWER

TOWN OF CLAYTON PROJECT NO. 2024-140-CZM

03-24010 COULAN COMPANY, LLC CONDITIONAL ZONING (MASTER PLAN SET)

E:\2024\24010 - Powerhouse - G&G Clayton\04 Construction_24010 FluoroFusion - CE\ CURRENT.dwg, COVER, 6/23/2025 4:05:07 PM, danny

Exhibit A

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PROPOSED CONDITION(S)/DEVIATION(S)

STANDARD	PERMITTED (UDO 3.2.6)	PROPOSED
BUILDING HEIGHT (FT)	60	100

ENHANCEMENTS

STANDARD	REQ'D PER UDO	PROPOSED
LANDSCAPING	EAST: 30' TYPE 'C' PERIMETER BUFFER	*EAST: 20' TYPE 'D' PERIMETER BUFFER (W/ 6' HT. OPAQUE FENCE)
	SOUTH: 30' TYPE 'C' PERIMETER BUFFER	*SOUTH: 20' TYPE 'D' PERIMETER BUFFER (W/ 6' HT. OPAQUE FENCE)

*INCREASE CALIPER SIZE OF NEWLY PLANTED MATERIAL BY AT LEAST 50% BEYOND THE MINIMUM REQUIRED IN UDO SECTION 6.6.7

PROJECT SITE DATA

PROJECT NAME:		FLUOROFUSION
PROJECT NO.:		2024-140-CZM
SUBMITTAL TYPE:		TYPE 3 CONDITIONAL ZONING W/ CONCEPT PLAN
OWNER:		COULAN COMPANY, LLC PO BOX 1238, CLAYTON, NC 27528-1238
DEVELOPER:		G&G BUILDERS, INC. 1603 S HOLLYBROOK ROAD, WENDELL, NC 27591
TAG/ID:		0510 5014A
NCPIN:		167700-59-3446
DEED:		DB 06442 PG 0971-3
ADDRESS:		3733 POWHATAN ROAD
ZONING/OVERLAY:	EX: PR:	HEAVY INDUSTRIAL DISTRICT (HID) CONDITIONAL ZONING INDUSTRIAL (CZI)
LAND USE PLAN:		EMPLOYMENT CENTER
PRINCIPLE USE:	EX: PR:	S-F RESIDENTIAL INDUSTRIAL: MANUFACTURING, HEAVY (UDO SEC. 4.3.82)
SITE AREA:	(EX PER DB 6442 PG 971-3) (PR POWHATAN RD R/W DED.) (REQUIRES NEW PLAT)	3.88 AC (169094 SF) -0.1 AC (4342 SF) (1/2 OF PR 80' R/W) 3.78 AC (164752 SF)
OPEN SPACE: (5%)		0.19 AC (8238 SF) PASSIVE: SCM (9380 SF - 5.7%)

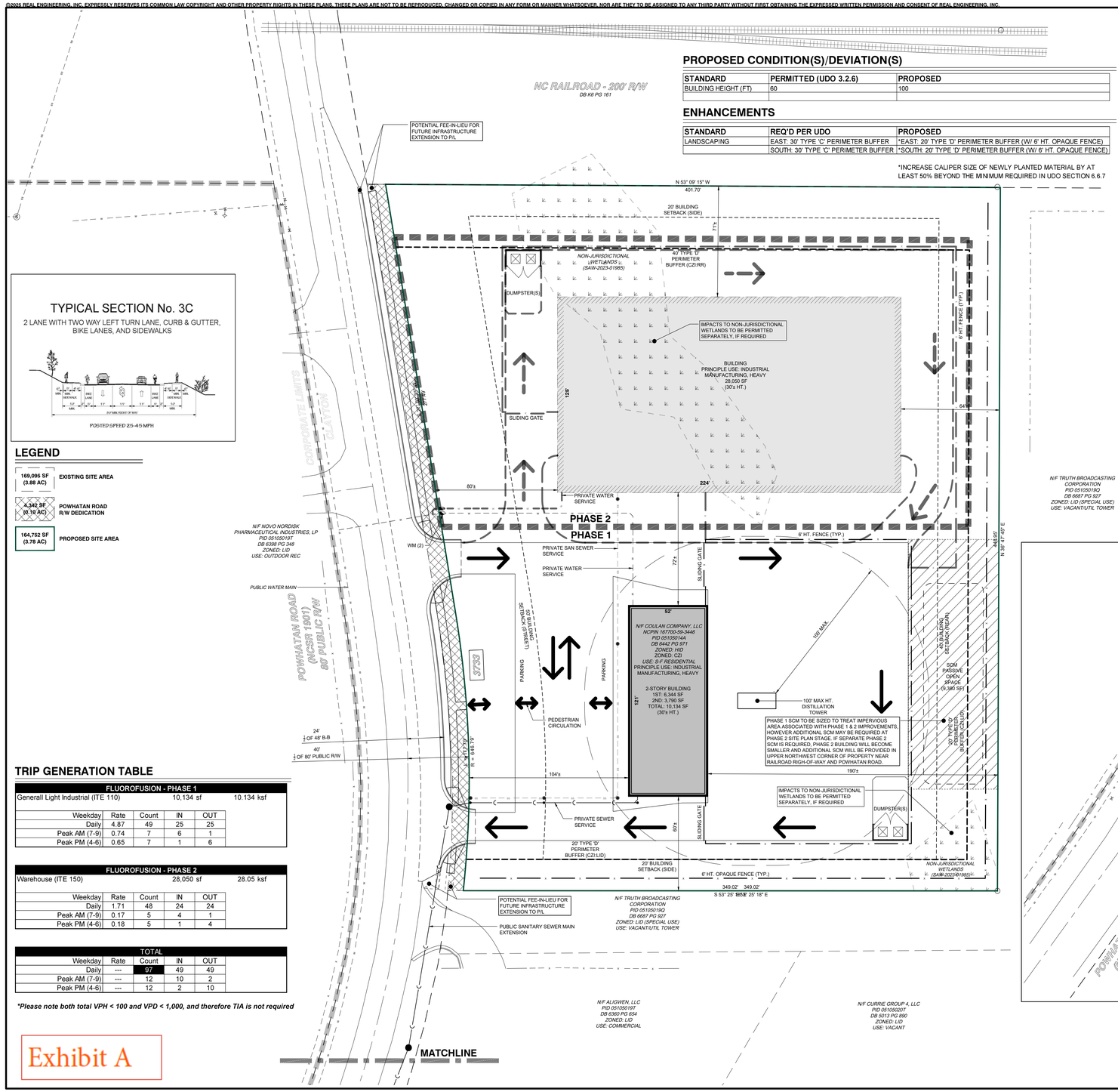
TYPICAL SECTION No. 3C

2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, BIKE LANES, AND SIDEWALKS

POSTED SPEED 25-45 MPH

LEGEND

- 169,095 SF (3.88 AC) — EXISTING SITE AREA
- 4,342 SF (0.10 AC) — POWHATAN ROAD R/W DEDICATION
- 164,752 SF (3.78 AC) — PROPOSED SITE AREA



TRIP GENERATION TABLE

FLUOROFUSION - PHASE 1

Generall Light Industrial (ITE 110) — 10,134 sf — 10.134 ksf

	Rate	Count	IN	OUT
Weekday	4.87	49	25	25
Daily	0.74	7	6	1
Peak AM (7-9)	0.65	7	1	6
Peak PM (4-6)				

FLUOROFUSION - PHASE 2

Warehouse (ITE 150) — 28,050 sf — 28.05 ksf

	Rate	Count	IN	OUT
Weekday	1.71	48	24	24
Daily	0.17	5	4	1
Peak AM (7-9)	0.18	5	1	4
Peak PM (4-6)				

TOTAL

	Rate	Count	IN	OUT
Weekday	---	97	49	49
Daily	---	12	10	2
Peak AM (7-9)	---	12	2	10
Peak PM (4-6)	---	12	2	10

*Please note both total VPH < 100 and VPD < 1,000, and therefore TIA is not required

Exhibit A

G&G BUILDERS, INC.

REAL ENGINEERING
6109 WILKINSBURG ROAD
RALEIGH, NC 27612
(919) 539-7340
NCBELS FIRM NO: C-4406

TOWN OF CLAYTON PROJECT NO. 2024-140-CZM

JOB NO: 24010 DATE: 11-01-24

CONCEPT PLAN

SCALE: 1" = 30'

FluoroFusion

3733 POWHATAN ROAD
TOWN OF CLAYTON, JOHNSTON COUNTY, NORTH CAROLINA

NO.	DATE	DESCRIPTION
1	10-24-24	FOR AM TOWER
2	04-04-25	PER ToC CZM COMMENTS
3	05-13-25	PER ToC CZM COMMENTS
4	06-05-25	PER ToC CZM COMMENTS
5	06-23-25	PER ToC CZM COMMENTS

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039993 JAMES E. HOWELL JR.
PRELIMINARY
NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET
CP1.1

E:\2024\24010 - Fluorofusion - G&G Clayton\04 Construction_24010 Fluorofusion - CZI CURRENT\Dwg\ CONCEPT PLAN, 6/23/2025 4:05:56 PM, danny

Conditions of Approval

(2024-140-CZM FluoroFusion Conditional Rezoning Type 3)

1. Following Town Council approval, an electronic copy of the Concept Plan, Exhibit A, including the Conditions of Approval shall be submitted to the Planning Department.

2. The Project shall meet all applicable adopted Town of Clayton Unified Development Ordinance (UDO) requirements, Town of Clayton Manual of Specifications, Standards, & Design, and the North Carolina Fire Code and NFPA Fire standards, except where specifically modified by the approved Concept Plan and Conditions of Approval.

3. The Project shall be constructed in substantial conformance with the Concept Plan (Exhibit A) as approved by the Clayton Town Council.

4. The associated Concept Plan (Exhibit A) and Conditions of Approval for this project shall allow for any changes in Town Development regulations, either through text or the official Zoning Map, that are considered as upzoning, downzoning, or establishment of any nonconformity.

5. The Project and associated development applications shall adhere to Town adopted policies and ordinances that are in effect at the time of their submittal and acceptance for review.

6. To the extent of any conflict between the Concept Plan (Exhibit A) and these Conditions of Approval, these Conditions shall control.

7. In the event the development contemplated in a Conditional Rezoning application is not substantially commenced within three years from the date of the approval, the Town Council may initiate a rezoning application to return the land to its prior or to some other appropriate zoning district designation.

8. The project's distillation tower shall be limited to a maximum height of 100 feet. This shall exceed the UDO's typical maximum height of 60 feet for a structure as outlined in UDO Section 3.2.6.

9. The project shall provide perimeter buffer enhancements to requirements of the UDO Section 6.6.12.G as follows:

    - A 20’ Type ‘D’ Perimeter Buffer with 6’ height opaque fence shall be provided in lieu of the required 30' Type C perimeter buffer along the Southern and Eastern boundary perimeters.

- Plantings within these Southern and Eastern boundary perimeters enhanced buffers shall be installed with an increased caliper size of at least 50% beyond the minimum required in UDO Section 6.6.7.

PROPERTY OWNER AFFIDAVIT

I/We, the undersigned, do hereby certify that I have reviewed the recommended conditions of approval and am/are in agreement with the conditions as they are outlined within this letter.

The Coulan Company LLC by Harold B. Kivlan, Manager		July 9, 2025
Print Name	*Signature of Property Owner*	*Date*

Signature affirms compliance with Unified Development Ordinance Section 2.3.6.D.1.a and North Carolina General Statutes § 160D-703 (b).

AM PROTECTION
CERTIFICATE
OF COMPLIANCE

05I05014A FluoroFusion | *Sanderson Engineering, Inc.*

WHEREAS, The Rules and Regulations of the Federal Communications Commission require that notification be given to certain AM broadcast stations located within a prescribed distance, and tower height relative to any AM station frequency, of new or significantly modified wireless antenna structures; and

WHEREAS, A search has been made of the FCC AM database current as of 01/04/2025, based on the coordinates 35-37-1.49 N 78-24-42.48 W, known as "FluoroFusion"; with a height of 92 ft.;

THEREFORE, this certificate is issued to Sanderson Engineering, Inc. on July 30, 2025 to attest to its diligence in determining compliance with FCC rules. Thus, under current FCC rules no further action is required by Sanderson Engineering, Inc. subject to the accuracy and validity of data provided by Sanderson Engineering, Inc. about FluoroFusion and the continued validity of FCC data at the time of construction.

Date 07.30.2025

Signature

Kevin Long
Director of Engineering

LawrenceBehr ASSOCIATES
An LBA GROUP Company

3400 Tupper Drive | Greenville, NC 27834 | 252.757.0279 | www.lbagroup.com

Copyright © 2025 Lawrence Behr Associates, Inc.

FluoroFusion Conditional Rezoning | 2024-140-CZM

Motions for Consistency Statements

The Town Council may choose from one of the four suggested motions below.

Staff Recommends the Motion in Red Bold Text

Motion 1: Approval – Consistent with the 2045 Comprehensive Growth Plan

I make a motion to approve the FluoroFusion Conditional Industrial Rezoning, the associated Concept Plan, and Conditions of Approval, Ordinance #2025-08-04, based on consistency with the Goals, Policies, and/or Strategies of the adopted 2045 Comprehensive Growth Plan, in that:

- The property is designated in the Future Land Use Map as Employment Center.
- Goal LU1: Preserves Clayton's character while allowing for growth and development in appropriate areas.
    - Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
    - Policy LU 1.4: Encourages new businesses and non-residential development in Employment Centers designated on the Future Land Use Map.
- Goal ED1: Increases opportunities for companies that provide well-paid jobs.
    - Policy ED 1.2: Preserves and develop prime industrial land for employment growth.

The action is reasonable and in the public interest, in that:

- The Comprehensive Growth Plan encourages non-residential uses in this area.
- The request is compatible with existing zoning and land uses in the area.

Motion 2: Recommend Approval – Inconsistent with the 2045 Comprehensive Growth Plan

I make a motion to approve the FluoroFusion Conditional Industrial Rezoning, the associated Concept Plan, and Conditions of Approval, Ordinance #2025-08-04. While the request is inconsistent with the Goals, Policies, and/or Strategies of the adopted 2045 Comprehensive Growth Plan, in that:

- The property is designated in the Future Land Use Map as Employment Center.
- Goal LU1: Preserves Clayton's character while allowing for growth and development in appropriate areas.
    - Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
    - Policy LU 1.4: Encourages new businesses and non-residential development in Employment Centers designated on the Future Land Use Map.
- Goal ED1: Increases opportunities for companies that provide well-paid jobs.

- Policy ED 1.2: Preserves and develop prime industrial land for employment growth.

The action is reasonable and in the public interest, in that:

- The Comprehensive Growth Plan encourages non-residential uses in this area.
- The request is compatible with existing zoning and land uses in the area.

Motion 3: Recommend Denial – Consistent with the 2045 Comprehensive Growth Plan

I make a motion to deny the FluoroFusion Conditional Industrial Rezoning, the associated Concept Plan, and Conditions of Approval, Ordinance #2025-08-04. While the request is consistent with the Goals, Policies, and/or Strategies of the adopted 2045 Comprehensive Growth Plan, in that:

- The property is designated in the Future Land Use Map as Employment Center.
- Goal LU1: Preserves Clayton's character while allowing for growth and development in appropriate areas.
    - Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
    - Policy LU 1.4: Encourages new businesses and non-residential development in Employment Centers designated on the Future Land Use Map.
- Goal ED1: Increases opportunities for companies that provide well-paid jobs.
    - Policy ED 1.2: Preserves and develop prime industrial land for employment growth.

This action is reasonable and in the public interest, in that:

- The requested rezoning is incompatible with existing land uses in the area.
- The current zoning designation is preferable to the area.

Motion 4: Recommend Denial – Inconsistent with the 2045 Comprehensive Growth Plan

I make a motion to deny the FluoroFusion Conditional Industrial Rezoning, the associated Concept Plan, and Conditions of Approval, Ordinance #2025-08-04. The request is inconsistent with the Goals, Policies, and/or Strategies of the adopted 2045 Comprehensive Growth Plan, in that:

- The property is designated in the Future Land Use Map as Employment Center.
- Goal LU1: Preserves Clayton's character while allowing for growth and development in appropriate areas.
    - Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
    - Policy LU 1.4: Encourages new businesses and non-residential development in Employment Centers designated on the Future Land Use Map.
- Goal ED1: Increases opportunities for companies that provide well-paid jobs.

- Policy ED 1.2: Preserves and develop prime industrial land for employment growth.

This action is reasonable and in the public interest, in that:

- The requested rezoning is incompatible with existing land uses in the area.
- The current zoning designation is preferable to the area.

Column

INTERIM AD DRAFT

This is the proof of your ad scheduled to run in **Johnstonian News - (Johnston County)** on the dates indicated below. If changes are needed, please contact us prior to deadline at **(919) 284-2295**. Please note: when you submit a legal document, you are responsible for ensuring payment for the associated fees or charges are paid.

Notice ID: tpmZ0siPqUvfkVzaVMW5 | **Proof Updated: Jul. 30, 2025 at 10:08am EDT**
Notice Name: 2025-10-CZM,2025-23-CZM,2025-140-CZM,Coulon

This is not an invoice. Below is an estimated price, and it is subject to change. You will receive an invoice with the final price upon invoice creation by the publisher.

FILER	FILING FOR
Sam Johnson-Phillips sphillips@townofclaytonnc.org (919) 553-5002	Johnstonian News - (Johnston County)

Columns Wide: 1 **Ad Class:** Legals

08/06/2025: Other	168.00
08/13/2025: Other	168.00

Subtotal	$336.00
Tax %	0
Processing Fee	$38.60
Total	**$374.60**

See Proof on Next Page

PUBLIC NOTICE

The Clayton Town Council will hold Public Hearings at 6:00 PM on Monday August 18, 2025, at Town Hall, 111 E. Second Street, regarding the applications listed and described below. These public hearings have been scheduled and will be heard in accordance with the requirements of NCGS.

· 2025-10-CZM Clayton Mixed Use (Dominium) Conditional Rezoning: Request to rezone one parcel (3.3 acres) from Corridor Commercial (CRM) to Conditional Zoning Commercial (CZC) district. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The applicant is proposing to develop a 167-unit senior living facility and up to 6,400 SF of commercial development. The parcel is located off Pritchard Road, Waterfield Drive, Swann Trail, and Collinsworth Road. PIN # 177000-18-0722.

· 2025-23-CZM Heavner Property Conditional Rezoning: Request to rezone two parcels (74.08 acres) from Corridor Commercial (CRM) and Residential Large Lot (RLL) to Conditional Zoning Commercial (CZC) District. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The applicant proposes up to 51.60 acres of the site to include commercial development, with 15.90 additional acres consisting of multi-family development. The parcels are located off Clayton Blvd, east of Financial Drive, Town Centre Blvd, and Scholar Drive. PIN #s 165909-05-8421 & 165909-15-8400.

· 2025-140-CZM FluroFusion Conditional Rezoning: Request to rezone one parcel (3.88 acres) of land from Heavy Industrial (HID) to Conditional Industrial (CZI) District. This is a Type 3 Conditional Rezoning and includes a Concept Plan. The request includes allowance of Heavy Manufacturing with a 100-foot distillation tower. The parcel is located on Powhatan Road between NC Railroad Company and Best Wood Dr. PIN # 167700-59-3446.

· 2024-77-ANX Coulon Company Annexation: Request of a non-contiguous annexation to annex approximately 5.23 acres of land in the Town's ETJ into the Town's Corporate Limits. The property is located at 3733 Powhatan Road and described as follows: Beginning at the approximate centerline intersection of Powhatan Road, NCSR 1901, and the North Carolina Railroad Company right-of-way, said point being the place and point of beginning; Thence leaving the Powhatan Road centerline and following the center of the North Carolina Railroad Company right-of-way S53°09'15"E459.51 feet to an existing iron pipe; Thence leaving the center of the North Carolina Railroad right-of-way S36°47'45"W 99.64 feet to an existing iron pipe; Thence S36°47'45"W 449.17 feet to an existing rebar; Thence N53°25'18"W 355.26 feet to an existing iron pipe on the eastern right-of way of Powhatan Road; Thence N53°25'18"W 32.59 feet to a point in the approximate centerline of Powhatan Road; Thence with the approximate centerline of Powhatan Road along a curve having a Radius of 693.25 feet, an Arc Length of 189.70 feet, and a chord bearing and distance of N34°16'59"E 189.11 feet to a point; Thence N26°51'17"E367.41 feet to the place and point of beginning and containing 5.23 acres more or less. PIN # 167700-59-3446.

These are open meetings, and the public is invited to attend. To obtain more information regarding these applications, members of the public may contact the Planning Department at 919-553-5002 or email at planning@townofclaytonnc.org .

Heidi Holland, CMC, NCCMC
Town Clerk
Town of Clayton
919-553-5002 ext. 5004

The Johnstonian Newspaper

Please advertise on the following dates:

August 6, 2025
August 13, 2025

Affidavit of publication required.
The Johnstonian
August 6, 13, 2025

ORDINANCE TO AMEND THE ZONING MAP OF THE TOWN OF CLAYTON, NORTH CAROLINA IN ACCORDANCE WITH THE UNIFIED DEVELOPMENT ORDINANCE (UDO) 2024-140-CZM FLUOROFUSION CONDITIONAL REZONING

WHEREAS an application has been filed with the Town of Clayton requesting an amendment to the Zoning Map of the Town of Clayton by conditionally rezoning property from the Heavy Industrial (HID) zoning district to the Conditional Industrial (CZI) zoning district. The subject property is 3.88 acres and is located Outside of Town Limit located on the easterly side of Powhatan Rd, north of Best Wood Dr and south of the North Carolina Railroad addressed as 3733 Powhatan Road and identified as NC PIN # 167700-59-3446 (Johnston County Tax ID 05I05014A); and

WHEREAS said property is owned by COULAN COMPANY, LLC; and

WHEREAS the Planning Board of the Town of Clayton has reviewed the proposed rezoning request at their July 28, 2025 meeting and made a recommendation thereupon; and

WHEREAS notice of a Public Hearing to consider the proposed zoning change was published in accordance with law in The Johnstonian, a local newspaper, as required by Unified Development Ordinance Section 2.4.8(D) and North Carolina General Statutes §160D-602; and

WHEREAS a notice of a Public Hearing to consider the proposed zoning change was mailed to the owner of the parcel of land involved, as shown on the Johnston County Tax Listing, and to the owners of all parcels of land abutting that parcel of land and within 300 feet of the subject parcel of land, as shown on the Johnston County Tax Listings, by depositing a copy of the same in the United States Mail, first class postage paid, as required by Unified Development Ordinance Section 2.4.8(E) and by North Carolina General Statutes §160D-602; and

WHEREAS notice of a Public Hearing to consider the proposed zoning change was posted on the property as required by Unified Development Ordinance Section 2.4.8(F) of the and by North Carolina General Statues §160D-602 of the; and

WHEREAS the said Public Hearing was conducted at the Town Council meeting held at 6:00 p.m. on August 18, 2025, wherein a reasonable opportunity was given to all those in attendance to speak either in favor or against the said change to make relevant comments; and

THEREFORE, after duty considering the matter, THE TOWN COUNCIL OF THE TOWN OF CLAYTON DOES HEREBY ORDAIN:

SECTION 1. The Official Zoning Map of the Town of Clayton is hereby amended to designate the following described property as part of the Conditional Industrial (CZI) district:

General Description:

Outside of Town Limit located on the easterly side of Powhatan Rd, north of Best Wood Dr and south of the North Carolina Railroad addressed as 3733 Powhatan Road and identified as NC PIN # 167700-59-3446 (Johnston County Tax ID 05I05014A).

SECTION 2. That if any section, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of Ordinance.

SECTION 3. The applicant is requesting to require these conditions of approval:

Conditions of Approval (2024-140-CZM FluoroFusion Conditional Rezoning)

1. Following Town Council approval, an electronic copy of the Concept Plan, Exhibit A, including the Conditions of Approval shall be submitted to the Planning Department.

2. The Project shall meet all applicable adopted Town of Clayton Unified Development Ordinance (UDO) requirements, Town of Clayton Manual of Specifications, Standards, & Design, and the North Carolina Fire Code and NFPA Fire standards, except where specifically modified by the approved Concept Plan and Conditions of Approval.

3. The Project shall be constructed in substantial conformance with the Concept Plan (Exhibit A) as approved by the Clayton Town Council.

4. The associated Concept Plan (Exhibit A) and Conditions of Approval for this project shall allow for any changes in Town Development regulations, either through text or the official Zoning Map, that are considered as upzoning, downzoning, or establishment of any Nonconformity.

5. The Project and associated development applications shall adhere to Town adopted policies and ordinances that are in effect at the time of their submittal and acceptance for review.

6. To the extent of any conflict between the Concept Plan (Exhibit A) and these Conditions of Approval, these Conditions shall control.

7. In the event the development contemplated in a Conditional Rezoning application is not substantially commenced within three years from the date of the approval, the Town Council may initiate a rezoning application to return the land to its prior or to some other
appropriate zoning district designation.

8. The project's distillation tower shall be limited to a maximum height of 100 feet. This shall exceed the UDO's typical maximum height of 60 feet for a structure as outlined in UDO
Section 3.2.6.

9. The project shall provide perimeter buffer enhancements to requirements of the UDO Section 6.6.12.G as follows:

    - A 20'Type 'D' Perimeter Buffer with 6' height opaque fence shall be provided in lieu of the required 30' Type C perimeter buffer along the Southern and Eastern boundary perimeters.

    - Plantings within these Southern and Eastern boundary perimeters enhanced buffers shall be installed with an increased caliper size of at least 50% beyond the minimum required in UDO Section 6.6.7

SECTION 4. That the Town Council hereby adopts the following Statement of Consistency and Reasonableness for the proposed rezoning: The request is consistent with the 2045 Comprehensive Growth Plan in that:

- The property is designated in the Future Land Use Map as Employment Center.
- Goal LU1: Preserves Clayton's character while allowing for growth and development in appropriate areas.
    - Policy LU 1.3: Encourages non-residential land uses in areas consistent with the Future Land Use Map.
    - Policy LU 1.4: Encourages new businesses and non-residential development in Employment Centers designated on the Future Land Use Map.
- Goal ED1: Increases opportunities for companies that provide well-paid jobs.
    - Policy ED 1.2: Preserves and develop prime industrial land for employment growth.

The action is reasonable and in the public interest, in that:

- The Comprehensive Growth Plan encourages non-residential uses in this area.
- The request is compatible with existing zoning and land uses in the area.

SECTION 5. That this ordinance shall become effective immediately upon its adoption.

Duly adopted this 18th day of August 2025, while in regular Session.

_____

Jody L. McLeod
Mayor

ATTEST:

Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM:

Jim Cauley
Town Attorney

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	OLD BUSINESS

Item Title

Capital Project Budget Ordinances

Presenter(s)

Robert McKie, Jr., Finance Director

Suggested Action

Adoption of Ordinance - Ordinance #2025-08-07 and #2025-08-08

Strategic Priorities Alignment

☒ Vibrant Downtown	☒ Desirable Amenities and Spaces	☒ Sustainable Infrastructure	☒ Mobility, Transportation, and Transit	☒ Diversified Economic Development	☒ Community Outreach and Engagement	☒ Public Safety

Public Hearing: No

Applicable General Statute Number: G.S. 159-15

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey

☐ Special Mailing ☒ None Required

Updates Since Previous Presentation

These projects are included in the Town's capital improvement program.

Summary

The Finance Director will present two capital project budget ordinances.

Recommendation

The Executive Team recommends adoption of the ordinances.

Funding Source

Grants, PAYGO, and debt issuance.

Cost

Yes

Corresponding Documentation

Capital Project Budget Ordinance_Main St PED Improvements

Capital Project Budget Ordinance_NCDEQ $14M Wastewater System Improvements

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Submitted By: Robert McKie, Jr., Finance Department

Reviewed By:

Robert McKie, Jr., Finance Director	Approved - Aug 11 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

TOWN OF CLAYTON
MAIN STREET PEDESTRIAN IMPROVEMENTS PROJECT
CAPITAL PROJECT BUDGET ORDINANCE

BE IT HEREBY ADOPTED BY THE TOWN COUNCIL FOR THE TOWN OF CLAYTON that the following ordinance shall be established to undertake pedestrian improvements on Main Street between Robertson and Smith:

Revenues

Line Item	Description	Amount
623-45 65	Grant NC DOT TIP Project	$2,215,520
623-49 80	Due from General Fund	$1,897,250
	Total	$4,112,770

Expenditures

Line Item	Description	Amount
623-56 00	Professional Services	$585,070
623-58 00	Capital Projects	$2,643,000
623-58 02	Easement Acquisition	$320,000
623-58 24	Design	$564,700
	Total	$4,112,770

Duly adopted this ____ day of _____, 2025 while in regular session.

_____
Jody L. McLeod
Mayor

Attest:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM

_____
Jim Cauley
Town Attorney

TOWN OF CLAYTON
NC DEQ WASTEWATER SYSTEM IMPROVEMENTS
CAPITAL PROJECT BUDGET ORDINANCE

BE IT HEREBY ADOPTED BY THE TOWN COUNCIL FOR THE TOWN OF CLAYTON that the following ordinance shall be established to make major wastewater system improvements that are partially funded by a grant from NC DEQ, including Walmart PS, Forest Hills PS, Walnut Creek PS, West Clayton Regional Sewer, and Cornwallis Sewer:

Revenues

Line Item	Description	Amount
648-45 76	NC DEQ Grant	$14,036,250
648-48 05	Finance Capital	$27,523,750
	Total	$41,560,000

Expenditures

Line Item	Description	Amount
648-56 00	Professional Services	$6,250,000
648-58 31	Sewer Line Improvements	$32,100,000
648-58 99	Contingency	$3,210,000
	Total	$41,560,000

Duly adopted this ____ day of _____, 2025 while in regular session.

_____
Jody L. McLeod
Mayor

Attest:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM

_____
Jim Cauley
Town Attorney

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	NEW BUSINESS

Item Title

Amendment to the Code of Ordinances, Chapter 96 Solid Waste Management, Sections 96.02 and 96.04

Presenter(s)

Jon Weckesser, Senior Zoning & Code Enforcement Officer

Suggested Action

Adoption of Ordinance - Ordinances #2025-08-09 & #2025-08-10

Strategic Priorities Alignment

						
☐	☐	☐	☐	☐	☐	☐
Vibrant Downtown	**Desirable Amenities and Spaces**	**Sustainable Infrastructure**	**Mobility, Transportation, and Transit**	**Diversified Economic Development**	**Community Outreach and Engagement**	**Public Safety**

Public Hearing: No

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Public Forum/Input Session
- ☐ E-News Distribution
- ☐ Social Media
- ☐ Special Mailing
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Press Release
- ☐ Website
- ☐ Survey
- ☒ None Required

Summary

The purpose of this amendment is to update and reflect current Town standards as it pertains to the collection of Solid Waste. After holding a meeting with representatives of the Town's waste management contractor (All-Star Waste Services), staff concluded that Code of Ordinances text amendments are essential to correctly reflect the updates needed to adhere to All-Star Waste Management's standards.

Chapter 96.02 – Amend scheduled pick-up of recyclable materials in multi-family residential dwellings; and Chapter 96.04 – Amend yard waste removal standards as it applies to acceptable yard waste containers.

Funding Source

N/A

Corresponding Documentation

96.02 Collection Schedule Revised

96.04 Yard Waste Collection Revised

2025-08-09 Chapter 96 Section 96.02 Collection Schedule Amendment

2025-08-10 Chapter 96 Section 96.04 Yard Waste Collection Amendment

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Submitted By: Heidi Holland, Planning

Reviewed By:

Courtney Tanner, Deputy Town Manager	Approved - Aug 14 2025
Rich Cappola, Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

§ 96.02 GARBAGE AND RECYCLING COLLECTION ROUTES AND SCHEDULES.

(A) Where the town provides collection of garbage and recycling, residential property owners or their tenants must use town collection services.

(B) Single-family residential customers will receive once per week curbside collection of garbage, and yard waste (i.e., limbs, grass clippings, plant trimmings), and collection of recyclable materials every other week.

(C) Multi-family residential customers will receive once per week collection of garbage and ~~the collection of~~ recyclable materials ~~every other week~~. It is the responsibility of the landlord to collect yard waste (i.e., limbs, grass clippings, plant trimmings).

(1) Multi-family developments will receive an equivalent level of solid waste collection service per unit for volume collected as compared to a single-family unit.

(2) Multi-family developments or complexes which cannot readily or practically be served with standard solid waste and recycling carts may be subject to a solid waste disposal surcharge, based on the actual cost to the town to serve the subject property with dumpsters.

(3) All new multi-family developments with more than eight units must have dumpster facilities. The town and the landlord may enter into an agreement for solid waste disposal facilities and services, or the landlord may enter into an agreement with a private solid waste contractor providing equivalent service.

(D) Non-residential customers are required to contract with a private solid waste contractor for garbage collection.

(E) To ensure an equitable and timely delivery of solid waste services residential areas shall be divided into collection routes. Each route shall receive garbage and yard waste collection service once per week and recyclable collection every other week. The day of service may change as routes increase or decrease in size, but not without written notice. Affected customers shall be notified in advance of changes to their service collection schedule.

(F) Normal service may be delayed due to extreme weather conditions, holidays, equipment breakdowns, or due to other unusual circumstances. In the case of holidays, general notice shall be provided in advance of any schedule change.

(Ord. passed 8-17-87; Am. Ord. passed 10-7-91; Am. Ord. passed 8-16-93; Am. Ord. 4-15-96; Am. Ord. 2014-12-03, passed 12-1-14) Penalty, see § 10.99

§ 96.04 YARD WASTE COLLECTION REQUIREMENTS.

As a part of the town's monthly solid waste fee, the town shall collect yard waste placed curbside in accordance with this subchapter each week.

(A) Limbs up to four inches in diameter are limited to six feet in length. Limbs greater than four inches in diameter but less than 10 inches in diameter shall be collected only if cut into lengths of two feet or less. Limbs greater than 10 inches in diameter will not be collected. Limbs shall be stacked neatly behind the curb with all sawed ends facing the street.

(1) Piles of limbs and other yard waste placed curb-side for collection shall be no greater than six feet in depth from the curb to the back of the pile, no greater than three feet high, and no greater than six feet wide.

(2) Piles of limbs meeting the specified dimensions will be collected under the base collection fee.

(a) Limbs exceeding the specified dimensions (size) in § 96.04(A) above will not be collected and shall be considered in violation of this subchapter.

(b) A volume of limbs greater than the size specified in § 96.04(A)(1) above shall be subject to a special collection fee.

(c) In the event of force majeure, the Town Council may act to suspend special collection fees associated with limb collection for a specified time period.

(B) (1) Except as specified in § 96.04(C) below, yard waste (other than limbs but including leaves, grass clippings, pine straw, shrubbery, shrubbery clippings, other small natural waste materials) shall be containerized in ~~clear plastic bags, boxes, or other plastic/metal containers~~ reuseable plastic tote boxes or waste bins that are clearly labeled as "Yard Waste" (no greater than ~~50~~ 32 gallons each) and shall be placed curbside for collection once per week. Standard yard waste collection service shall be included as part of the monthly solid waste fee.

(2) Special collection fees shall be assessed for collection of all yard waste exceeding the dimensional standards established by this subchapter. In the event of force majeure, the Town Council may act to suspend special collection charges for a specified time period.

(C) Each year the town shall publish a schedule for the collection of loose leaves on the town's website. During loose leaf collection residents are relieved of the responsibility for containerizing leaves and may place leaves in the area generally located between the edge of the street and the sidewalk or ditch (not in the gutter or drainage ditch).

(1) Leaves shall be free of sticks, limbs, rocks, soil and other debris. If leaves are mixed with other debris, they will not be collected. Mixed piles of debris and leaves must be separated before collection.

(2) Customers who containerize leaves can expect their leaves to be collected on the scheduled yard waste collection day each week.

(3) Loose leaf collection shall not follow a set daily schedule except that each residence shall receive one time per week, loose leaf collection during the defined season. The defined season shall be provided on the town's website.

(D) It is the responsibility of each customer to place yard waste so that it does not interfere with vehicular traffic on the street or pedestrian traffic on the sidewalk. Any customer found in violation of this requirement may be subject to assessments or fines by the town.

(E) The town shall not collect any building construction materials left by a contractor. It shall be the sole responsibility of said contractor to properly dispose of these waste materials.

(F) The town will not collect trees, stumps, limbs and general debris related to land-clearing operations. It is the sole responsibility of the contractor and/or owner to properly dispose of said materials.

(G) The town will not collect tree cuttings related to the work completed by a tree care professional (i.e., tree surgeon, tree trimmer and the like) hired by a residential customer, unless the cuttings comply with all requirements set forth in § 96.04(A).

(Ord. passed 8-17-87; Am. Ord. passed 10-7-91; Am. Ord. passed 8-16-93; Am. Ord. passed 4-15-96; Am. Ord. 2014-12-03, passed 12-1-14) Penalty, see § 10.99

TOWN OF CLAYTON
AMENDMENT TO THE CODE OF ORDINANCES
AMENDING CHAPTER 96, SECTION 96.02

BE IT HEREBY ADOPTED THAT THE TOWN COUNCIL FOR THE TOWN OF CLAYTON, NORTH CAROLINA amend the Clayton Code of Ordinances Chapter 96, Section 96.02 to read as follows:

§ 96.02 GARBAGE AND RECYCLING COLLECTION ROUTES AND SCHEDULES.

(A) Where the town provides collection of garbage and recycling, residential property owners or their tenants must use town collection services.

(B) Single-family residential customers will receive once per week curbside collection of garbage, and yard waste (i.e., limbs, grass clippings, plant trimmings), and collection of recyclable materials every other week.

(C) Multi-family residential customers will receive once per week collection of garbage and recyclable materials. It is the responsibility of the landlord to collect yard waste (i.e., limbs, grass clippings, plant trimmings).

(1) Multi-family developments will receive an equivalent level of solid waste collection service per unit for volume collected as compared to a single-family unit.

(2) Multi-family developments or complexes which cannot readily or practically be served with standard solid waste and recycling carts may be subject to a solid waste disposal surcharge, based on the actual cost to the town to serve the subject property with dumpsters.

(3) All new multi-family developments with more than eight units must have dumpster facilities. The town and the landlord may enter into an agreement for solid waste disposal facilities and services, or the landlord may enter into an agreement with a private solid waste contractor providing equivalent service.

(D) Non-residential customers are required to contract with a private solid waste contractor for garbage collection.

(E) To ensure an equitable and timely delivery of solid waste services residential areas shall be divided into collection routes. Each route shall receive garbage and yard waste collection service once per week and recyclable collection every other week. The day of service may change as routes increase or decrease in size, but not without written notice. Affected customers shall be notified in advance of changes to their service collection schedule.

(F) Normal service may be delayed due to extreme weather conditions, holidays, equipment breakdowns, or due to other unusual circumstances. In the case of holidays, general notice shall be provided in advance of any schedule change.

Duly adopted this 18th day of August 2025, while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM:

_____
Jim Cauley
Town Attorney

Ordinance #2025-08-09

TOWN OF CLAYTON
AMENDMENT TO THE CODE OF ORDINANCES
AMENDING CHAPTER 96, SECTION 96.04

BE IT HEREBY ADOPTED THAT THE TOWN COUNCIL FOR THE TOWN OF CLAYTON, NORTH CAROLINA amend the Clayton Code of Ordinances Chapter 96, Section 96.04 to read as follows:

§ 96.04 YARD WASTE COLLECTION REQUIREMENTS.

As a part of the town's monthly solid waste fee, the town shall collect yard waste placed curbside in accordance with this subchapter each week.

(A) Limbs up to four inches in diameter are limited to six feet in length. Limbs greater than four inches in diameter but less than 10 inches in diameter shall be collected only if cut into lengths of two feet or less. Limbs greater than 10 inches in diameter will not be collected. Limbs shall be stacked neatly behind the curb with all sawed ends facing the street.

(1) Piles of limbs and other yard waste placed curb-side for collection shall be no greater than six feet in depth from the curb to the back of the pile, no greater than three feet high, and no greater than six feet wide.

(2) Piles of limbs meeting the specified dimensions will be collected under the base collection fee.

(a) Limbs exceeding the specified dimensions (size) in § 96.04(A) above will not be collected and shall be considered in violation of this subchapter.

(b) A volume of limbs greater than the size specified in § 96.04(A)(1) above shall be subject to a special collection fee.

(c) In the event of force majeure, the Town Council may act to suspend special collection fees associated with limb collection for a specified time period.

(B) (1) Except as specified in § 96.04(C) below, yard waste (other than limbs but including leaves, grass clippings, pine straw, shrubbery, shrubbery clippings, other small natural waste materials) shall be containerized in reuseable plastic tote boxes or waste bins that are clearly labeled as "Yard Waste" (no greater than 32 gallons each) and shall be placed curbside for collection once per week. Standard yard waste collection service shall be included as part of the monthly solid waste fee.

(2) Special collection fees shall be assessed for collection of all yard waste exceeding the dimensional standards established by this subchapter. In the event of force majeure, the Town Council may act to suspend special collection charges for a specified time period.

(C) Each year the town shall publish a schedule for the collection of loose leaves on the town's website. During loose leaf collection residents are relieved of the responsibility for containerizing leaves and may place leaves in the area generally located between the edge of the street and the sidewalk or ditch (not in the gutter or drainage ditch).

(1) Leaves shall be free of sticks, limbs, rocks, soil and other debris. If leaves are mixed with other debris, they will not be collected. Mixed piles of debris and leaves must be separated before collection.

(2) Customers who containerize leaves can expect their leaves to be collected on the scheduled yard waste collection day each week.

(3) Loose leaf collection shall not follow a set daily schedule except that each residence shall receive one time per week, loose leaf collection during the defined season. The defined season shall be provided on the town's website.

(D) It is the responsibility of each customer to place yard waste so that it does not interfere with vehicular traffic on the street or pedestrian traffic on the sidewalk. Any customer found in violation of this requirement may be subject to assessments or fines by the town.

(E) The town shall not collect any building construction materials left by a contractor. It shall be the sole responsibility of said contractor to properly dispose of these waste materials.

(F) The town will not collect trees, stumps, limbs and general debris related to land-clearing operations. It is the sole responsibility of the contractor and/or owner to properly dispose of said materials.

(G) The town will not collect tree cuttings related to the work completed by a tree care professional (i.e., tree surgeon, tree trimmer and the like) hired by a residential customer, unless the cuttings comply with all requirements set forth in § 96.04(A).

Duly adopted this 18th day of August 2025, while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Asst.
Acting Town Clerk

APPROVED AS TO FORM:

_____
Jim Cauley
Town Attorney

Ordinance #2025-08-10

Town Council Regular Meeting
Agenda Cover Sheet

Meeting Date	Agenda Location
August 18, 2025	NEW BUSINESS

Item Title

Resolution #2025-71 To Amend Resolution #2022-10 Granting Wastewater Treatment Capacity 2021-90-CZM: Ramblewood Village

Presenter(s)

Michael Worner, Senior Engineering Tech.

Suggested Action

Other - Town Staff recommends denial since there is not an approved major subdivision associated with ORD 2022-03-04 (Rezoning).
Suggested Action (2): Adoption of Resolution - Adoption of Resolution as attached.

Strategic Priorities Alignment

☐ Vibrant Downtown	☐ Desirable Amenities and Spaces	☒ Sustainable Infrastructure	☐ Mobility, Transportation, and Transit	☐ Diversified Economic Development	☐ Community Outreach and Engagement	☐ Public Safety

Public Hearing: No

If Approved, Will Document Require Recordation? No

Does This Item Require a Communication Plan?

- ☐ Public Hearing (Required by GS)
- ☐ Public Hearing (Not Required by GS)
- ☐ Newspaper Notice (Required by GS)
- ☐ Newspaper Notice (Not Required by GS)
- ☐ Public Forum/Input Session
- ☐ Press Release
- ☐ E-News Distribution
- ☐ Website
- ☐ Social Media
- ☐ Survey

☐ Special Mailing ☒ None Required

Summary

The Ramblewood Village has made an application for Town of Clayton Wastewater Allocation to support its new mixed residential located at 13401 Clayton Blvd (Rezoning 2021-90-CZM) in Clayton, NC. The applicant requests a wastewater allocation of 34,650 gallons per day. Per Town of Clayton Wastewater Allocation Policy, requests greater than 10,000 gpd must be approved by Town Council.

Funding Source

N/A

Corresponding Documentation

Rambleeood Village Wastewater Resolution admendment

Submitted By: Michael Worner, Engineering

Reviewed By:

Courtney Tanner, Deputy Town Manager	Approved - Aug 14 2025
Heidi Holland, Town Clerk	Approved - Aug 14 2025

RESOLUTION 2025-71 TO AMEND RESOLUTION 2022-10 GRANTING WASTEWATER TREATMENT CAPACITY 2021-90-CZM: RAMBLEWOOD VILLAGE

WHEREAS, the Town of Clayton operates a wastewater treatment plant known and permitted as the "Sam's Branch Water Reclamation Facility"; and

WHEREAS, said facility is permitted to treat a maximum average of 2.5 million gallons daily; and

WHEREAS, the Town of Clayton holds several interlocal agreements which secure additional wastewater treatment capacity from other available sources; and

WHEREAS, the Town of Clayton is constructing a new wastewater treatment facility permitted to treat up to 6 million gallons daily and expected to be completed by early 2026; and

WHEREAS, the North Carolina Department of Environment Quality (NCDEQ) regulates, reviews, and permits flow tributary to newly extended or installed wastewater treatment collection facilities tributary to the Town of Clayton system; and

WHEREAS, flow from sanitary sewer customers tributary to existing lines owned and operated as part of the Town of Clayton is bound to abide by the permitted average daily flow at the Sam's Branch Water Reclamation Facility in conjunction with other available sources and consistent with interlocal agreements regarding wastewater treatment; and

WHEREAS, Town Council approved Resolution 2022-10, granting wastewater treatment capacity to 2021-90-CZM: Ramblewood Village on March 21, 2022; and

WHEREAS, the allocation granted under Resolution 2022-10 has since expired in accordance with its terms and conditions;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE TOWN COUNCIL FOR THE TOWN OF CLAYTON that Resolution 2022-10 is hereby rescinded, and the following is found:

1. The Town of Clayton has, according to the most recent accounting, sufficient excess, and unallocated treatment capacity to approve additional allocation subject to the completion of the Sam's Branch Wastewater Reclamation Facility.

2. Such available capacity may be made available to users in accordance with regulatory and legal parameters established to ensure satisfactory treatment plant operation.

3. A total allocation for wastewater treatment capacity is granted in the amount of 34,650 gallons per day (GPD).

4. Allocation for wastewater treatment capacity will be allotted accordingly unless otherwise modified by the Engineering Director due to treatment capacity availability and regulatory requirements at time of permitting. In the event treatment capacity is unavailable at time of permitting, the Engineering Director will make a good faith effort to execute project permits and forms as soon as treatment capacity is available.

5. Said allocation is approved subject to and conditioned upon review and approval of all required regulatory processes.

6. Said allocation is non-transferable, non-assignable, and made for the projects as described and for the noted location unless explicitly approved by the Town of Clayton.

7. Said allocation may be revoked or reclaimed in accordance with the policies of the Town of Clayton as adopted or amended now or in the future. No property right is conferred with the granting of an allocation except as otherwise explicitly allowed by policy, ordinance, or action of the Town of Clayton.

8. Said allocation is subject to payment of applicable fees in accordance with adopted ordinances, policies, and fee schedules of the Town of Clayton.

9. Said allocation is subject to expiration one (1) year from the approved date if the project has not progressed in construction plan approval, building-permit approval, or on-site construction. Upon request in writing, the Engineering Director may grant a one (1) year extension.

10. This resolution solely pertains to the granting of wastewater treatment capacity. It does not guarantee the availability or adequacy of wastewater transmission or conveyance capacity. Transmission capacity may be limited or conditioned by the status of downstream infrastructure, system hydraulics, or required improvements, and may also be subject to the terms and constraints of agreements with external or adjacent partner agencies. Any necessary upgrades for transmission shall be the responsibility of the applicant and shall comply with all applicable standards, regulations, and approvals.

11. The original allocation under Resolution 2022-10 is acknowledged as expired and is now re-approved under this resolution.

Duly adopted this 18th day of August 2025, while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Michelle Snyder, Executive Assistant
Acting Town Clerk