



AGENDA

Wednesday, January 5, 2022: 6:00 PM

Town Council Agenda Meeting

**C. Michael Haney Community Room: Southern Pines Police Department
450 W. Pennsylvania Ave**

1. CALL TO ORDER

2. TOWN MANAGER'S COMMENTS

3. REVIEW PUBLIC HEARING APPLICATIONS FOR UPCOMING BUSINESS MEETING AGENDA

a. SU-02-21 Patrick's Pointe

On behalf of Francis Maser, Mr. Bob Koontz, of Koontz Jones Design, has submitted an application for a Special Use Permit for the new construction of a multi-family residential and office development.

The applicant is proposing to develop 13 apartment buildings with 276 multi-family residential units and one (1) office outparcel. The subject property is located along US Highway 1 North between West Connecticut Avenue and Midland Road and is comprised of three (3) parcels for a total of 25.4 acres of presently undeveloped, wooded land. A public hearing was held on this application on December 14, 2021. Council continued this item to the January 11, 2022 meeting.

b. OA-02-21 Various staff-initiated text amendments to UDO

The Planning Division of the Town of Southern Pines Community Development Department is proposing to amend the Unified Development Ordinance (UDO) with a variety of text amendments and are asking for Town Council review per UDO §2.17.

c. PD-10-21 Pinehurst Surgical Center Site 3N PDP

The applicant has applied for a preliminary development plan (PDP) for the purpose of developing a medical office building as phase 8 of the Morganton Park North. The medical office is a proposed 60,000-68,000 square foot building located on 5.19 acres. The property must be annexed as it is in the Town's ETJ, along S. Carlisle Street on the western side of Patriot Boulevard.

d. PD-11-21 Waterworks CDP Amendment

Mr. Kevin Lindsay has applied to amend the current approved CDP for the Waterworks development. The proposed project is a mixed-use development with up to 80,000 square feet of retail and/or offices and up to 80 residential units over four phases of development on +28.79 acres. The property is located on the East side of Central Drive/ NC HWY 22 between Warrior Woods Road and Aiken Road.

e. SU-03-21 Townhomes on S. Bennett St.

This application is for a Special Use Permit to develop 20 single-family attached dwelling units on the southeast side of S. Bennett Street between W. Wisconsin Avenue and W. Morganton Road.

4. REVIEW PROPOSED ACTION ITEMS FOR UPCOMING BUSINESS MEETING AGENDA

a. AX-07-21 Morganton Park South (Set Hearing Date)

Robert & Julie Van Camp and Morganton Road Enterprises, LLC have petitioned the Town for a voluntary annexation of a parcel totaling +54.94 acres. The parcels are identified as PIN 857100575720 and 857100572972 and are located between US 15-501 and W. Morganton Rd. The public hearing will be scheduled for February 8, 2022.

b. AX-08-21 Blue Farm Lots (Set Hearing Date)

Mr. Benjamin Stout is requesting voluntary annexation of five parcels totaling +4.10 acres, collectively known as Blue Farm, Section Three and located on NC Hwy 22. The public hearing will be scheduled for February 8, 2022.

5. REVIEW PROPOSED CONSENT AGENDA FOR BUSINESS MEETING

a. Appointment to Library Advisory Board

The Library Advisory Board recommends that Council appoint Carrie Dugas. Ms. Dugas will fill the seat held by Jeff Hutchinson, who has served the maximum two full terms. If appointed, Ms. Dugas' term will be January 1, 2022 through December 31, 2024.

b. Approve Ordinances Amending the FY 21-22 Budget

- 1. \$43,250 insurance reimbursement to Police Dept.**
- 2. \$2,500 donation monies transferred to Fire Department**
- 3. \$8,060 donation monies transferred to Library**
- 4. \$19,528 transfer from Fund Balance to Legislation**

These budget amendments will allocate donations received to the fire department and library, as well as an insurance reimbursement to the police department. Additionally, funds will be transferred from Fund Balance to Legislation to cover the invoice for the primary election.

6. COUNCIL UPDATES & DISCUSSION

a. Membership Qualifications - Appearance Commission & Library Board

Staff would like to discuss some recommendations related to the Appearance Commission and Library Advisory Board, such as eliminating term limits and other restrictive membership qualifications.

b. FFCRA Voluntary Extension

The Town voluntarily extended the FFCRA program through December 31, 2021. With the surge of the Omicron variant, staff recommends that Council consider an extension through at least March 31, 2022.

7. ADJOURNMENT

Meetings/work sessions of the Southern Pines Town Council are now available on the Town's [YouTube channel](#). Video of the Town Council meetings will be live streamed on the channel for viewing either during the meetings or after they have concluded. Please note, the video is provided only for the purposes of viewing the meetings; public comments or questions are not accepted via the live stream. To receive notifications when new content is published, please "subscribe" to the Town's channel at <https://bit.ly/3hXx2Qk>

Agenda Item

To: Reagan Parsons, Town Manager

From: Suzy Russell, Planner II

Subject: SU-02-21 Special Use Permit; New construction of a 276-unit multi-family residential and office development located along US Highway 1 North between West Connecticut Avenue and Midland Road.

Date: January 11, 2022

I. SUMMARY OF APPLICATION REQUEST:

On behalf of Francis Maser, Mr. Bob Koontz, of Koontz Jones Design, has submitted an application for a Special Use Permit for the new construction of a multi-family residential and office development. The applicant is proposing to develop 13 apartment buildings with 276 multi-family residential units and one (1) office outparcel. The subject property is located along US Highway 1 North between West Connecticut Avenue and Midland Road and is comprised of three (3) parcels for a total of 25.4 acres of presently undeveloped, wooded land. The subject properties are identified as PIN: 858214321933 (PARID: 00039174), PIN: 858217214672 (PARID: 00032830), PIN: 858217213440 (PARID: 00032829). The property owner for all three parcels according to the Moore County tax records is Maser, Francis T Trustee.

II. TOWN COUNCIL ACTION - REQUEST TO CONTINUE:

On December 14, 2021 the Town Council opened the public hearing at their Regular Meeting for application SU-02-21. After hearing from staff, the applicant and those representing the applicant, as well as the public, the Town Council per UDO §2.12.1, continued the SU-02-21 matter to the January 11th, 2021 regular meeting of the Town Council to allow for additional research or review to evaluate the issues presented.

III. PLANNING BOARD ACTION:

At the November 18th, 2021 Regular Meeting of the Planning Board, the Planning Board opened the preliminary forum per UDO §2.5.2. With five members present, Mr. Andy Bleggi and Mr. Benjamin Greene being absent, the Planning Board heard from staff as well as those in attendance regarding application SU-02-21. Ms. Suzy Russell, planner II, presented a review of the special use permit application. Ms. Russell reviewed details of the project and discussed compliance with the applicable standards and criteria found within the Unified Development Ordinance (UDO).

Mr. Nick Robinson, the applicant's attorney, spoke to the board and presented Mr. Logan Burnett as the applicant, Mr. Bob Koontz as the land planner, Mr. Travis Fluitt as the traffic

engineer and Mr. Frank Dean as the MAI Appraiser. Each witness spoke about the project as related to their profession.

The Board opened the forum for public comment. Approximately 10 residents of Southern Pines spoke in opposition to the project. After hearing comments from those wishing to speak, the Planning Board closed the preliminary forum and proceeded with discussion. During discussion, a variety of issues were discussed that the Planning Board wished to forward to the Town Council.

After discussing the public's testimony, the Planning Board made the following motion:

I move to adopt the following for transmission to the Town Council as a result of the November 18, 2021 Preliminary Forum on application SU-02-21, Patrick's Pointe:

The information presented at the forum indicated that the following issues be considered in applying the criteria for a SUP to application SU-02-21:

1. Upon review of the criteria for a Special Use Permit as found in UDO §2.21.7 (A-F) the Planning Board found the SU-02-21 application inconsistent with criteria (B), (E) and (F) for the following reasons:

- (B) *The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted; The density, scale and use appears to be incompatible with the surrounding neighborhood.*
- (E) *The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare; In regard to safety and 2100 daily trips per day,*
 - There is no acceleration lane on Route 1
 - There will be increased traffic on side streets
 - The northern portion of the Service Rd is not going to be improved
 - There are currently school bus safety issues and this will only make them worse
- (F) *The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use.*

The Town Council should consider there was a large number of residents that border this property that were concerned that the quality of their life and impact on the surrounding neighborhood would adversely affect them. They do not believe that the public interest and welfare supporting the proposed use outweighs the interests of the residents that showed up and stated their concerns at the hearing.

In addition, the following concerns were raised during the forum, but do not seem to apply in determining whether the SUP criteria are satisfied:

1. If approval is warranted the Planning Board requests that the buffer be improved with increased vegetation and a barrier wall on the side of the rear bordering neighborhood.

Pursuant to NCGS §160D-301(b)(6), the Town Council is reminded that although the Planning Board forwarded this list of issues for the Council's consideration, no part of the Preliminary Forum held by the Planning Board may be used as a basis for the Council's decision on SU-02-21.

IV. PROJECT INFORMATION:

A. Property Owner & Applicant Information:

- i. Property Owner:**
Francis Maser
PO Box 1133
Southern Pines, NC 28387
- ii. Applicant:**
1700, LLC
Logan Burnett
2601 South Bayshore Drive
17th Floor
Miami, FL 33133
- iii. Authorized Agent:**
Koontz Jones Design
Bob Koontz
150 S Page Street
Southern Pines, NC 28387

B. Project History and Site Information:

- i. Location:**
The subject properties are located along US Highway 1 between W. Connecticut Avenue and Midland Road. (See Figure 1 below).
- ii. Zoning:**
The sites are currently zoned Office Service (OS) and Residential Mixed Housing (RM-2). (See Figure 2 below).
- iii. Future Land Use Map Designation:**
One subject property is designated as Commercial on the Future Land Use Map. *The Commercial designation applies to all land dedicated to retail, professional*

office, or other primarily non-residential, commercial use. It includes the Downtown portions along Broad Street and Pennsylvania Avenue, the regional commercial corridor on US 15/501, and all commercial land in between. Higher density residential may be incorporated into mixed-use developments within areas designated for this future land use category.

The other two subject properties are designated as Residential on the Future Land Use Map. *This designation encompasses the majority of Southern Pines' residential land, providing for single-family and attached housing at development densities ranging from one unit per acre in areas that are less intensively developed to up to twelve units per acre in places that are clearly more urban. Elementary schools, civic uses, parks and neighborhood scale commercial services may be authorized through the rezoning process without amending the future land use map. (See Figure 3).*

[illegible]

[illegible]

V. STAFF REVIEW:

A. Application Review Dates:

- TRC Review (US 1 Village): August 17, 2021
- Special Use Permit SU-02-21 and Major Subdivision Preliminary Plat S-41-21 Applications Submitted: September 14, 2021
- SU-02-21 and S-41-21 Applications Withdrawn: September 29, 2021
- Special Use Permit SU-02-21 and Major Subdivision Preliminary Plat S-41-21 Applications Submitted: October 11, 2021
- S-41-21 Application Withdrawn: October 15, 2021
- Application Incomplete: October 15, 2021
- Application Complete: October 22, 2021
- Notice of Planning Board Public Hearing:
 - Posted On-site: September 27, 2021
 - Mailed: October 29, 2021
 - Internet: October 29, 2021
 - Published: October 29, 2021
- Planning Board Agenda Meeting: Meeting Not Held
- Planning Board Preliminary Forum: November 18, 2021
- Town Council Agenda Meeting: December 8, 2021
- Town Council Regular Meeting: December 14, 2021 CONTINUED
- Town Council Regular Meeting: January 11, 2021

B. Process of Review:

The procedures for review and approval of a Special Use Permit, per UDO §2.21 establishes a process and standards to approve certain uses that, because of unique characteristics or potential impacts on adjacent land uses, are not permitted in zoning districts as a matter of right.

C. Criteria and Standards for Review:

The criteria for review for this Conditional Use Permit application submittal and approval are as follows:

- Special Use Permit UDO §2.21.7 (A-F)
- Office/Service Zoning District Standards UDO §3.5.11
- Residential Mixed Housing RM-2 Zoning District Standards UDO §3.5.7
- Watershed Protection Overlay District Standards UDO §3.6.8
- Urban Transition Highway Corridor Overlay Standards UDO §3.6.5 (UTHCO)
- Multi-Family Development Standards UDO §4.10.8
- Various Standards UDO Chapter 4

D. Staff Comments:

Compliance with the UDO:

i. Compliance with Special Use Permit – UDO §2.21.7 (A-F):

A special use is permitted only if the applicant demonstrates that:

- A. *The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;*

Tract 1 is in the OS – Office / Service zoning district. The applicant is proposing the multi-family land use falls under land use code 1151 and is an allowed land use only after approval of a Special Use Permit. The applicant is also proposing Finance and Insurance, Real Estate Services, Intellectual Property Rental, Business, Professional, Scientific, Technical and Administrative services office land uses as allowed in the OS zoning district on this tract. The office/service land use is only allowed on a .91 acre outparcel located on Tract 1. Tract 2 is in the RM-2 – Residential Mixed Housing zoning district. The applicant is proposing multi-family on this tract.

The OS zoning district development standards are as follows:

Maximum Height	35'
Front Setback	15'
Side Setback	20'
Rear Setback	20'
Lot size for 1 DU	10,000 sq. ft.
Additional Lot size per Additional DU	3,600 sq. ft.

The RM-2 zoning district development standards are as follows:

Maximum Height	40'
Front Setback	25'
Side Setback	10'
Rear Setback	30'
Lot size for 1 DU	10,000 sq. ft.
Additional Lot size per Additional DU	6,000 sq. ft.

Because the subject properties are located in the Urban Transition Highway Corridor Overlay, the applicant is required to comply with these overlay standards:

Maximum Height	35'
Building Setback	75'
Parking Area Setback	50'
Landscape Buffer	50'
Side and Rear Yard Buffer	50'
Maximum Built Upon Surface	65%
Maximum Building Footprint	30%

The applicant has provided setbacks in the zoning information box on the site plan that reflect the OS and RM-2 zoning district standards above. The applicant also shows on the site plan drawing

they are meeting the Urban Transition Highway Corridor Overlay Standards. The applicant must meet the UTHCO zoning standards and is compliant with setback and buffer standards other than the RM-2 property located to the west of West Vermont Avenue. The applicant has provided in the property information box that they have a total of 48.4% impervious and stated at the Planning Board Regular Meeting that they have 15.5% building footprint coverage of the 30% allowed.

Because the applicant has provided that they will not be requesting a rezoning, the OS Tract and the RM-2 Tract are two separate pieces of property, if these properties have not been combined into whole tracts they must be before moving to site plan approval.

Tract 2 must provide a 50' buffer along the northwestern lot line because this property is within the UTHCO.

Tract 1 fully combined will be 22.85 acres for a total of 995,346 square feet with a total of 274 DU allowed.

Tract 2 fully combined will be 2.56 acres for a total of 111,514 square feet with a total of 17 DU allowed.

Tract 1 contains a .91 acre outparcel for a proposed office development. These 39,640 square feet must be removed from the total 995,346 square feet because this acreage cannot be counted toward the allowed multi-family density and then also be counted toward the future office development. Therefore, removing the .91 acre from the total square feet would decrease 11 DU from the total 274 allowed on Tract 1. The new total of DU allowed would be 263 DU for Tract 1.

Tract 1 has 263 allowed DU and Tract 2 has 17 allowed DU for a total of 280 DU combined. The applicant is requesting 276 DU. The applicant generally appears to be compliant with density.

The total minimum parking required for the multi family land use totals 497 parking spaces. This total is reached by following the minimum number of required parking spaces table found in the UDO, Exhibit 4-6. The applicant is requesting to provide 554 parking spaces. The subject property falls within the UTHCO and the HCO sets a maximum parking standard. This standard however considers square footage of a building, and does not follow the calculations found in Exhibit 4-6.

A watershed protection permit would be granted with this application. The watershed protection permit that has been submitted is to allow up to 70% impervious surface. Because this property is within the UTHCO the maximum of impervious allowed is 65% and therefore the correct amount of impervious allowed for this project will be 65%.

- B. The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;*

The subject properties are currently wooded and are located on the service road adjacent to US 1 Highway to the North and West. To the East of the properties borders the well-established RM-2 neighborhoods, Village in the Green and Village in the Woods and Village by the Lake. To the South are more RM-2 lots. The mixed-use residential office development may offer a transition from the RM-1 neighborhood to the highway and does not appear to planning staff to injure property in the immediate vicinity in a manner like some other more intensive land uses. This type of growth and change may be less impactful to the quality of the existing neighborhood and maintains compatible scale and intensity of development. Planning staff finds that the applicant appears to be generally consistent with these criteria. Planning staff does recommend that Town Council should carefully consider testimony provided at the public hearings and compare and contrast that testimony with staff's review of the application in evaluation of consistency with the standards.

- C. Adequate public facilities shall be provided as set forth herein;*

The subject property has access to public sewer and water.

- D. The proposed use shall not impede the orderly Development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;*

The development provides open space, buffers and appropriate building scale. The mixed use residential and professional office development is located along the highway corridor and provides for compatibility by being a transition within the Office Services zoning district and a single-family residential zoning district. The RM-2 zoning district is completely compatible with the surrounding RM-

2 zoning district and adheres to the district development standards. The applicant appears to be generally consistent with these criteria.

- E. The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare;*

The scale, orientation and intensity of buildings appears to planning staff to be compatible with adjacent development and will help to minimize negative visual, noise and traffic impacts of the highway. Of all the uses possible for the OS and RM-2 zoning districts, the proposed mixed use residential and office uses accommodate a mix of housing and non-residential development required to serve this neighborhood. The applicant appears to be generally consistent with these criteria but the Town Council should carefully consider testimony provided at the public hearings and compare and contrast that testimony with staff's review of the application in evaluation of consistency with the standards.

- F. The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use*

The proposed mixed-use residential and office development may be of more benefit to the surrounding neighborhood than other land uses allowed in the current Residential and Office Services zoning districts. The proposed development is generally compatible with the public interest and welfare based on the current zoning. The applicant appears to be generally consistent with these criteria. Town Council should carefully consider testimony provided at the public hearings and compare and contrast that testimony with staff's review of the application in evaluation of consistency with the standards.

ii. Compliance with Multi-Family Development Standards, UDO §4.10.8:

The development standards in this section may be modified pursuant to a PD or Special Use Permit approval per UDO §4.10.8 (A)(3).

- A. The application appears to be generally compliant with the standards as found in Section A, *applicability*, of the multi-family development standards found in UDO §4.10.8
- B. The applicant has deviated from (B) (3) and has stated they are unable to place dwellings in locations that face each other across common landscaped spaces with buildings no closer than 30'. UDO §4.10.8 (B) (3) states: *where practical, dwellings should be located to face each other across common landscaped space with buildings no closer than 30 feet.*

- C. The applicant has deviated from (C) (2) and has stated they are unable to group the buildings in clusters.
UDO §4.10.8 (C) (2) states: *group buildings in clusters.*
- D. The application appears to be generally compliant with the standards as found in Section D, *pedestrian improvements*, of the multi-family development standards found in UDO §4.10.8.
- E. The applicant has deviated from (E) (2) and has stated they are unable to provide parking that does not separate dwelling units from common open space.
UDO §4.10.8 (E) (2) states: *to the greatest extent practicable, parking shall not separate dwelling units from common open space.*
- F. The applicant has deviated from (F) (3) and has stated they are unable to configure common open space in square areas with sides of at least 100'.
UDO §4.10.8 (F) (3) states: *common open space shall be configured in square or nearly square areas with sides of at least 100'.*
The applicant has deviated from (F) (6) and has stated they are unable to provide play areas within a five (5) minute walk from each dwelling unit.
UDO §4.10.8 (F) (6) states: *for developments with more than 20 dwellings, provide on-site; well equipped and challenging play areas for school age children within a five (5) minute walk from each dwelling unit. (a) provide places for school age children to sit. (b) where possible include a space for ball games on site (minimum 80 feet x 40 feet.)*
The applicant has deviated from (F) (6b) and has stated they are unable to provide a space for ball games on the site. SEE ABOVE.

Staff has evaluated the comments provided from the applicant explaining their reason to deviate from the above standards and has determined that because of the shape of the subject property the applicant would be unable to meet the above standards and their request to deviate seems reasonable. Also, the verbiage in (B) (3) and (E) (2) are relative and are not absolute standards.

iii. General Staff Comments

- The subject property is within the High-Quality Watershed and will need has stated they are unable to 5/70 exemption, which they have requested with this Special Use Permit application. The maximum built upon surface is regulated to 65% in the Urban Transition Highway Corridor Overlay.
- The applicant is required to apply for a sign permit with the Town of Southern Pines if they propose signage.
- The applicant shall meet all applicable landscape, parking, lighting and building design requirements found in Chapter 4 of the UDO.

- This development will be subject to permitting through the Inspections Department and will be required to submit for site plan review. All state level development regulation and the applicable development regulations in the Unified Development Ordinance (UDO) must be met prior to site plan approval.

E. Outside Agency Comments:

A request for comments from agencies was emailed to representatives of the Town of Southern Pines Engineering, Streets, Utilities, Fire and Recreation & Parks Departments as well as representatives of the North Carolina Department of Transportation, U.S. Fish and Wildlife Service and the Regional Land Use Advisory Commission. Any comments received after the publishing of this report will be forwarded to the Planning Board at the public hearing as an exhibit.

- Comments from the Department of Transportation were received on October 27, 2021. The comments state as follows:

SUBJECT: US 1 Multi-Family
Traffic Impact Analysis

Dear Mr. Fluitt:

Thank you for submitting the updated Traffic Impact Analysis for the subject development. The preliminary site plan and traffic impact analysis have been reviewed by District Staff, Division Staff, and Congestion Management in accordance with the Policy on Street and Driveway Access to North Carolina Highways. Based upon our review we offer the following comments for the subject access as it relates to access to NCDOT maintained roadways:

Note: Comments contingent upon the developer's proposed roadway improvements along the NE US 1 Service Road as detailed on Figure 2.2 Site Plan in the Analysis.

US 1 at US NE Service Road Access

- Provide an exclusive right-turn lane on northbound US 1 with 75 feet of storage and appropriate taper.

US 1 NE Service Road at Site Driveway #1, #2 and #3

- We agree with the TIA recommendations for the striping of the US 1 NE Service Road as indicated in the Analysis.

US 1 NE Service Road at US 1 NE Service Road Access

- We agree with the TIA recommendations to operate the eastbound approach (US 1 NE Service Road Access) as a free-flow movement with stop-control on both the northbound and southbound approaches.

Please incorporate the above comments into your planning. When the above comments have been addressed, please submit a driveway permit along with any necessary encroachment agreements to this office for review. Also, please be aware that future site expansion may result in further roadway improvements being required by the Department. If further information is needed, please advise.

Sincerely,



Matthew W. Kitchen, PE
District Engineer

CC: Patrick Norman, PE
B.J. Grieve, Town of Southern Pines
John Grant, PE
David Willett
Josh Brooks, PE
File

Revised comments have been attached and are a part of the TIA for the revision proposed by the applicant.

- Comments from the Regional Land Use Advisory Commission were received on October 28, 2021. The comments state as follows:
October 25, 2021 Following a review of the above referenced Special Use Permit and Major Subdivision by the RLUAC staff and Board of Directors for the properties listed above, and recognizing that our findings are non-binding on the Town of Southern Pines, the RLUAC Board of Directors finds that:
The issues of concern noted in the previous review of this project, prior to amendment and resubmission, are incorporated herein (see review letter dated October 6, 2021 for cases SU-01-21 and S-34-21). In reviewing the revised site plan, it is noted that a larger contiguous open space area is preserved on the northern part of the site in the current proposal. Based on the previously noted concerns, the reconfiguration of the site plan in this manner should produce a net positive outcome as compared to the previous plan, as this will allow for the preservation of a larger area that is currently forested with mature pines. This, in turn, better aligns the proposed development with the land protection goals of the Fort Bragg Compatible Use Rating System.
Thank you for allowing RLUAC to review this case.
John K. McNeill, Chairman Vagn K. Hansen II, AICP, Executive Director
- The Technical Review Committee at its November 9, 2021 meeting discussed the SU-02-21 project. Below are the comments received from the Town Engineer:

An updated TIA has been received and reviewed for this project. The TIA adequately addresses the requirements found in UDO §4.12 Transportation/Traffic Analyses. I do note that the TIA assumes new traffic will utilize the service road to bring traffic back towards Downtown. The requirement to coordinate the development with surrounding streets as noted in UDO §4.11.6. would redistribute traffic in a different manner, but it is my opinion that the analysis would not be impacted. The studied intersections all exceed the minimum level of service and the change in traffic distribution only changes which movements have to occur but not the total number of movements. The development currently proposes to connect to the existing sidewalk along W. Maine Avenue. The existing section of sidewalk only extends 1 block to N. Hale Street and does not connect to any other portion of the Town's existing pedestrian network. A connection to the existing sidewalk network is recommended and the nearest connection would be at the intersection of N. Hale Street and W. Vermont Avenue.

VI. ATTACHMENTS:

The following materials are provided as attachments to this staff memorandum:

1. Attachment A: Draft Findings of Fact
2. Special Use Permit Application
3. Special Use Permit Narrative
4. Special Use Permit Justification
5. Compliance with CLRP Narrative
6. Multi-Family Development Standards Narrative
7. Patrick's Pointe Justification
8. Existing Conditions Plan and Site Plan
9. TIA

VII. TOWN COUNCIL ACTION:

To either approve or deny a Special Use Permit application, the Town Council shall make findings of fact and conclusions to the applicable standards. The Town Council shall first vote on whether the application is complete and whether the facts presented are relevant to the case. The Town Council shall then vote on whether the application complies with the criteria as set forth in Section 2.21.7(A-F) Criteria for a Special Use Permit. The Town Council may choose one of the following motions or any alternative they wish:

I move to:

1. Adopt Attachment "A" of the staff report as our Findings of Fact regarding the proposed Conditional Use Permit SU-02-21.

2. Adopt Attachment “A” of the staff report as our Findings of Fact regarding the proposed Conditional Use Permit SU-02-21 with the following changes_____.

Next, the Town Council may vote on whether to approve, deny or approve with conditions the proposed Special Use Permit. The Town Council may choose one of the following motions, or any alternative they wish:

I move to:

1. Approve the Special Use Permit SU-02-21.
2. Deny Special Use Permit SU-02-21
3. Approve the Special Use Permit for SU-02-21 with the following additional conditions....

ATTACHMENT “A”
Draft Town Council Findings of Fact
Special Use Permit Application SU-02-21

Finding of Fact #1:

The Town Council finds that the application is complete and that the facts submitted are relevant to the case because the request for Special Use Permit approval has met the specified submittal requirements as required in the Town of Southern Pines UDO Appendices and the evidence submitted was sworn testimony by qualified experts or provided through substantiated documentation.

Finding of Fact #2:

The Town Council finds that the application complies with UDO §2.21.7 Criteria for a Special Use Permit, Criteria A, C and D and finds that the application does not comply with UDO §2.21.7 Criteria for a Special Use Permit, Criteria B, E and F in that:

A. The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;

1 The Town Council finds that the application SU-02-21 complies with all regulations of the
2 OS, RM-2 and UTHCO zoning districts development standards. The applicant is allowed
3 554 parking spaces and granted the watershed protection permit for 65% impervious
4 coverage.

B. The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;

5 The Town Council finds that the density, scale and use appear to be incompatible with the
6 surrounding neighborhood.

C. Adequate public facilities shall be provided as set forth herein;

7 The Town Council finds the subject properties have access to and can be served by TOSP
8 public facilities.

D. The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;

9 The Town Council finds that the proposed development is consistent with the existing
10 zoning standards. The mixed use residential and professional office development is located
11 along the highway corridor and provides for compatibility by being a transition within the
12 Office Services zoning district and multi-family residential zoning district.
13

E. The establishment, maintenance or operation for the proposed use shall not be detrimental to or endanger the public health, safety, comfort, or general welfare; and

14 The Town Council finds that in regards to safety and the addition of 2100 daily trips that
15 will be generated from this project, the following issues,

- 16 o There is no acceleration lane on Route 1
 - 17 o There will be increased traffic on side streets
 - 18 o The northern portion of the Service Rd is not going to be improved
 - 19 o There are currently school bus safety issues and will only become worse
- 20 are not just potential impacts to the neighborhood but they will impact US 1, Midland Road,
21 Pennsylvania Avenue and Saylor Street.

F. **The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use;**

22 The Town Council finds that there were a large number of residents that border this
23 property that were concerned that the quality of their life and impact on the surrounding
24 neighborhood would adversely affect them. They do not believe that the public interest
25 and welfare supporting the proposed use outweighs the interests of the residents that
26 showed up and stated their concerns at the hearing.



Special Use Permit

REQUIRED APPLICATION MATERIALS:

- ___ Application fee in the amount of **\$1,500.00 + \$25.00 per lot for a Major Subdivision**
- ___ Completed Application for a Special Use Permit signed by the applicant. Please do not leave anything blank and make sure that all of the information provided is correct.
- ___ Appointment of Agent, if applicable, signed by the property owner(s) and the agent.
- ___ List of Adjacent Property Owners: Please list all properties that are that are within two hundred (200) feet of the outermost boundaries of the subject property (**not counting streets, railroads or other transportation corridors**). Attach additional pages if needed. No fewer than ten (10) property owners shall be notified by mail.
- ___ Deed copy to provide proof of ownership and property boundaries.
- ___ Project description: Please tell us what currently exists and what changes you are proposing. Please attach written descriptions, maps, illustrations/renderings, photographs, material samples, etc. as necessary.
- ___ Written narrative: It is the responsibility of the applicant to demonstrate compliance with all applicable criteria. Please address all criteria listed in **UDO §2.21.7**. The list of criteria is attached.
- ___ Electronic copy (PDF) of all application materials submitted to plan@southernpines.net.

PLEASE SUBMIT ONLY ONE (1) COMPLETE SET OF ALL MATERIALS.

REVIEW AND APPROVAL:

1. Staff review: Planning staff will review the application and notify the applicant if additional information or materials are needed.
2. Public hearings: The applicant is expected to attend a public hearing on the application before the Planning Board and before the Town Council the following month. (Please refer to the **Application Processing Timeline** to determine the hearing dates.) The Planning Board will recommend approval, conditional approval or denial to the Town Council. The Town Council will consider that recommendation, as well as evidence and testimony presented, and approve, conditionally approve or deny the Special Use Permit.
3. Issuance of a Special Use Permit: If the request is approved by the Town Council, a Special Use Permit setting forth any conditions of approval will be issued to the applicant.

PLANNING DEPARTMENT
TOWN OF SOUTHERN PINES

plan@southernpines.net (910) 692-4003 www.southernpines.net

8-27-21



Special Use Permit Application

Fee: \$ _____

Date Paid: _____

Case No.: CU- _____

Project Information:

Street Address: EAST OF US HIGHWAY 1 BETWEEN W. VERMONT AVE & W RHODE ISLAND AVE

PIN: 858214321933; 858217214672; 858217213440

Parcel ID: 00039174; 00032830; 00032829

Site Size: 25.4 ACRES

Zoning: OS, RM-2

Applicant:

Name(s): 1700, LLC C/O LOGAN BURNETT

Email: LBURNETT@VOLTAGLOBAL.COM

Phone: 305-428-6504

Mailing Address: 2601 SOUTH BAYSHORE DRIVE, 17TH FLOOR MIAMI, FL 33133

Authorized Agent, if different from Applicant:

Name(s): KOONTZ JONES DESIGN C/O ROBERT KOONTZ

Email: BKOONTZ@KOONTZJONES.COM

Phone: 910-684-8487

Mailing Address: 150 S PAGE STREET SOUTHERN PINES, NC 28387

Legal Property Owner(s), if different from Applicant:

Name(s): FRANCIS T MASER, TRUSTEE

Email: FMASER@GMAIL.COM

Phone: 910-528-7649

Mailing Address: PO BOX 1133 SOUTHERN PINES, NC 28388

8-27-21

TO THE TOWN OF SOUTHERN PINES PLANNING BOARD AND TOWN COUNCIL:

I, the undersigned, do hereby make application to and petition the Planning Board and Town Council to grant a Special Use Permit as required by the Town of Southern Pines Zoning Ordinance. The following information is submitted in support of this application:

The property which is the subject of this application is located on the EAST side of US HIGHWAY 1 (St./Ave.), between W. VERMONT (St./Ave.) and W RHODE ISLAND (St./Ave.). The property has a frontage of 2930 feet and a depth of 650 feet.

The special use sought is based upon Section(s) 2.21; 3.7.2 of the **Town of Southern Pines Unified Development Ordinance**. The proposed use of the property is as follows:

TO DEVELOP MULTI-FAMILY RESIDENTIAL UNITS AND AN OFFICE OUTPARCEL

Date: 9/13/2021

DocuSigned by:
Logan Burnett
CDD528B5FF74493...

Applicant

**PLANNING DEPARTMENT
TOWN OF SOUTHERN PINES**
plan@southernpines.net (910) 692-4003 www.southernpines.net

8-27-21

APPOINTMENT OF AGENT

The undersigned owner(s), 1700, LLC, hereby appoint(s) KOONTZ JONES DESIGN as the exclusive agent for the purpose of making an application to the Town of Southern Pines for a Special Use Permit on the property described in the attached application. The owner(s) hereby agree that this agent has the authority to act for and on behalf of the owner(s) as follows:

1. to submit an application and required supplemental materials;
2. to appear at public meetings and give representation and comments on behalf of the owner(s);
3. to accept conditions or recommendations made by the Town of Southern Pines Planning Board and Town Council for the issuance of a Special Use Permit on the subject property; and
4. to act on behalf of the owner(s) without limitations with regard to any and all things directly or indirectly connected with or arising out of any application for a Special Use Permit under the Southern Pines Unified Development Ordinance.

This Appointment of Agent shall remain in effect until final resolution of the attached application.

Signed this 13th day of September, 2021.

DocuSigned by:
Logan Burnett
CDD528B5FF74493...

Property Owner

Property Owner

Agent

8-27-21

APPOINTMENT OF AGENT

The undersigned owner(s), FRANCIS T. MASER, hereby appoint(s) KUOMTZ JONES DESIGN as the exclusive agent for the purpose of making an application to the Town of Southern Pines for a Special Use Permit on the property described in the attached application. The owner(s) hereby agree that this agent has the authority to act for and on behalf of the owner(s) as follows:

1. to submit an application and required supplemental materials;
2. to appear at public meetings and give representation and comments on behalf of the owner(s);
3. to accept conditions or recommendations made by the Town of Southern Pines Planning Board and Town Council for the issuance of a Special Use Permit on the subject property; and
4. to act on behalf of the owner(s) without limitations with regard to any and all things directly or indirectly connected with or arising out of any application for a Special Use Permit under the Southern Pines Unified Development Ordinance.

This Appointment of Agent shall remain in effect until final resolution of the attached application.

Signed this 9th day of September, 2021.

Francis T. Maser Trustee
under the Francis T. Maser
Revocable Trust dated 1/1/2014
Property Owner

Property Owner

[Signature]
Agent

8-27-21

UDO §2.21.7. Criteria for a Special Use Permit

A Special Use Permit is permitted only if the Applicant demonstrates that:

- (A) The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;
- (B) The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;
- (C) Adequate public facilities shall be provided as set forth herein;
- (D) The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;
- (E) The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare; and
- (F) The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use.

8-27-21

**PATRICK'S POINTE
SPECIAL USE PERMIT NARRATIVE**

The development of the property described as the US 1 Village in the submitted exhibits is planned to be a new infill community within the existing downtown area of Southern Pines. The +/- 25.41 site located off of US Highway 1 and at the end of West Rhode Island Avenue is comprised of one large tract ("Tract 1") and one smaller, adjacent tract ("Tract 2"). Tract One is approximately 22.85 acres and is zoned Office/Service (OS). Tract 2 is approximately 2.56 acres and is zoned RM-2. The combined tracts are comprised of approximately 25.41 acres (the "Combined Tract"). Applicant does not propose any rezoning of the Tracts but merely seeks a conditional use permit for the Combined Tract, known as "Patrick's Pointe," that will allow the combination of multi-family uses along with office and service uses. Under the Southern Pines Unified Development Ordinance (the "UDO"), the OS zoning district is intended to "accommodate office and service uses as well as medium-density residential uses", which includes multi-family uses, as stated in Section 3.5.11 of the UDO. The RM-2 district accommodates single-family, single-family attached, and multi-family residential units. The underlying density on the project permits up to 291 residential dwelling units on the property and/or up to +/- 254,000 sf of office uses on the property, using a 10,000 sf per acre planning rule of thumb.

This conditional use permit application proposes 276 multi-family residential units and a +/- 0.91-acre office parcel. The development will meet the development standards for OS and RM-2 district projects as well as supplementary standards for multi-family development established in the Town's UDO, with modifications described in Exhibit D of this application. Adequate parking will be provided on site to meet UDO standards for multi-family and office uses. The main entrance to the site will be provided near the US 1 access location. The existing gravel service will be paved to NCDOT standards from the emergency access location on the north side of the property and tie back to West Connecticut Avenue. This street will be turned over to NCDOT and become a publicly maintained street. Access from US 1 and the public service road will provide the only vehicular access to the site. Pedestrian access gates will be provided at West Rhode Island Avenue and West Maine Avenue to allow residents to connect to the neighborhood street and pedestrian network for walking and biking to downtown Southern Pines. Sidewalks to downtown are available along West Vermont Avenue.

The multi-family development will consist of a total of 276 residential units with many shared amenities. These amenities will include a swimming pool, clubhouse building, children's play area, dog park and other park spaces. The property falls within a high-quality watershed and there is no floodplain. As a result, a watershed protection permit application has been submitted to allow for increased impervious surface and allow up to 70% impervious surface. Overall impervious surface to be developed on the property will fall well below the permitted 70%. Impervious surface and will not exceed 60%. This site is a residential infill location in the downtown of Southern Pines. Increased impervious surface in infill locations for residential development is consistent with the Towns Comprehensive Long-Range Plan (CLRP). See Exhibit C for additional information related to compliance with the CLRP.

Design elements for the project are described below.

- **Pedestrian Connectivity**

- Pedestrian connectivity will be provided throughout the community. Pedestrian access gates will be provided at West Rhode Island Avenue and West Maine Avenue to allow residents to connect to the neighborhood street and sidewalk network to walk and bike to downtown Southern Pines. The property is five (5) blocks from Broad Street and the West Maine Avenue and West Rhode Island Avenue gate connections are in close proximity to sidewalk connections on West Vermont Avenue, which lead downtown.

- **Parking Areas**

- The multi-family residential buildings will have surface parking at a ratio that meets the UDO standards. These standards are as follows from Section 4.5 of the Town's Udo:

Land Use	Minimum Vehicle Parking Spaces	Minimum Bicycle Parking Spaces
Multi-Family		
0-1 bedrooms	1 space per Dwelling Unit plus 1 space per 5 Dwelling Units for visitors	1 space per 10 Dwelling Unit
2-3 bedrooms	2 spaces per Dwelling Unit plus 1 space per 5 Dwelling Units for visitors	
4 or more bedrooms	2.5 spaces per Dwelling Unit plus 1 space per 5 Dwelling Units for visitors	

- Office uses will park per the UDO required standards in Section 4.5 based on the particular type of office use developed. Medical and general office uses park at different ratios per the UDO. The specific office use is yet to be determined for the office outparcel. When a site plan is brought forward and the specific use determined for the parcel, parking per the UDO standards will be provided.

- **Streets and Access**

- The main entrance to the site will be provided off the service road, near the US 1 access location. The existing gravel service road from the US 1 access location will be paved to NCDOT standards and tie back to West Connecticut Avenue. Two secondary access locations will be provided for emergency services along the service road and new pavement will continue to the northernmost emergency access location. Once improved and accepted, this street will be turned over to NCDOT and become a publicly maintained street. Access from US 1 and the public service road will provide the only vehicular access to the site. The main entrance to the property will not be gated, however, a gate may be provided at the emergency access location(s). If these locations are gated, appropriate emergency access controls will be provided as required by the Town of Southern Pines Fire Marshal.

- **Landscaping and Fencing**

- Landscaping will be provided as required by the Town of Southern Pines UDO, including plantings required by the Urban Transition Highway Corridor Overlay District. Much of the site is currently wooded. Due to the topography of the site, many trees within the property boundary will be removed.
- Planting buffers and screening will be provided on adjacent property boundaries where necessary and required by the Town's UDO. Effort will be made to preserve existing trees in the buffer areas of the project. Any tree save in these buffer areas may count toward planting credit as permitted in the UDO.

- **Open Space**

- Multi-family residential development is required to have 10% open space. The development will provide approximately +/- 41.3% (+/- 10.5 acres) open space as indicated on the preliminary plat hatching. This open space will be located in buffer areas, stormwater features, parks and amenity areas throughout the property as indicated on the preliminary plat. While usable open space is not required within the OS district, usable open space has been included for the multi-family in the amenity areas and totals 10% (2.55 acres) of the total open space. This number does not reflect areas with sidewalks and trails that would also be considered usable open space within the community.

- **Buffers/Setbacks**

- Buffers and setbacks will be provided at a minimum per the requirements of the OS district standards and Highway Corridor Overlay District. All setbacks will be met and in many instances the setbacks for the property exceed the required setback requirements. The standards of the overlay district in Section 3.6.5 of the UDO are significantly greater than those of the standard zoning district and are as follows:
 - All US 1 frontage requires a 75' building setback, 50' parking lot setback and 50' landscape buffer. Each of these standards will be met.
 - The OS district requires the following setbacks which will be met:
 - Front = 15'
 - Internal Side = 20'
 - External Side = 15'
 - Rear = 20'

- **Stormwater**

- Stormwater management best practices will be applied on the site as necessary and required to control stormwater runoff throughout the project. All stormwater will be handled on site in a series of ponds, basins or other devices.
- Stormwater devices may be located in buffer areas within the property.

- **Utility Service**

- Adequate water and sewer service can be provided by the Town of Southern Pines to service this development. Utilities are currently within close proximity, along the streets and adjacent properties near the proposed site or located directly on the property. All utilities on the site will be located underground.

- **Architectural Character**

- Multi-family residential units will be designed to fit the character of downtown Southern Pines. Design of the project is intended to blend into the surrounding area and add to the

surrounding neighborhood. It is also intended that the project will be visually appealing from US Highway 1. Materials are intended to be a mixture of brick and cementitious siding material that will blend with other downtown development.

- The project will comply with the Town of Southern Pines architectural standards and must obtain an Architectural Compliance Permit from the Town Council per the UDO. All multi-family and office structures will require approval of the Architectural Compliance Permit.
- **Signage**
 - A single subdivision sign for the multifamily development will be placed at the main entrance from US 1. In addition, a sign for the office outparcel will be provided on the parcel.
 - All signs will indicate the name of the community and/or business. Any additional directional or on-site signage for parking area, parks or amenities will follow the Town of Southern Pines sign standards in Section 4.6 for size, materials, and height.
- **Office Uses**
 - Office uses permitted for the outparcel will include the following, to the extent permitted by right under UDO Exhibit 3-15 (Table of Authorized Land Uses):
 - Finance and Insurance
 - Real Estate Services
 - Rental housing-related
 - Intellectual Property Rental
 - Business, Professional, Scientific, and Technical
 - Administrative Services

The descriptions and conditions described above will apply to the entire project as indicated in the Conditional Use Permit plan document.

EXHIBIT A

Patrick's Pointe Special Use Permit Justification

Below are listed the six (6) criteria required to approve a Special Use Permit application as described in Section 2.21.7 of the Town of Southern Pines UDO. Following the individual criteria is an explanation, indicated in red, describing how the project demonstrates compliance with each of these criteria.

A Special Use is permitted only if the Applicant demonstrates that:

(A) The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;

The property is currently zoned Office Service (OS) and RM-2 and would permit office and service uses as well as multi-family, single-family attached, and single-family detached residential development through a special use permit. Residential uses are permitted under the OS zoning classification at a density comparable to RM-2 density (10-12 dwelling units per acre). This density would allow for 274 residential units to be developed on the OS property (the Large Tract). Up to seven residential dwelling units per acre are allowed by right within the RM-2 zoning district. This density would allow for 17 residential dwelling units on the RM-2 property (the Small Tract). The combined total density for the properties would be 291 total residential units. Multi-family and single-family attached residential units are permitted at the proposed density through a Special Use Permit for the site. The proposed plan includes 276 total residential units, which complies with the regulations of the applicable zoning districts. The proposed development also complies with all other regulations within the UDO related to the OS district and proposed uses except for the supplemental use regulations for multi-family residential units (see Exhibit D for minor deviations). In addition, a +/- 0.91-acre office parcel has been provided on the property which is permitted within OS zoning district. This office parcel would permit for an office building and associated parking and provides for the mix of uses contemplated by the UDO for OS zoning districts.

(B) The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;

All structures will be designed to meet the standards for multi-family and office development described in UDO. Residential development will be designed to be compatible with the existing surrounding townhome residential neighborhood and other homes in the vicinity. Buildings will meet all UDO standards for building height.

Buffers will be placed along property boundaries that are shared with adjacent properties. Every attempt will be made to maintain existing trees throughout the development and especially in buffer areas.

US 1 BOUNDARY: The property falls within a Highway Corridor Overlay District which requires a 75' building setback, a 50' parking area setback and a 40' landscape buffer from US 1. The 40' landscape buffer area will be planted per the Town of Southern Pines landscape standards. To gain additional credit toward the Town's landscape requirements, efforts will be taken to maintain trees in this area as well. All landscaping will meet and/or exceed Town of Southern Pines requirements for landscaping within parking fields.

EASTERN BOUNDARY: Appropriate landscaping will be planted along the adjoining property boundaries on the east side of the property. These plantings will meet the Town's landscaping requirements and screen the development from adjoining properties. Landscape materials will be selected to match the existing area and maintain a natural appearance for the property that is in keeping with the character of the surrounding neighborhood and Southern Pines community. The plan works to transition density from the adjacent (to the east) townhome community by placing

EXHIBIT A

limited building development and large setbacks along the shared property boundary with the Village Green neighborhood. Residential multi-family buildings will act as a buffer and noise barrier to the existing townhome developments.

On page 2.4 of the Comprehensive Long-Range Plan (CLRP) under housing it states “Southern Pines residents recognize the importance and relevance of housing that is diverse, affordable and compatible with the neighborhood in which it is developed. The Town is committed to promoting these housing goals in all areas of the community.” The developer believes that the multi-family residential proposed for this neighborhood offers a variety and diversity of residential products within the surrounding neighborhood and downtown Southern Pines. This variety in housing options allows residents of Southern Pines to make housing decisions that fit their needs and lifestyle. This development is consistent with the context of the surrounding neighborhood and provides a buffer and transition of density from single-family attached, multi-family and other residential development surrounding the property as well as the office parcel located on US 1.

In addition, see the attached Compliance with CLRP Objectives document.

(C) Adequate public facilities shall be provided as set forth herein;

Public water and sewer utilities are readily available for the project, the cost of which will be borne by the developer. Water and sewer lines currently cross areas of the site. Parks, open spaces, trails, sidewalks, and amenities will be provided by the developer for the residents.

The main entrance to the site will be provided near the US 1 access location along the service road. The existing gravel service road from the US 1 access location will be paved to NCDOT standards and tie back to West Connecticut Avenue. Two secondary access locations will be provided for emergency services along the service road and new pavement will continue to the northernmost emergency access location. Once improved and accepted, this street will be turned over to NCDOT and become a publicly maintained street. Access from US 1 and the public service road will provide the only vehicular access to the site. The main entrance to the property will not be gated, however, a gate may be provided at the emergency access location(s). If these locations are gated, appropriate emergency access controls will be provided as required by the Town of Southern Pines Fire Marshal.

(D) The proposed use shall not impede the orderly Development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;

This is an infill project along the US 1 corridor in close proximity to downtown Southern Pines. All properties surrounding this property are zoned RM-2 and permit multi-family, townhome, and single-family detached development at a density of 5-7 dwelling units per acre. In addition, there are several similar parcels along the US 1 corridor that likewise are already zoned as OS and, thus, are likely to have similar office or mixed use improvements. This project will not impede the development of these surrounding properties in meeting their full development potential and meets the standards of the OS zoning district. The plan works to transition density from the adjacent (to the east) townhome community by placing limited multi-family development along the shared property boundary with the Village Green neighborhood and providing multi-family buildings closer to US 1, which will act as a buffer and noise barrier to the new and existing townhome developments. In addition, the residential uses will provide an appropriate transition to the higher intensity office development along US 1.

Patrick's Pointe and the improvements therein will not substantially diminish or impair the property values within the neighborhood.

EXHIBIT A

(E) The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare; and

This office and residential development will continue the existing development pattern of the surrounding neighborhood, which is all zoned RM-2 Residential Mixed Housing (5-7 dwelling units per acre). This project meets all standards set forth in the Town's CLRP and UDO pertaining to land use and density. Based on the standards set forth in these publicly reviewed and approved documents, this project will not be detrimental to or endanger the public health, safety, comfort, or general welfare of the surrounding neighborhood or downtown Southern Pines. The development incorporates many of the goals of the CLRP.

Traffic volumes will not endanger the residents of the Town of Southern Pines as all vehicular access will be provided to the site via US 1 and the associated service road which connects to Connecticut Avenue. Access to the property will not connect to the surrounding neighborhoods. Low additional traffic volumes on local Town streets will not create any adverse impact on existing neighborhoods or streets.

Project buffers will be provided around the entirety of the property and planted to the Town of Southern Pines standards and requirements. These buffers, due to the projects location within the Highway Corridor Overlay District are significantly increased. This allows for additional screening and setbacks far beyond those required in the adjoining RM-2 Mixed Housing (5-7 dwelling units per acre) zoned properties. These standards protect adjoining property owners from any detrimental impacts.

(F) The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use.

The proposed use and project density have already been established in both the Town of Southern Pines CLRP adopted on March 8, 2016, and incorporated in the Town of Southern Pines UDO under the OS zoning district classification. This proposal does not seek to deviate from the permitted density or uses prescribed in these documents. These documents were developed as a result of many hours of public input, hours of staff review and hours of Town Council deliberation in order to protect the public interest and welfare of the community.

Taking the existing zoning into account, the allowed uses therein and the goals, strategies and vision of the CLRP for this area, the public interests supporting the proposed uses outweigh any individual interests that may be adversely affected by the proposed use.

This project incorporates many goals and objectives of the CLRP and establishes a development pattern that is consistent with these planning and guiding documents. All properties surrounding this development are zoned for multi-family development based on the CLRP and UDO. This proposed office and multi-family development is consistent with these zoning classifications and shall serve as a buffer between the existing multi-family zoned parcels and US 1. The development pattern also meets the land use goals defined by the CLRP as it is an infill project and makes efficient use of the towns existing infrastructure and remaining high density watershed allocation to encourage housing diversity within Southern Pines, near downtown. This housing diversity and efficient use of land will be needed to meet the demands of projected growth of Southern Pines and the surrounding area.

Of the potential uses permitted by the CLRP and the UDO's OS district for this parcel, the proposed residential uses, which buffer adjacent properties, are significantly less intense than most others. Other by-right uses for this zoning district (such as hotels, daycares and private fitness clubs) are more intense, use more acreage, provide less open space, and generate more traffic than the proposed multi-family use and density. All access to this property will be provided via US 1 and the associated service road which will limit traffic impacts and bypass the surrounding neighborhood to the greatest extent possible. Any

EXHIBIT A

connecting utility and roadway infrastructure, including the paving of the NCDOT service road will be extended and connected as necessary by the developer and dedicated to the Town of Southern Pines.

Based on the property's proximity to downtown, residential development and a limited amount of office use is appropriate for the surrounding area and location along US 1. Residents of this development will work, seek entertainment, and shop in downtown Southern Pines. These additional residents will contribute to the character and vibrancy of the downtown center.

EXHIBIT C

Patrick's Pointe Compliance with Comprehensive Long Range Plan Objectives

Below is a list of Comprehensive Long range Plan (CLRP) objectives that the design of this project incorporates into the proposed development. The item identification at the beginning of each objective refers to the item number as referred to in the CLRP goals. Bold text represents the goal of the section as adopted on March 8, 2016.

G-11.Housing. Facilitate the provision of a broad range of housing choices that serve residents of all abilities and incomes.

G-13.Growth. Ensure that services, facilities and land resources accommodate anticipated growth while enhancing the quality of life for Southern Pines' residents.

P-2. Neighborhoods. Ensure that new development and redevelopment are compatible with the overall scale, architectural, transportation and public-space characteristics of the neighborhood in which it occurs.

The addition of multi-family apartments in this location will complement the wide availability of single family housing in Southern Pines, thus achieving the goal of "providing a broad range of housing choices that serve residents of all abilities and incomes." Such housing accommodates anticipated growth and allows for a mixed-use office component to serve the local community. Supply for new residential units is limited in the downtown area and demand for the proposed type of housing proposed is present.

The project's architecture, site design and neighborhood character fits into the surrounding neighborhood and is intended to blend into the Southern Pines vernacular. Elements of building design and scale will be comparable with recently-completed regional projects. All vehicular access will be directed away from the existing neighborhood and toward publicly maintained roadways while pedestrian and bicycle travel will be encouraged throughout the neighborhood and connect to adjoining Town of Southern Pines streets.

The scale of the buildings will be diminished due to site conditions. A large grade cut will be required to place buildings on the site. This cut, coupled with the Town of Southern Pines planting and buffering standards and the site's location within the Highway Corridor Overlay District will create a condition that will screen and buffer the project from adjoining property owners. In addition, the site plan calls for limited development to be placed directly adjacent to the Village Green townhome community, to further act as a transfer of density to US 1 and the office outparcel.

P-12. New Housing Choices. Foster the provision of a mix of housing that meets the financial and physical needs of existing and future residents by encouraging development of a variety of housing types in new residential areas and promoting compatible infill in existing neighborhoods.

The multi-family buildings within the development will be consistent with the Southern Pines vernacular but will also meet the housing needs of future residents by incorporating a variety of housing types. The buildings will use materials consistent with Southern Pines. The mix of residential unit types is appropriate with the surrounding area. Market parameters dictate standards supporting Town's existing vernacular.

P-18. Parks and Recreation. Facilitate access to public and private parks and recreational facilities and activities for residents in new and existing neighborhoods by:

EXHIBIT C

- b. Encouraging development of new public and private facilities in coordination with new development; and

The project will provide for its residents, parks and amenities including open play areas, pool and clubhouse area, shade structure, pocket parks and dog park area as well as internal trails and sidewalks. This reduces the need for the Town of Southern Pines to provide amenities for the residents of this develop. All costs associated with the construction of these amenities will be borne by the developer.

CHAPTER 8 Housing (Page 8-4). Retaining Diverse Housing Options. The Downtown neighborhood offers a diverse mix of housing choices, which are needed to meet the increasingly diverse housing needs of the community. Seniors, who are no longer able or willing to maintain large, single-family lots seek denser housing options by necessity. Millennials, and to some extent, baby-boomers seek mixed-use neighborhoods and attached housing options. This is not to suggest that existing single-family neighborhoods should be rezoned to allow multi-family housing, but it does suggest the importance of retaining existing mixed-density zoning Downtown and promoting mixed-density neighborhoods within new developments.

The plan maximizes the permitted density on the property in a downtown infill neighborhood without a change in zoning classification. The site is part of the existing downtown urbanized area and all utility services are readily available for the site. Proposed density and location maximize urban planning objectives by limiting adverse impact and enhancing neighborhood efficiencies and livability. Higher density in close proximity of the vibrant downtown center area of Southern Pines, provides more residents within walking and biking distance of downtown. More people close to downtown will help maintain its vibrancy as the project's residents seek work, entertainment/dining and shopping options close to home.

The development pattern also meets the land use goals defined in this section of the CLRP as it makes efficient use of the town's remaining high density watershed allocation to encourage housing diversity throughout Southern Pines. This housing diversity and efficient use of land will be needed to meet the demands of projected growth of Southern Pines and the surrounding area.

P-6. Mobility. Enhance mobility options for residents of Southern Pines by:

- a. Ensuring that new neighborhoods and mixed-use centers interconnect with adjoining land uses.

The property provides an interconnected street network within the property and a street connection to US Highway 1 and the service road. The service road connects to West Connecticut Avenue and makes a full vehicular connection to downtown Southern Pines. Sidewalks will be added throughout the development to connect all internal amenities and encourage walking within the community. Pedestrian and bicycle gates located on the eastern property boundary will connect residents with the Town of Southern Pines street grid and promote biking and walking to downtown Southern Pines. This will help facilitate pedestrian and bicycle travel connecting to downtown.

G-8. Mobility. Increase mobility options for residents throughout Southern Pines.

P-6. Mobility. Enhance mobility options for residents of Southern Pines by:

- a. Ensuring that new neighborhoods and mixed-use centers interconnect with adjoining land uses.

EXHIBIT C

- b. Making walking and bicycling safe, convenient and economical transportation alternatives to driving through development of greenways and streets that are

The project's proximity to Downtown Southern Pines encourages walking and biking on the property. Internal sidewalk connections throughout the development encourage residents to walk and bike to amenity areas located throughout the site. Pedestrian and bicycle gates located on the eastern property boundary will connect residents with the Town of Southern Pines street grid and promote biking and walking to downtown Southern Pines.

P-7. Streetscapes. When improving streets and when streets are installed as part of new developments, ensure that the streets:

- b. Employ indigenous landscaping materials in streetscapes and buffers for parking and loading areas to reinforce the natural character of the Town;

It is intended that the development will maintain plants when appropriate and utilize native plants in all areas of the development. Use of native plants will be consistent with the surrounding neighborhood character and promote a project that looks like Southern Pines. Native plant utilization also reduces the amount of maintenance, pruning and irrigation that these plants need for survival. Native plants are more adapted to the local environment and are conditioned to meet the local environmental conditions including drought tolerance, pests and diseases.

G-13.Growth. Ensure that services, facilities and land resources accommodate anticipated growth while enhancing the quality of life for Southern Pines' residents.

P-15. Growth Coordination. To maintain the Town's fiscal integrity and ability to provide public facilities and services in a cost-effective manner:

- b. Ensure that costs of extending services to new development are generally borne by such development, except where cost-sharing is necessary to facilitate or attain larger community goals

All development infrastructure to serve the property (water, sewer, roads) cost will be borne by the developer and dedicated to the Town of Southern Pines. Water, sewer and road infrastructure are all available adjacent to the site.

EXHIBIT D

Patrick's Point Multifamily Development Standards

Below are listed the six (6) multi-family development standards and their subsections from Section 4.10.8 of the Town of Southern Pines UDO. Following the individual criteria is an explanation, indicated in red, describing how the project demonstrates compliance with each of these criteria.

(A) Applicability

- (1) The following Development standards shall apply to all Multi-Family structures in the Morganton Road Overlay district and Multi-Family Developments of ten (10) or more Dwelling Units in any zoning district in which such Dwelling Units are allowed. **These development standards apply to the property as it is more than 10 dwelling units.**
- (2) No Multi-Family Development may include more than ten (10) Dwelling Units, except pursuant to a Planned Development or Conditional Use Permit approval. **This property is seeking a Special Use Permit as permitted by the UDO in the OS zoning district.**
- (3) The Development standards in this section may be modified pursuant to a PD or Conditional Use Permit approval. **The proposed Special Use Permit follows these development standards to the greatest extent possible. Any variations are listed below and permitted as part of the Special Use Permit.**
- (4) In the RM-1 and RM-2 districts, no Multi-Family Residence may be located within two hundred (200) feet of the closest point of any other Multi-Family Residence, unless both structures are part of an integrated complex that includes no more than ten (10) Dwelling Units. **One building is located in the RM-2 zoning district. This building is in excess of 200' from the closest multi-family building. All other buildings within the community are included in the OS district which is not governed by this standard.**

(B) Building Setbacks, Orientation and Lot Standards

- (1) Buildings shall be set back a minimum of ten (10) feet and a maximum of fifteen (15) feet from sidewalks public walkways or street right-of-way. Setbacks may be greater than fifteen (15) feet if the intervening distance consists of common open space. **All multi-family buildings on the property meet this standard. The clubhouse building is setback beyond 15' to allow for additional landscaping area in front of the building.**
- (2) The minimum spacing between the sides of Multi-Family Residential structures shall be twenty (20) feet. **All buildings exceed 20' in separation.**
- (3) Where practical, Dwellings should be located to face each other across common landscaped space with buildings no closer than (30) feet. **Due to the narrow shape of this site, buildings have been placed in a linear fashion for most of the site. Where possible, buildings were across from each other. Most buildings backup to landscape areas and planted buffers. Where possible planted landscape islands have been provided to break up parking areas and add trees/landscaping.**

(C) Building Design. Multi-Family Developments shall:

- (1) Include variations in heights, color, setback, rooflines, trim, and building sizes to create visual diversity between structures; **Architecture will meet these specifications and be reviewed during the submission of the Architectural Compliance Permit.**
- (2) Group buildings in clusters; **Due to the narrow shape of this site buildings are dispersed in a more linear fashion. Buildings are grouped closely together in an effort to share parking and provide additional open space throughout the site.**
- (3) Articulate façades by including projections of at least five (5) feet at least once every fifty (50) feet along the façade, **Architecture will meet these specifications and be reviewed during the submission of the Architectural Compliance Permit.**

EXHIBIT D

- (4) Locate windows to provide easy surveillance of open spaces and walkways, without placing such windows within direct alignment with windows of adjacent structures; **Windows are located on all facades of the building and near walkways in order to allow for surveillance.**
- (5) Units above grade level should have access to private balconies of usable dimensions no smaller than ten (10) feet by six (6) feet; **Architecture will meet these specifications and be reviewed during the submission of the Architectural Compliance Permit.**
- (6) Create areas for foundation planting by keeping hard surfaces away from front façades; **Foundation plantings will be provided between the building and hard surfaces. The dimensions of this area are defined by Section 4.10.8 (B)(1). The clubhouse will be setback beyond this requirement to provide additional landscaping area.**
- (7) Design entrances to.
 - (a) Provide private entrances at grade level and adjacent to private open space to the greatest extent possible. Unless otherwise approved by the Town Council, no more than four (4) Dwelling Units shall share a common entrance. **12 units are served by each breezeway from the ground level through the use of stairs. Each breezeway serves 4 dwelling units on each level of the building.**
 - (b) Avoid aligning doors to separate Dwelling Units with each other unless screening is provided. However, entrances should be visible from the sidewalk or public walkway and other Dwelling Units, when practical. **No entrances are aligned directly with other dwelling units without landscape areas in between the buildings and entrances. All entrances are clearly visible from sidewalks and parking areas.**
 - (c) Provide porches or roofed overhangs over building entrances. **Roofed overhangs will be provided on all breezeway entrances. These entrances will provide focal elements for the building, while breaking up the front façade of the buildings.**
 - (d) Set back buildings or entries so that the entry paths extend at least ten (10) feet from sidewalk or public circulation walkway. These entry areas should be designed to provide semi-public gardens around the front entryways. Do not provide access to apartments via long-shared access galleries. **Entrances are setback as defined by Section 4.10.8 (B)(1). Landscaping is provided in between the sidewalk and building entrance to soften the entrance and create an attractive entrance location.**
 - (8) Provide a private garden, yard, patio or balcony for every Dwelling Unit. **All units in the development will have a private outdoor balcony or patio. Ground floor units will have private fenced patios, while upper level units will have private balconies.**
 - (9) The private open space of all Dwelling Units shall be visually and functionally accessible from inside the Dwelling. **All units will have windows and view the exterior landscaped areas, amenities and park.**
 - (10) Provide screening for yards where private activities are likely to occur and to delimit private from common open space. **Landscaping will be provided in front of all ground floor patios to allow for screening and privacy.**

(D) Pedestrian Improvements

- (1) Provide continuous walkways through the project and connecting Dwellings to and through common open space. **An interconnected network of walkways and sidewalks provide access throughout the community. All units are connected through pedestrian pathways to the park, clubhouse and amenity areas throughout the property.**
- (2) Minimize walkways that provide direct opportunities to cut through the project by strategically locating fences, low walls and planting areas within the site and near site entry points. **The property is proposed to be a private community. Pedestrian connections will be made to the streets surrounding the property, however, these locations will be gated and intended of the use of the residents. All amenities within the development will be private.**
- (3) Provide storage space for strollers, bicycles, and so forth, close to the main entries of Dwellings or groups of Dwellings. **Bicycle storage racks will be provided at the clubhouse and at each building.**

(E) Parking

- (1) Provide parking in small Lots that are designed and located to ensure that most parked vehicles are visible from one (1) or more Dwellings. **Parked vehicles will be visible from each building. Parking areas will be separated and divided by landscaping and parking islands per the Town's UDO.**

EXHIBIT D

(2) To the greatest extent practicable, parking shall not separate Dwelling Units from common open space. Due to the narrow shape of this site, dwellings are located facing open space areas where practicable.

(F) Open Space

(1) Common usable open space shall comprise ten (10) percent of the total project area. The project has +/- 8.1 acres (32%) of open space and 2.55 acres (10%) of usable open included in the amenity areas as indicated on the preliminary plat included in the submission documents.

(2) Open spaces shall be configured so that the ratio of building height to open space width is in the range of 1:3 or greater. Ratios as tight as 1:2 may be approved if landscaping effectively screens buildings from each other. The open space areas meet these standards.

(3) Common open space shall be configured in square or nearly square areas with sides of at least one hundred (100) feet. Common open space and amenity areas are not configured as square areas as the topography and narrow site area prohibit this configuration. Open space areas are configured to fit the land, work with the topography and work within the plan structure to provide recreation opportunities for the residents of the community. The larger recreation/amenity areas exceed 100 feet on all sides.

(4) To the greatest extent practicable, Dwelling Units shall have access to common open space without having to cross a street. No public streets are provided within the development.

(5) Play Areas

(a) Play areas for young children should be physically separated from potential traffic hazards. The play area is located at the end of the property in a park area. This will allow for children's safety and separate children from vehicular traffic. The sidewalk system throughout the project will connect to this park area.

(b) Provide a variety of hard-surfaces areas in the form pathways that are least five (5) feet wide and small areas off the circulation system for various children's activities. The play area will provide these items.

(6) For Developments with more than twenty (20) Dwellings, provide on-site; well-equipped and challenging play areas for school age children within a five (5) minute walk from each Dwelling Unit. A play area will be provided as described above. Due to the linear nature and topography of this site, a flat area located outside of the main vehicular circulation pattern was identified for the playground. This area also has several large trees that will be maintained to create a shaded play area. Access to this area may exceed 5 minutes from the northernmost building. The clubhouse and pool area, however, are within five minutes' walk of all units. Children of all ages will be permitted to utilize these areas as well as the park area.

(a) Provide places for school age children to sit. Benches and sitting areas will be provided for children and adults.

(b) Where possible include a space for ball games on site (minimum 80 feet x 40 feet). Due to the topography and narrow site a flat area of this size will not be provided. However, the pool and clubhouse will provide a fitness room, theater room, game room and other amenities open to children. This properties proximity to downtown Southern Pines open spaces and parks will permit residents to have ball games if desired.

(7) Provide retaining walls that can also be used for casual seating. Retaining walls or site furniture will be used to provide casual seating.

(8) Where cluster Dwellings are included in a project, ensure some uniqueness for each cluster. Vary the design (size, dimensions, grading, planting, site furniture and play equipment) of the common open spaces of each cluster. This does not apply to this site.

(9) The number of Dwelling Units grouped around common and open space should range between twenty (20) to one hundred (100) Several units are grouped within close proximity of the clubhouse and pool area.

EXHIBIT E

Patrick's Pointe Project Justification

There are many reasons why multi-family and office development at the densities proposed for Patrick's Pointe are justified and appropriate for the Town of Southern Pines. This project's justification statement provides evidence for full approval of the project. As submitted in other Exhibits with the application, the project is clearly justified as it meets many of the goals of the Town of Southern Pines Comprehensive Long-Range Plan (CLRP) and all development standards included in the Unified Development Ordinance (UDO). There are no waivers or modifications to these standards proposed by the applicant within the submission documents. In fact, many of the standards associated with these documents are exceeded by the plan and documentation presented as the preliminary plat. All UDO-required findings associated with the requested SUP and the Preliminary plat are easily met.

The Town of Southern Pines CLRP and UDO standards have been established through a series of public meetings and hearings, hours of staff review, Planning Board deliberation and Town Council deliberation. These documents are established to guide development, written specifically to protect the public interest, health and welfare of the citizens of Southern Pines and provide developers and landowners with a clear understanding of the community's goals prior to investing time, money and effort for a proposed project. As a guide to growth these documents establish many guidelines for development including the following: land uses, density, setbacks, landscaping standards, buffers, buffer planting requirements, required number of parking spaces, parking space sizes, parking lot planting requirements, signage, lighting, open space, architectural standards and many other items specific to development. The proposed project meets all these guidelines, in particular, land use, open space, density, setbacks and buffers.

Of the permitted uses in the OS zoning district, multi-family development is one of the least intense development classifications. This district permits office development, hotels, private fitness centers, daycares, banks, insurance offices, real estate offices, health clinics, medical offices, and many other uses. All these uses are permitted by-right and would involve no public process to develop these types of facilities. Standards for these uses have far lower open space requirements and produce significantly more traffic than multi-family development. Again, based on the zoning classification, these other uses could be permitted today with a simple application to Town Planning and Engineering staff with no public deliberation.

The proposed project has many advantages over the other permitted uses. Multi-family development has a greater requirement for open space. Some of this open space is proposed to be usable open space for the residents. Residential development also generates much less traffic than many of the other permitted uses in the OS zoning district.

In item P-15.a. of the CLRP it states "Favor infill development in areas with access to public facilities over development on the perimeter that requires extension of public utilities". This statement is very important for the future development of Southern Pines and speaks to "Smart Growth" principles and sound planning. Based on the projected population growth of Southern Pines, this statement is even more meaningful and important. Southern Pines is growing and projected to grow substantially over the next several years as indicated by US census data. There are choices as to how this increase in population should be housed. The CLRP and UDO have made it clear that the subject property is intended for higher density development.

Higher density in appropriate locations has many advantages over traditional low density development. From a land use and planning perspective, this site is ideal for higher density residential development. The proximity to Downtown Southern Pines encourages alternate transportation methods for travel to downtown. The project will provide pedestrian and bicycle access gates that connect to the grid of downtown Southern Pines that will enable residents to bike or walk to downtown for shopping, dining, working or to take advantage of the many downtown festivals and events. Residents will not have to cross any major highways or roadways in order to access downtown and can utilize the new bike racks being installed throughout the downtown area.

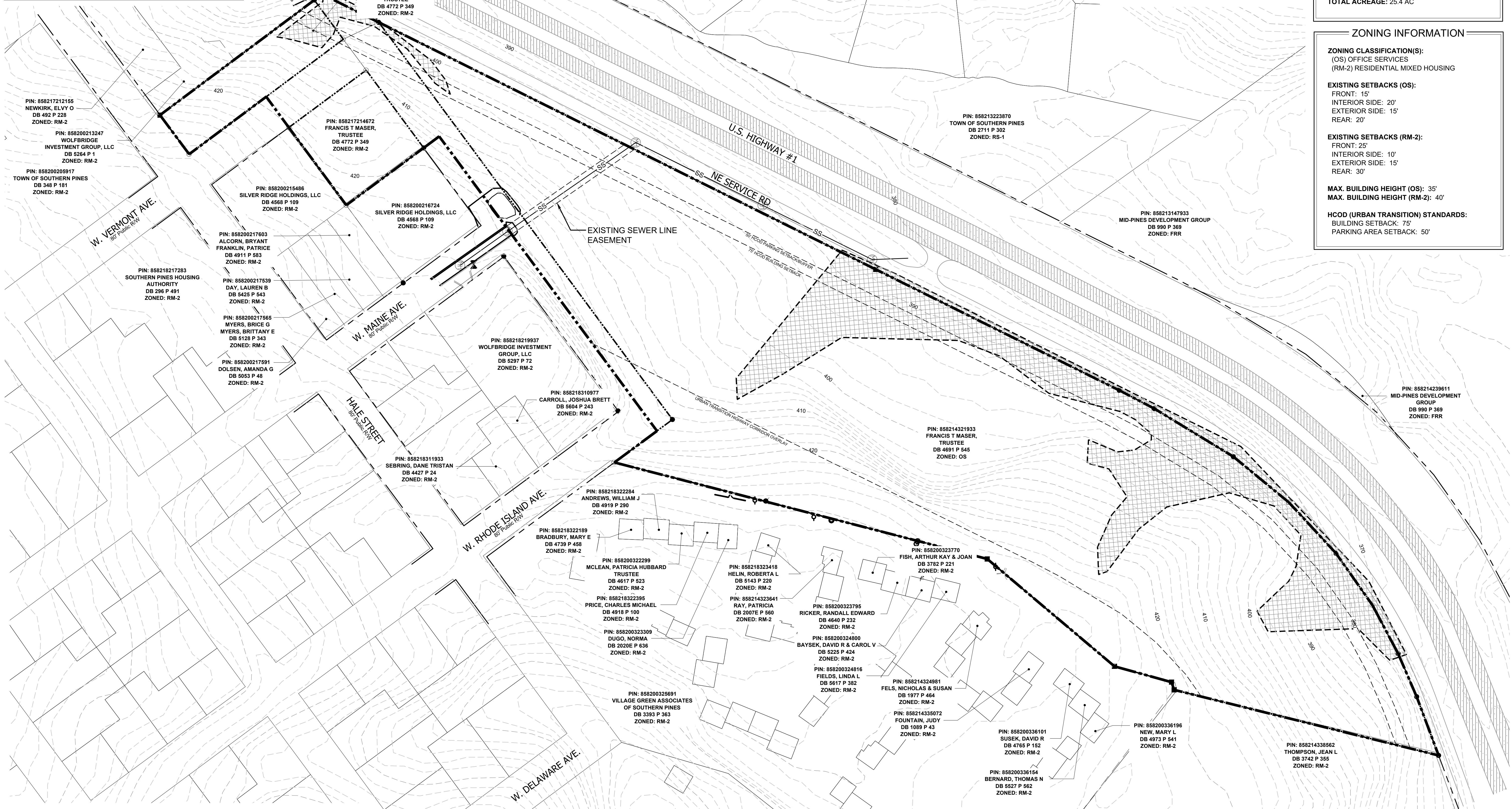
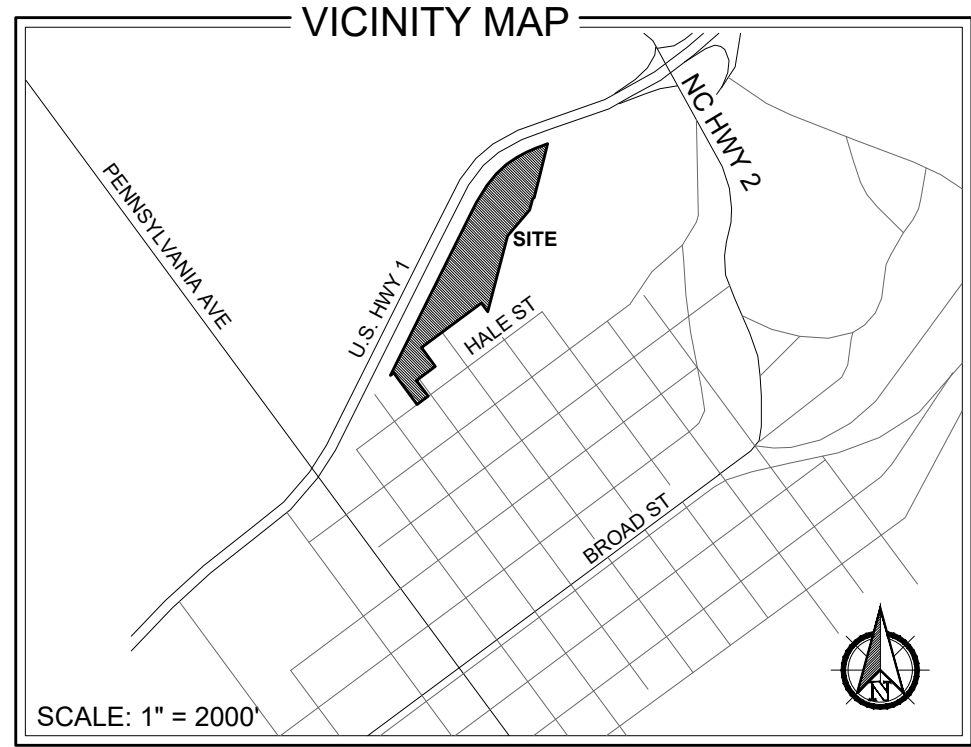
EXHIBIT E

There are many other advantages to higher density on this site. While it may seem counterintuitive, increasing density helps protect local watersheds. The Town of Southern Pines has a limited amount of high density watershed allocation that it can utilize for development. Any development above 24% impervious surface is required to apply for a watershed allocation permit, which allows for development up to 70% impervious surface. If a development exceeds 24% impervious surface, the entire site must be counted toward the high intensity allocation. In this case, the site would require approximately 25 acres of watershed allocation for 276 residential units and an office outparcel. Spread this density over (3) 100 unit projects on 25 acres each and 75 acres of watershed allocation would be required, which reduces the future development potential for the balance of the watershed throughout Southern Pines. Increasing density makes efficient use of the watershed and should be encouraged to protect water resources.

Utility infrastructure efficiency is another advantage of infill development. Water, sewer and roadway infrastructure is readily available for this site and allows for efficient extension, distribution and maintenance of existing utilities. Serving more units with less infrastructure is a clear advantage of this type of development and an important aspect of smart growth development. While the costs of any extensions of utilities and connecting roadways will be borne by the developer, this infrastructure will be dedicated to the Town of Southern Pines and NCDOT for long term maintenance. Limiting the length and amount of public infrastructure to serve the maximum number of units has a positive impact on long term maintenance costs of utility infrastructure.

The proximity of this proposed development to downtown, coupled with “smart growth” principles of reducing watershed impact, reducing utility and roadway infrastructure, as well as the clear intent of the CLRP and UDO to promote this type of development on the site are a clear indication that the proposed development is appropriate. This project requests no modifications or waivers from the standards set forth in the UDO and is strictly prescribed by all guiding documents. This project represents the vision described for the property in all applicable documents. The project, as proposed, meets or exceeds all development standards of the UDO and complies with many of the goals of the CLRP.

Item F of the Conditional Use Permit Justification is as follows: “The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use”. Based on the Town’s guiding documents, CLRP and UDO, this project clearly serves the public interest and welfare, as it asks for no waivers or modifications of the approved development standards. In the submitted exhibits, no modifications to land use, density, setbacks, landscaping standards, buffers, buffer planting requirements, required number of parking spaces, parking space sizes, parking lot planting requirements, signage, lighting, open space, architectural standards, and other items specific to development are requested. Planning concepts presented in the application are consistent with the major planning goals of the CLRP and this project represents sound community planning principles. Community needs with proposed development standards have been clearly defined by the Town’s guiding documents, the CLRP and UDO, and should not be compromised as the Town of Southern Pines looks towards its future.



FLOODPLAIN DATA

THIS PROPERTY IS LOCATED IN FLOOD ZONE 'X' (AREAS OF MINIMAL FLOODING)

THE LOCATION OF THE 100-YEAR FLOODPLAIN PER NFIP FIRM COMMUNITY PANEL(S) NO: 8582 MAP(S): 3710858200J DATE: OCTOBER 17, 2006

CAUTION

THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT DEPICTED ON THESE PLANS. THE LANDSCAPE ARCHITECT AND ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE PROJECT LIMITS. ALL DAMAGE MADE TO THE EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY BY THE CONTRACTOR.

LEGEND

- = OVERALL PROPERTY BOUNDARY
- - - - - = EXISTING MINOR CONTOUR
- - - - - = EXISTING MAJOR CONTOUR
- SS = EXISTING SEWER LINE
- - - - - = EXISTING RIGHT-OF-WAY
- [Hatched Box] = EXISTING WETLAND

PROPERTY INFORMATION

PROPERTY OWNER:
FRANCIS T MASER, TRUSTEE
PO BOX 1133
SOUTHERN PINES, NC 28388

APPLICANT:
1700, LLC
2601 SOUTH BAYSHORE DRIVE, 17TH FLOOR
MIAMI, FL 33133

TOTAL ACREAGE: 25.4 AC

ZONING INFORMATION

ZONING CLASSIFICATION(S):
(OS) OFFICE SERVICES
(RM-2) RESIDENTIAL MIXED HOUSING

EXISTING SETBACKS (OS):
FRONT: 15'
INTERIOR SIDE: 20'
EXTERIOR SIDE: 15'
REAR: 20'

EXISTING SETBACKS (RM-2):
FRONT: 25'
INTERIOR SIDE: 10'
EXTERIOR SIDE: 15'
REAR: 30'

MAX. BUILDING HEIGHT (OS): 35'
MAX. BUILDING HEIGHT (RM-2): 40'

HCOD (URBAN TRANSITION) STANDARDS:
BUILDING SETBACK: 75'
PARKING AREA SETBACK: 50'

PRELIMINARY PLANS - NOT RELEASED FOR CONSTRUCTION (FOR REVIEW ONLY)

KOONTZJONESDesign
LAND PLANNING | LANDSCAPE ARCHITECTURE

150 S PAGE STREET
SOUTHERN PINES, NC 28387
P: (910) 639-4058
W: www.koontzjonesdesign.com

REVISIONS:

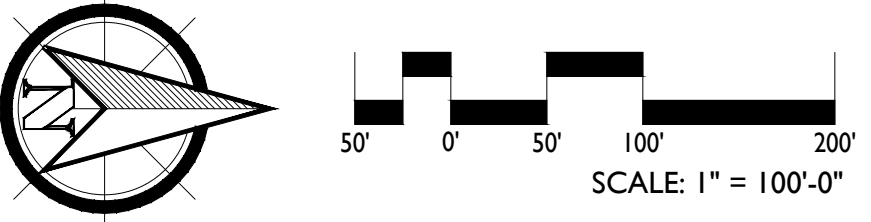
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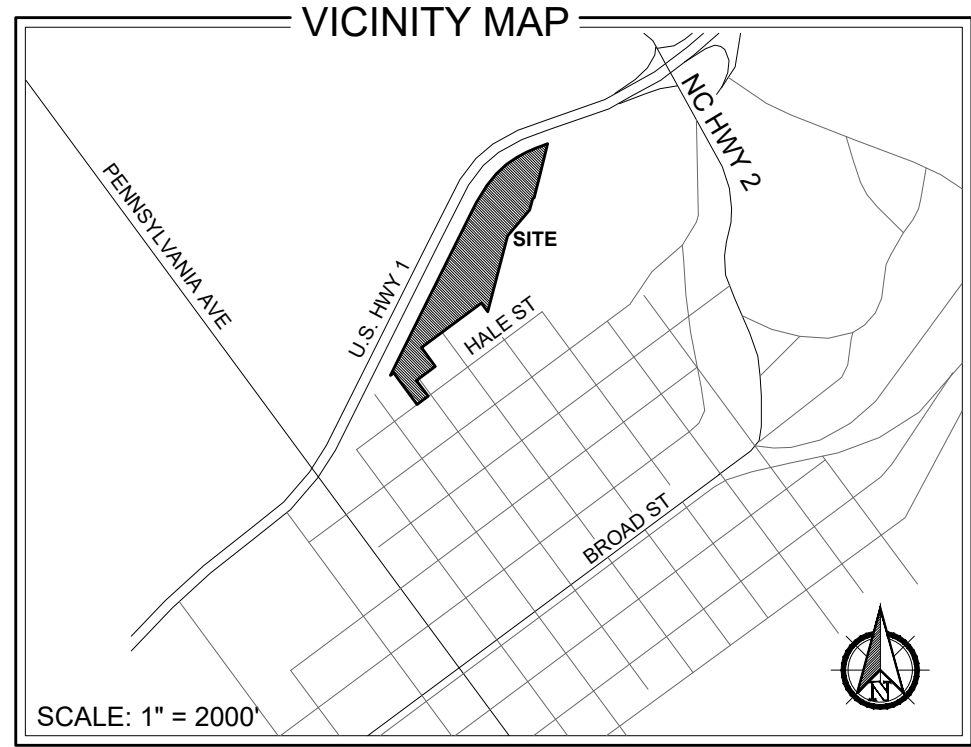
PATRICK'S POINTE
SOUTHERN PINES, NORTH CAROLINA

EXISTING CONDITIONS

DATE: 10-11-2021
DESIGNED BY: REK
DRAWN BY: PJS
CHECKED BY: REK
SCALE: 1" = 100'-0"
PROJECT #:

SHEET NUMBER#:
L-1.0





GENERAL NOTES:

1. DRAINAGE WILL BE RETAINED AND TREATED BY ON SITE STORMWATER MANAGEMENT DEVICES. THE GENERAL LOCATION OF SUCH DEVICES ARE SHOWN ON THIS PLAN. DETAILED STORMWATER MANAGEMENT PLANS WILL BE PROVIDED DURING PERMITTING OF THE DEVELOPMENT AND WILL FOLLOW THE TOWN OF SOUTHERN PINES STANDARDS AND BE APPROVED BY THE TOWN ENGINEER.
2. LIGHTING WILL BE PROVIDED IN ACCORDANCE WITH SECTION 4.8 OF TOWN'S UDO
3. PROJECT SIGNAGE WILL MEET ALL REQUIREMENTS AS ESTABLISHED IN THE TOWN OF SOUTHERN PINES UDO
4. LANDSCAPING WILL BE PROVIDED TO MEET OR EXCEED THE REQUIREMENTS AS ESTABLISHED IN THE TOWN OF SOUTHERN PINES UDO.

FLOODPLAIN DATA

THIS PROPERTY IS LOCATED IN FLOOD ZONE 'X' (AREAS OF MINIMAL FLOODING)

THE LOCATION OF THE 100-YEAR FLOODPLAIN PER NFIP FIRM COMMUNITY PANEL(S) NO: 8582 MAP(S): 3710858200J DATE: OCTOBER 17, 2006

ZONING INFORMATION

ZONING CLASSIFICATION(S):
(OS) OFFICE SERVICES
(RM-2) RESIDENTIAL MIXED HOUSING

EXISTING SETBACKS (OS):
FRONT: 15'
INTERIOR SIDE: 20'
EXTERIOR SIDE: 15'
REAR: 20'

EXISTING SETBACKS (RM-2):
FRONT: 25'
INTERIOR SIDE: 10'
EXTERIOR SIDE: 15'
REAR: 30'

MAX. BUILDING HEIGHT (OS): 35'
MAX. BUILDING HEIGHT (RM-2): 40'

HCOD (URBAN TRANSITION) STANDARDS:
BUILDING SETBACK: 75' (STREET YARD)
PARKING AREA SETBACK: 50' (STREET YARD)

CAUTION

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LEGEND

- OVERALL PROPERTY BOUNDARY
- - - OUTPARCEL BOUNDARY
- - - 400' EXISTING MINOR CONTOUR
- - - SS EXISTING MAJOR CONTOUR
- - - EXISTING SEWER LINE
- - - EXISTING RIGHT-OF-WAY
- PROPOSED OPEN SPACE
- PROPOSED USEABLE OPEN SPACE

PROPERTY INFORMATION

PROPERTY OWNER:
FRANCIS T MASER, TRUSTEE
PO BOX 1133
SOUTHERN PINES, NC 28388

APPLICANT:
1700, LLC
2601 SOUTH BAYSHORE DRIVE, 17TH FLOOR
MIAMI, FL 33133

TOTAL ACREAGE: 25.4 AC

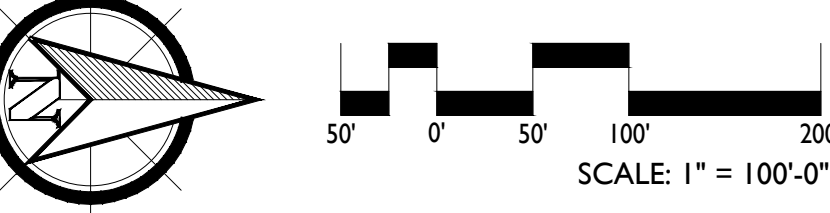
TOTAL UNITS:
276 MULTI-FAMILY UNITS

TOTAL OPEN SPACE: ±10.5 AC (41.3%)
TOTAL USEABLE OPEN SPACE: ±2.55 AC (10%)

REQUIRED PARKING:
-MULTI-FAMILY
1 BEDROOM UNITS (110 UNITS)
-1 SPACE PER UNIT (+1 VISITOR SPACE / 5 UNITS)
= 132 SPACES
2-3 BEDROOM UNITS (166 UNITS)
-2 SPACES PER UNIT (+1 VISITOR SPACE / 5 UNITS)
= 365 SPACES
TOTAL PARKING REQUIRED = 497 SPACES

TOTAL PARKING PROVIDED = 554 SPACES

TOTAL IMPERVIOUS SURFACE: ±12.3 AC (48.4%)



KOONTZJONESDesign
LAND PLANNING | LANDSCAPE ARCHITECTURE

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REVISIONS:

REVISIONS:

PATRICK'S POINTE
SOUTHERN PINES, NORTH CAROLINA

SITE PLAN

DATE: 10-11-2021
DESIGNED BY: REK
DRAWN BY: PJS
CHECKED BY: REK
SCALE: 1" = 100'-0"
PROJECT #:
SHEET NUMBER#:
L-1.1

*Revised
Traffic Impact Analysis*

US 1 Multifamily
Southern Pines, NC

Prepared for:
Volta Global, LLC

Kimley»Horn

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44 of 227

Revised Traffic Impact Analysis for

US 1 Multifamily

Southern Pines, North Carolina

Prepared for:

Volta Global, LLC

Miami, Florida

Prepared by:

Kimley-Horn and Associates, Inc.

NC License #F-0102

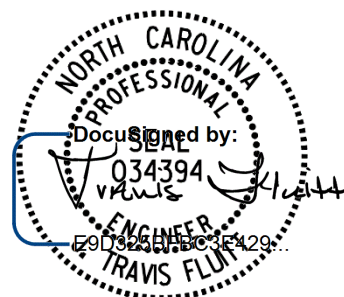
421 Fayetteville Street, Suite 600

Raleigh, NC 27601

(919) 677-2000

October 2021

014362000



10/15/2021

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 and Associates, Inc. has performed a revision to the Traffic Impact Analysis for the proposed US 1 Multifamily project located on the east side of US 1 between Pennsylvania Avenue and Midland Road in Southern Pines, North Carolina. The original report was dated September 17, 2021 and included 256 apartments, 37 townhomes, and 15,000 square feet (SF) of office space. The plan has since been revised to include 276 apartment units and up to 7,500 SF of general office space. Site access will still be provided via three proposed driveways along the US 1 NE Service Road, but Site Driveway #2 will no longer align with the US 1 NE Service Road Access. Although the development is projected to be complete before then, a 10-year horizon of 2031 was used for this analysis.

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 (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

As shown in [Table ES-1](#), the project is projected to generate 2,106 new daily trips, 127 new trips during the AM peak hour, and 127 new trips during the PM peak hour on a typical weekday.

Table ES-1								
ITE Traffic Generation (Vehicles)								
Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
221	Apartments	276	d.u.	2,020	24	69	71	46
710	General Office Building	7,500	s.f.	86	29	5	2	8
Total Net New External Trips				2,106	53	74	73	54

Capacity analyses were performed using Synchro/SimTraffic Version 10 software for the unsignalized intersections. Table ES-2 summarizes the operation of study intersections for the AM and PM peak hour traffic conditions.

Table ES-2 Level-of-Service Summary		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Midland Road at US 1 Northbound Ramps		
Existing (2021) Traffic	EB – B (10.4) WB – C (15.3)	EB – A (9.8) WB – C (14.5)
Background (2031) Traffic	EB – B (10.9) WB – C (19.6)	EB – B (10.1) WB – C (17.8)
Build-out (2031) Traffic	EB – B (11.0) WB – C (21.0)	EB – B (10.1) WB – C (18.4)
Midland Road at Crestview Road		
Existing (2021) Traffic	EB – B (11.7) NBL – A (7.9)	EB – B (11.1) NBL – A (7.8)
Background (2031) Traffic	EB – B (12.5) NBL – A (8.1)	EB – B (11.8) NBL – A (7.9)
Build-out (2031) Traffic	EB – B (12.5) NBL – A (8.1)	EB – B (11.9) NBL – A (7.9)
N Saylor Street at Crestview Road		
Existing (2021) Traffic	NB – A (8.8) WBL – A (7.3)	NB – A (8.7) WBL – A (7.3)
Background (2031) Traffic	NB – A (8.9) WBL – A (7.3)	NB – A (8.7) WBL – A (7.4)
Build-out (2031) Traffic	NB – A (8.9) WBL – A (7.3)	NB – A (8.8) WBL – A (7.4)
N Saylor Street at W Rhode Island Avenue		
Existing (2021) Traffic	EB – A (9.0) WB – A (9.5) NBL – A (7.4) SBL – A (7.3)	EB – A (8.9) WB – A (8.9) NBL – A (7.3) SBL – A (7.3)
Background (2031) Traffic	EB – A (9.0) WB – A (9.5) NBL – A (7.4) SBL – A (7.3)	EB – A (8.9) WB – A (8.9) NBL – A (7.3) SBL – A (7.3)
Build-out (2031) Traffic	EB – A (9.1) WB – A (9.6) NBL – A (7.4) SBL – A (7.3)	EB – A (9.0) WB – A (9.0) NBL – A (7.3) SBL – A (7.3)

Table ES-2 Level-of-Service Summary (cont.)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
N Saylor Street at W Vermont Avenue		
Existing (2021) Traffic	EB – A (9.1) WB – A (9.6) NBL – A (7.3) SBL – A (7.3)	EB – A (9.0) WB – A (9.0) NBL – A (7.3) SBL – A (7.3)
Background (2031) Traffic	EB – A (9.2) WB – A (9.7) NBL – A (7.4) SBL – A (7.3)	EB – A (9.1) WB – A (9.1) NBL – A (7.3) SBL – A (7.3)
Build-out (2031) Traffic	EB – A (9.2) WB – A (9.7) NBL – A (7.4) SBL – A (7.3)	EB – A (9.2) WB – A (9.1) NBL – A (7.3) SBL – A (7.3)
N Saylor Street at Pennsylvania Avenue		
Existing (2021) Traffic	NB – C (17.6) SB – B (12.4) EBL – A (8.0) WBL – A (8.3)	NB – C (19.7) SB – B (14.7) EBL – A (8.6) WBL – A (8.0)
Background (2031) Traffic	NB – C (21.0) SB – B (13.4) EBL – A (8.2) WBL – A (8.5)	NB – C (24.8) SB – C (17.0) EBL – A (8.9) WBL – A (8.1)
Build-out (2031) Traffic	NB – C (22.6) SB – C (17.6) EBL – A (8.2) WBL – A (8.5)	NB – D (26.9) SB – C (22.0) EBL – A (9.0) WBL – A (8.1)
US 1 NB at US 1 NE Service Road Access		
Existing (2021) Traffic	WB – B (12.4)	WB – C (15.3)
Background (2031) Traffic	WB – B (13.4)	WB – C (17.3)
Build-out (2031) Traffic	WB – B (14.0)	WB – C (18.1)
US 1 NE Service Road at Site Driveway #1		
Build-out (2031) Traffic	WB – A (8.9) SBL – A (7.3)	WB – A (8.8) SBL – A (7.3)
US 1 NE Service Road at Site Driveway #2		
Build-out (2031) Traffic	WB – A (8.9) SBL – A (7.3)	WB – A (8.9) SBL – A (7.3)
US 1 NE Service Road at US 1 NE Service Road Access*		
Build-out (2031) Traffic	NB – A (4.0) SB – A (3.8)	NB – A (4.0) SB – A (2.9)
US 1 NE Service Road at Site Driveway #3		
Build-out (2031) Traffic	WB – A (8.6) SBL – A (7.3)	WB – A (8.6) SBL – A (7.3)

The US 1 Multifamily project is proposed to provide three site driveways aligning with US 1 NB Service Road. All site driveways are proposed to be constructed with one ingress lane and one egress lane.

The following improvements are recommended to be performed as part of the proposed US 1 Multifamily development:

US 1 at US 1 NE Service Road Access:

- Construct an exclusive right-turn lane on northbound US 1 with 50 feet of storage and appropriate tapers

US 1 NE Service Road at Site Driveway #1:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

US 1 NE Service Road at Site Driveway #2:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

US 1 NE Service Road at US 1 NE Service Road Access

- Operate the eastbound approach (US 1 NE Service Road Access) as a free-flow movement with stop-control on the northbound and southbound approaches

US 1 NE Service Road at Site Driveway #3:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With the recommended improvements in place, analysis indicates that all study intersections are expected to operate at acceptable levels of service with no queuing issues at project build-out.

Figure ES-1 shows the recommended roadway laneage.

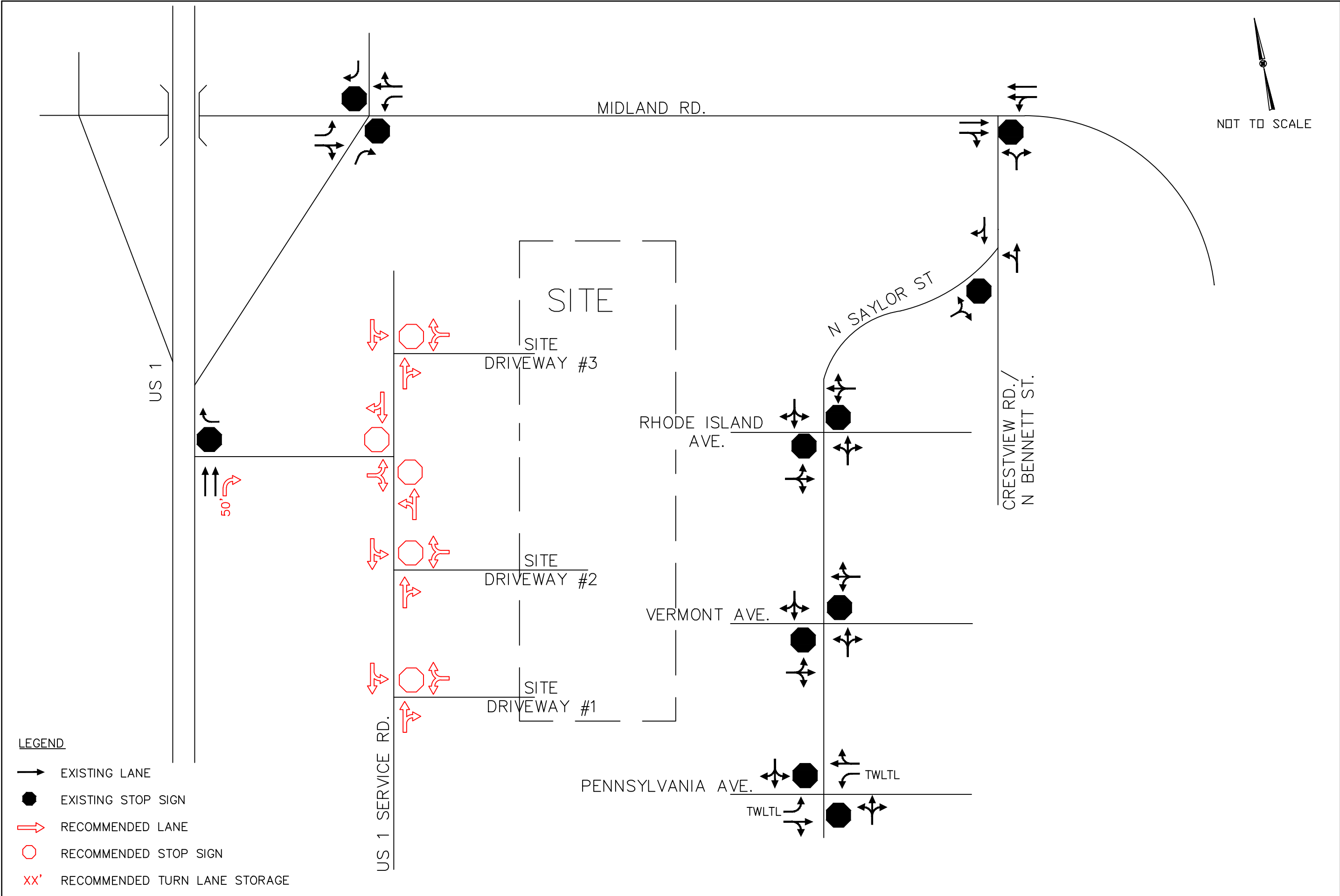


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1.0 Introduction

Kimley-Horn and Associates, Inc. has performed a revision to the Traffic Impact Analysis for the proposed US 1 Multifamily project located on the east side of US 1 between Pennsylvania Avenue and Midland Road in Southern Pines, North Carolina. The original report was dated September 17, 2021 and included 256 apartments, 37 townhomes, and 15,000 square feet (SF) of office space. The plan has since been revised to include 276 apartment units and up to 7,500 SF of general office space. Site access will still be provided via three proposed driveways along the US 1 NE Service Road, but Site Driveway #2 will no longer align with the US 1 NE Service Road Access. Although the development is projected to be complete before then, a 10-year horizon of 2031 was used for this analysis.

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 (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

North Carolina Department of Transportation (NCDOT) and Town of Southern Pines staff were consulted regarding the elements to be covered in this analysis.

2.0 Inventory

2.1 Study Area

The study area for this development includes the following intersections:

- Midland Road at US 1 Northbound Ramps
- Midland Road at Crestview Road
- N Saylor Street at Crestview Road
- N Saylor Street at W Rhode Island Avenue
- N Saylor Street at W Vermont Avenue
- N Saylor Street at W Pennsylvania Avenue
- US 1 NB at US 1 NE Service Road Access
- US 1 NE Service Road at Proposed Site Driveway #1
- US 1 NE Service Road at Proposed Site Driveway #2
- US 1 NE Service Road at US 1 NE Service Road Access
- US 1 NE Service Road at Proposed Site Driveway #3

Figure 2.1 shows the site location, and the conceptual development plan is shown on **Figure 2.2**.

2.2 Existing Conditions

The proposed US 1 Multifamily development is project located on the east side of US 1 between Pennsylvania Avenue and Midland Road in Southern Pines, North Carolina. Roadways in the study area include US 1, Midland Road, Pennsylvania Avenue, Crestview Road, Saylor Street, Rhode Island Avenue, and Vermont Avenue. The existing roadway laneage is shown in **Figure 2.3**.

US 1 is a 4-lane divided highway with a posted speed limit of 55 mph near the study area. The reported 2019 average daily traffic (ADT) volume was approximately 26,000 vehicles per day (vpd) south of Midland Road.

Midland Road is a 4-lane divided roadway with a posted speed limit of 35 mph east of US 1. The reported 2017 ADT volume was approximately 6,500 vpd east of US 1.

Pennsylvania Avenue is a 3-lane roadway with a center two-way left-turn lane (TWLTL) and a posted speed limit of 35 mph. The reported ADT volume was approximately 7,600 vpd east of US 1.

Crestview Road, Saylor Street, Rhode Island Avenue, and Vermont Avenue are all 2-lane roadways with estimated ADT volumes below 1,000 vpd.



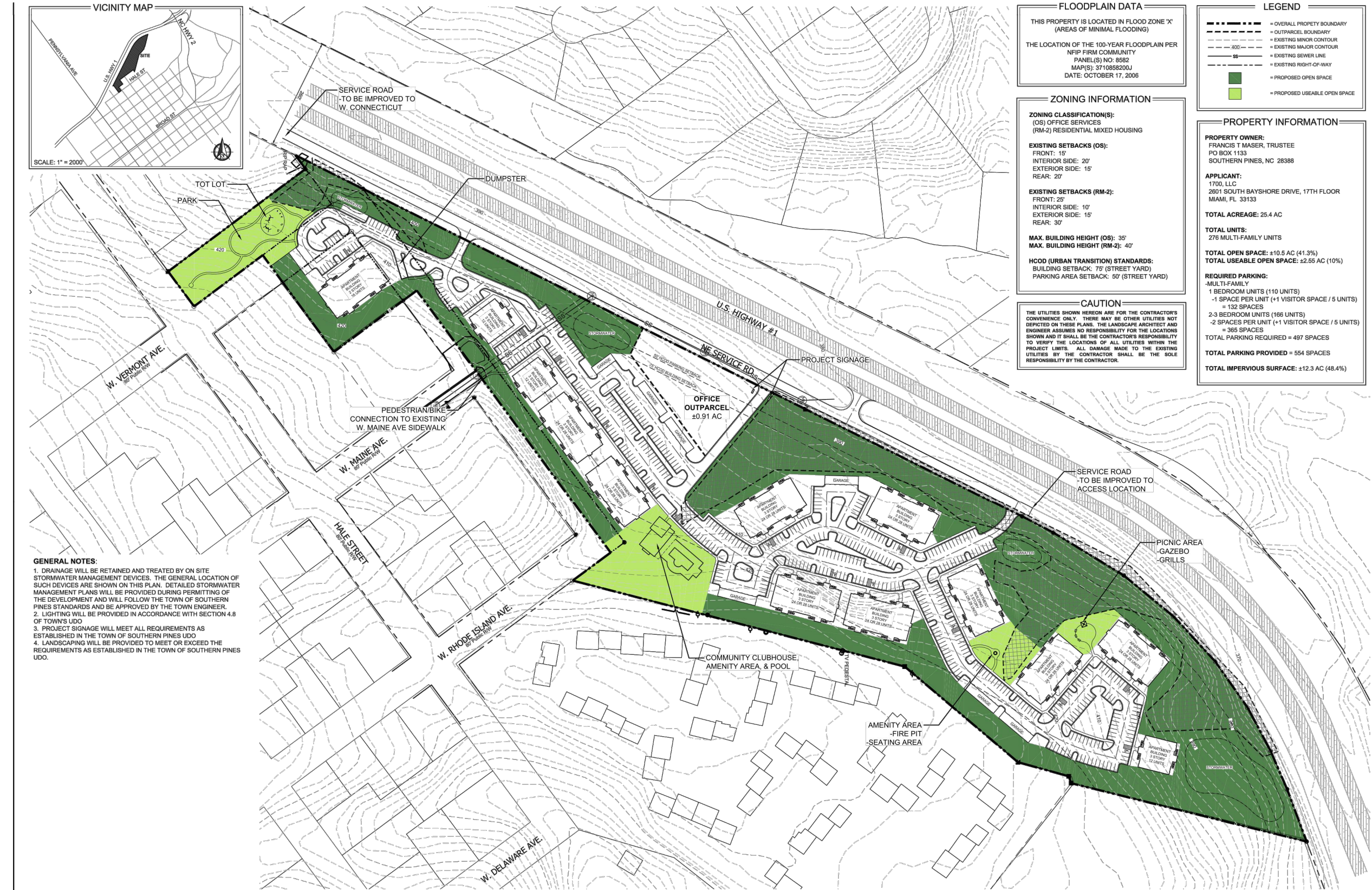
Kimley»Horn

US 1 MULTIFAMILY
SOUTHERN PINES, NC
TRAFFIC IMPACT ANALYSIS

SITE LOCATION

FIGURE
2.1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC. 50 of 227



GENERAL NOTES:
1. DRAINAGE WILL BE RETAINED AND TREATED BY ON SITE STORMWATER MANAGEMENT DEVICES. THE GENERAL LOCATION OF SUCH DEVICES ARE SHOWN ON THIS PLAN. DETAILED STORMWATER MANAGEMENT PLANS WILL BE PROVIDED DURING PERMITTING OF THE DEVELOPMENT AND WILL FOLLOW THE TOWN OF SOUTHERN PINES STANDARDS AND BE APPROVED BY THE TOWN ENGINEER.
2. LIGHTING WILL BE PROVIDED IN ACCORDANCE WITH SECTION 4.8 OF TOWN'S UDO.
3. PROJECT SIGNAGE WILL MEET ALL REQUIREMENTS AS ESTABLISHED IN THE TOWN OF SOUTHERN PINES UDO.
4. LANDSCAPING WILL BE PROVIDED TO MEET OR EXCEED THE REQUIREMENTS AS ESTABLISHED IN THE TOWN OF SOUTHERN PINES UDO.



FLOODPLAIN DATA
THIS PROPERTY IS LOCATED IN FLOOD ZONE 'X' (AREAS OF MINIMAL FLOODING)
THE LOCATION OF THE 100-YEAR FLOODPLAIN PER NFIP FIRM COMMUNITY PANEL(S) NO: 8582 MAP(S): 3710858200J DATE: OCTOBER 17, 2006

ZONING INFORMATION
ZONING CLASSIFICATION(S):
(OS) OFFICE SERVICES
(RM-2) RESIDENTIAL MIXED HOUSING
EXISTING SETBACKS (OS):
FRONT: 15'
INTERIOR SIDE: 20'
EXTERIOR SIDE: 15'
REAR: 20'
EXISTING SETBACKS (RM-2):
FRONT: 25'
INTERIOR SIDE: 10'
EXTERIOR SIDE: 15'
REAR: 30'
MAX. BUILDING HEIGHT (OS): 35'
MAX. BUILDING HEIGHT (RM-2): 40'
HCOD (URBAN TRANSITION) STANDARDS:
BUILDING SETBACK: 75' (STREET YARD)
PARKING AREA SETBACK: 50' (STREET YARD)

CAUTION
THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT DEPICTED ON THESE PLANS. THE LANDSCAPE ARCHITECT AND ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE PROJECT LIMITS. ALL DAMAGE MADE TO THE EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY BY THE CONTRACTOR.

LEGEND
--- OVERALL PROPERTY BOUNDARY
--- OUTPARCEL BOUNDARY
--- EXISTING MINOR CONTOUR
--- EXISTING MAJOR CONTOUR
--- EXISTING SEWER LINE
--- EXISTING RIGHT-OF-WAY
■ PROPOSED OPEN SPACE
■ PROPOSED USEABLE OPEN SPACE

PROPERTY INFORMATION
PROPERTY OWNER:
FRANCIS T MASER, TRUSTEE
PO BOX 1133
SOUTHERN PINES, NC 28388
APPLICANT:
1700, LLC
2601 SOUTH BAYSHORE DRIVE, 17TH FLOOR
MIAMI, FL 33133
TOTAL ACREAGE: 25.4 AC
TOTAL UNITS:
276 MULTI-FAMILY UNITS
TOTAL OPEN SPACE: ±10.5 AC (41.3%)
TOTAL USEABLE OPEN SPACE: ±2.55 AC (10%)
REQUIRED PARKING:
MULTI-FAMILY
1 BEDROOM UNITS (110 UNITS)
-1 SPACE PER UNIT (+1 VISITOR SPACE / 5 UNITS)
= 132 SPACES
2-3 BEDROOM UNITS (166 UNITS)
-2 SPACES PER UNIT (+1 VISITOR SPACE / 5 UNITS)
= 365 SPACES
TOTAL PARKING REQUIRED = 497 SPACES
TOTAL PARKING PROVIDED = 554 SPACES
TOTAL IMPERVIOUS SURFACE: ±12.3 AC (48.4%)

PRELIMINARY PLANS - NOT RELEASED FOR CONSTRUCTION (FOR REVIEW ONLY)

KOONTZJONESDesign
LAND PLANNING / LANDSCAPE ARCHITECTURE
130 S PAGE STREET
SUITE 200
SOUTHERN PINES, NC 28387
P: (910) 659-4055
W: www.koontzjonesdesign.com

REVISIONS:

REVISIONS:

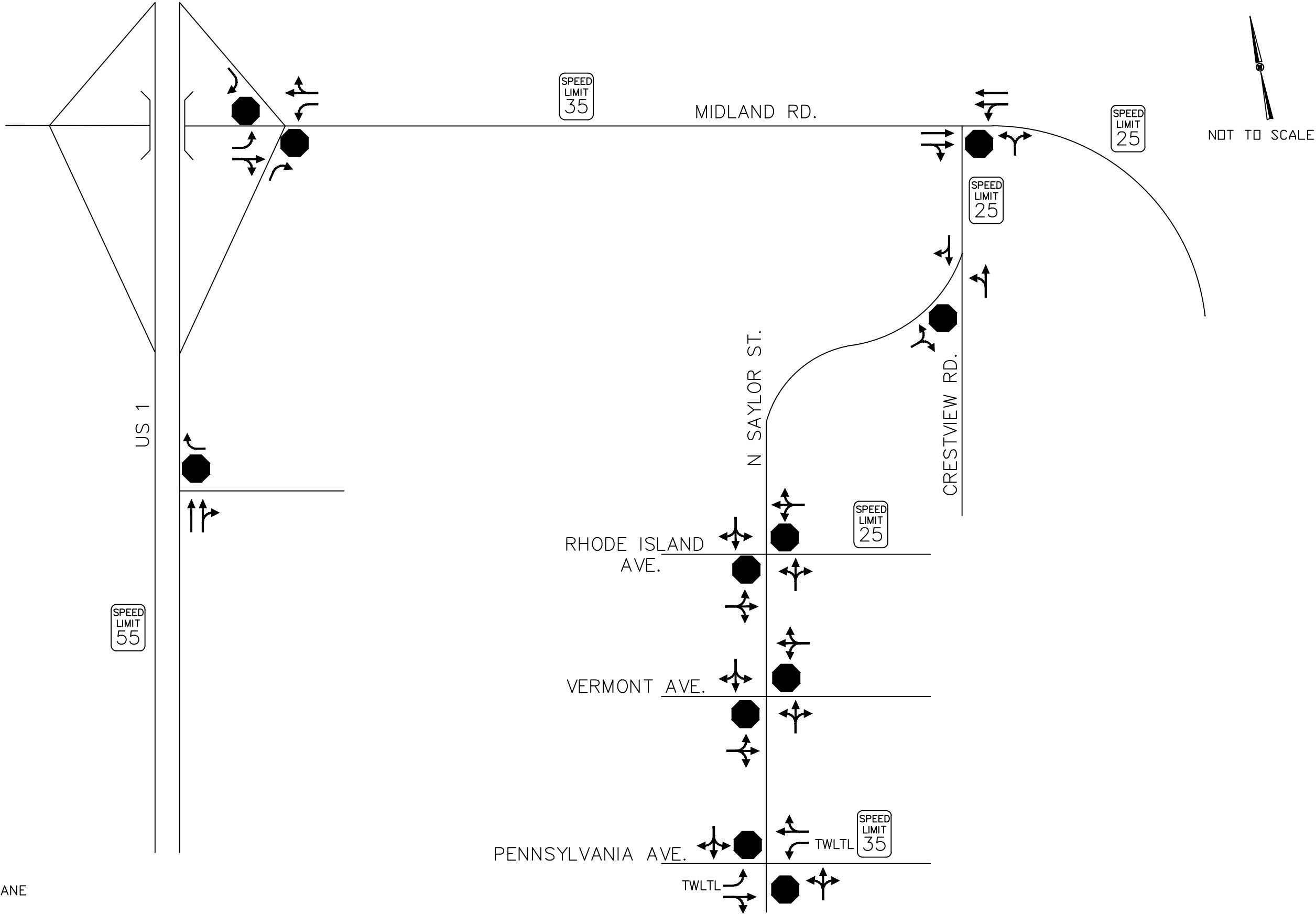
PATRICK'S POINTE
SOUTHERN PINES, NORTH CAROLINA

SITE PLAN

DATE: 10-11-2021
DRAWN BY: REK
CHECKED BY: REK
SCALE: 1" = 100'-0"
PROJECT #:
SHEET NUMBER:
L-1.1

LEGEND

- EXISTING LANE
- EXISTING STOP SIGN
-  POSTED SPEED LIMIT



3.0 Traffic Generation

The traffic generation potential for the proposed US 1 Multifamily project was determined using the traffic generation data in *Trip Generation* (Institute of Transportation Engineers, 10th Edition, 2017) with the exception of the daily rate for the apartments for which a rate of 7.32 trips per unit was used per the Town's UDO. As currently envisioned, the site will include up to 276 apartment units and 7,500 square feet (SF) of general office space. The trip generation for the proposed development is shown on Table 3.1.

Table 3.1 ITE Traffic Generation (Vehicles)								
Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
221	Apartments	276	d.u.	2,020	24	69	71	46
710	General Office Building	7,500	s.f.	86	29	5	2	8
Total Net New External Trips				2,106	53	74	73	54

Table 3.1 shows that the project is anticipated to generate approximately 2,106 new daily trips, 127 new trips during the AM peak hour, and 127 new trips during the PM peak hour on a typical weekday. To present a conservative analysis, no internal capture was assumed between the residential and office land uses.

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

4.0 Site Traffic Distribution

The proposed generated trips for the development were assigned to the surrounding roadway network. The directional distribution and assignment for the development were based on a review of surrounding land uses and existing traffic patterns in the area.

- 30% to/from downtown Southern Pines
- 30% to/from Pinehurst along Midland Road and W Pennsylvania Avenue
- 30% to/from the south along US 1
- 10% to/from the north along US 1

The site traffic distribution and percent assignment are shown on **Figure 4.1**. The US 1 – Midland Road interchange site traffic distribution is shown in **Figure 4.2**.



5.0 Projected Traffic Volumes

5.1 Existing Traffic

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

- Midland Road at US 1 Northbound Ramps September 8, 2021
- Midland Road at Crestview Road September 8, 2021
- N Saylor Street at Crestview Road September 8, 2021
- N Saylor Street at W Rhode Island Avenue September 8, 2021
- N Saylor Street at W Vermont Avenue September 8, 2021
- N Saylor Street at W Pennsylvania Avenue September 8, 2021
- US 1 NE Service Road at US 1 NE Service Road Access September 8, 2021

Moore County schools were in session when the counts were collected, therefore no adjustment was deemed necessary in the AM or PM peak hours.

Existing AM and PM peak hour traffic volumes, including volume adjustments, are shown on **Figures 5.1** and **5.2**, respectively, and the traffic count data are included in the Appendix.

5.2 Background Traffic Growth

Background traffic growth is the increase in traffic due to non-specific growth throughout the area. Based on a review of historic growth rates in the area, a 1.5% annual growth rate was applied to existing volumes up to the study year 2031. Background growth calculations are detailed on intersection spreadsheets included in the Appendix of this report.

5.3 Background Traffic

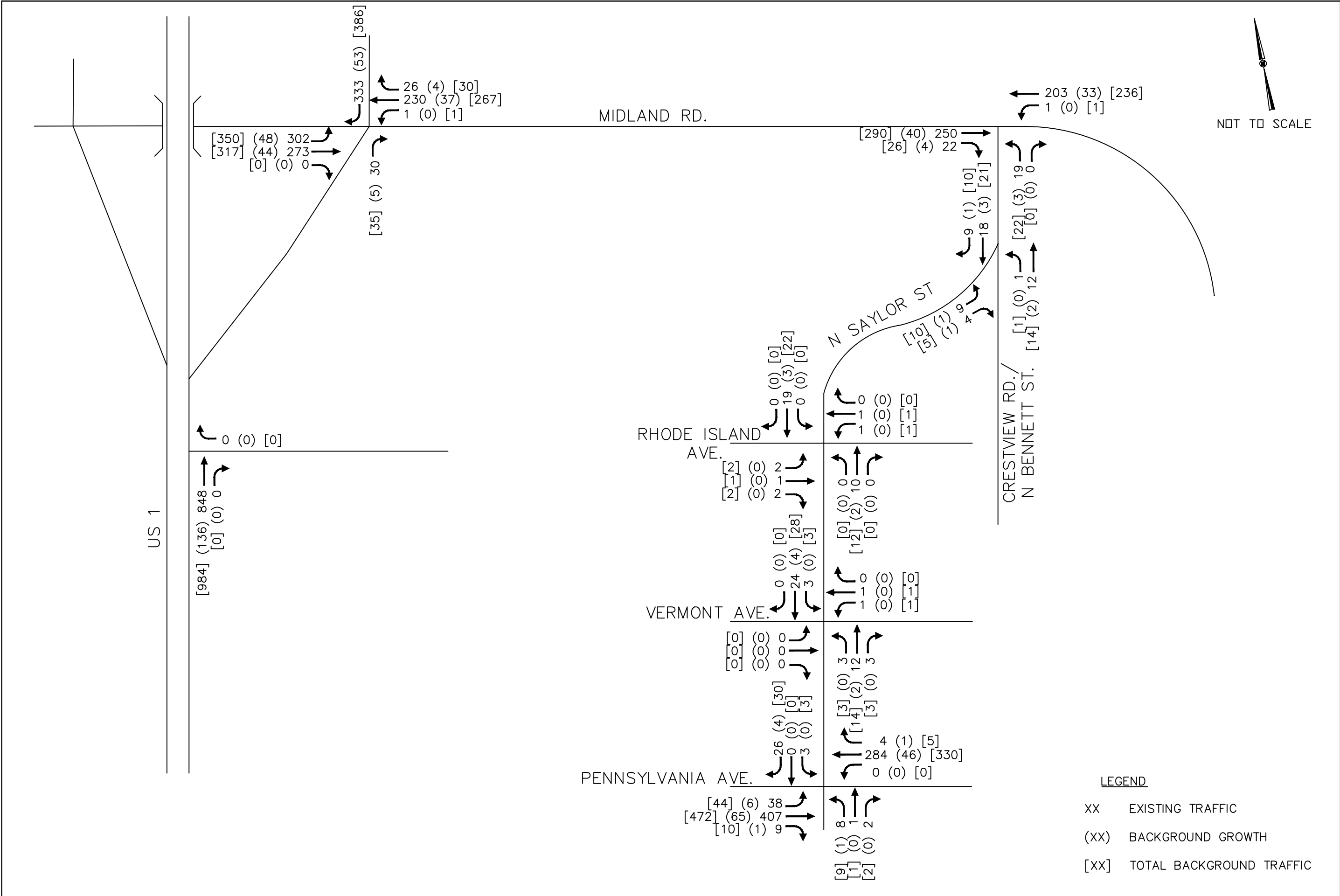
Background traffic volumes, consisting of existing traffic, background traffic growth, and approved development traffic, are shown on **Figures 5.1** and **5.2** for the AM and PM peak hours, respectively.

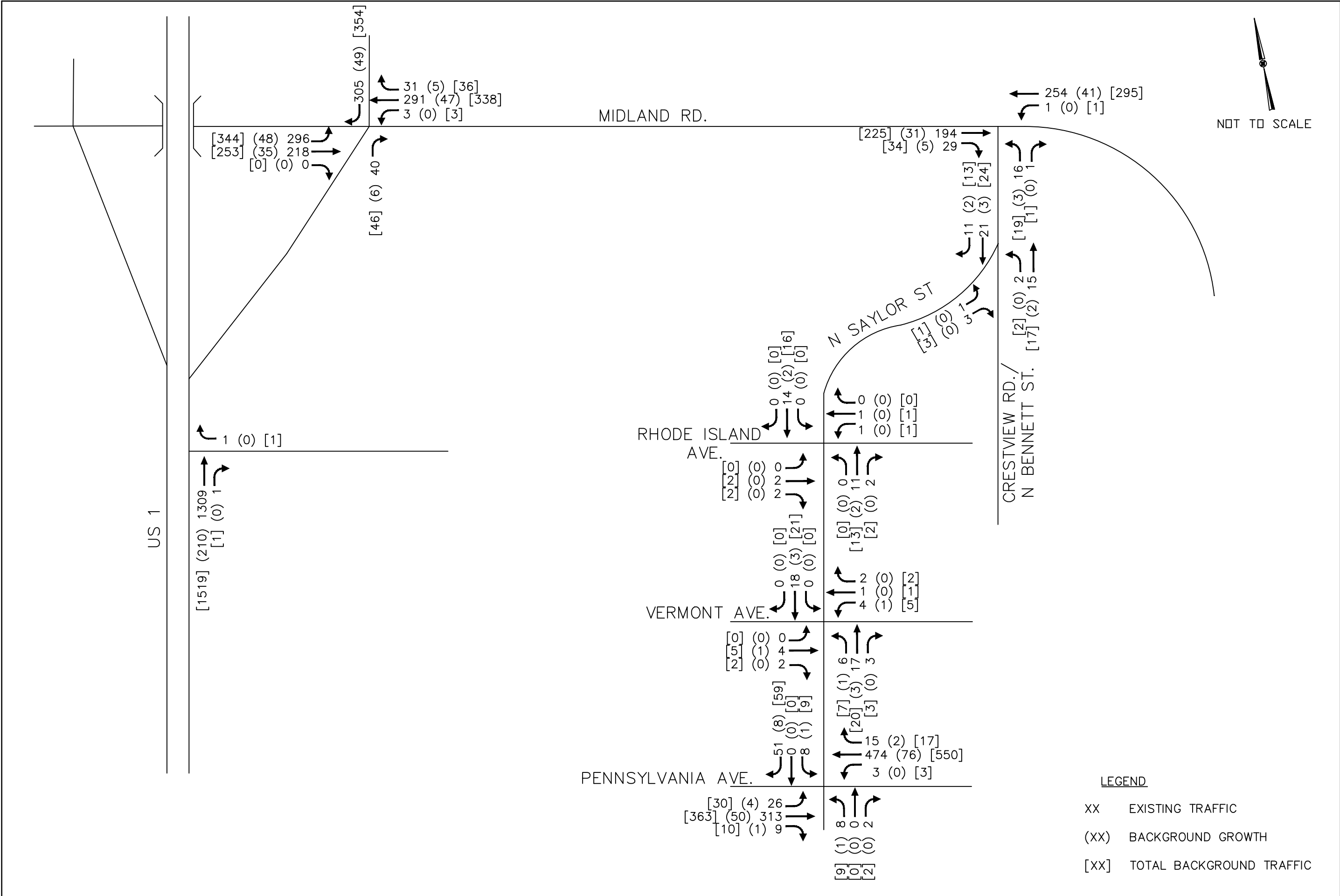
5.4 Site Traffic

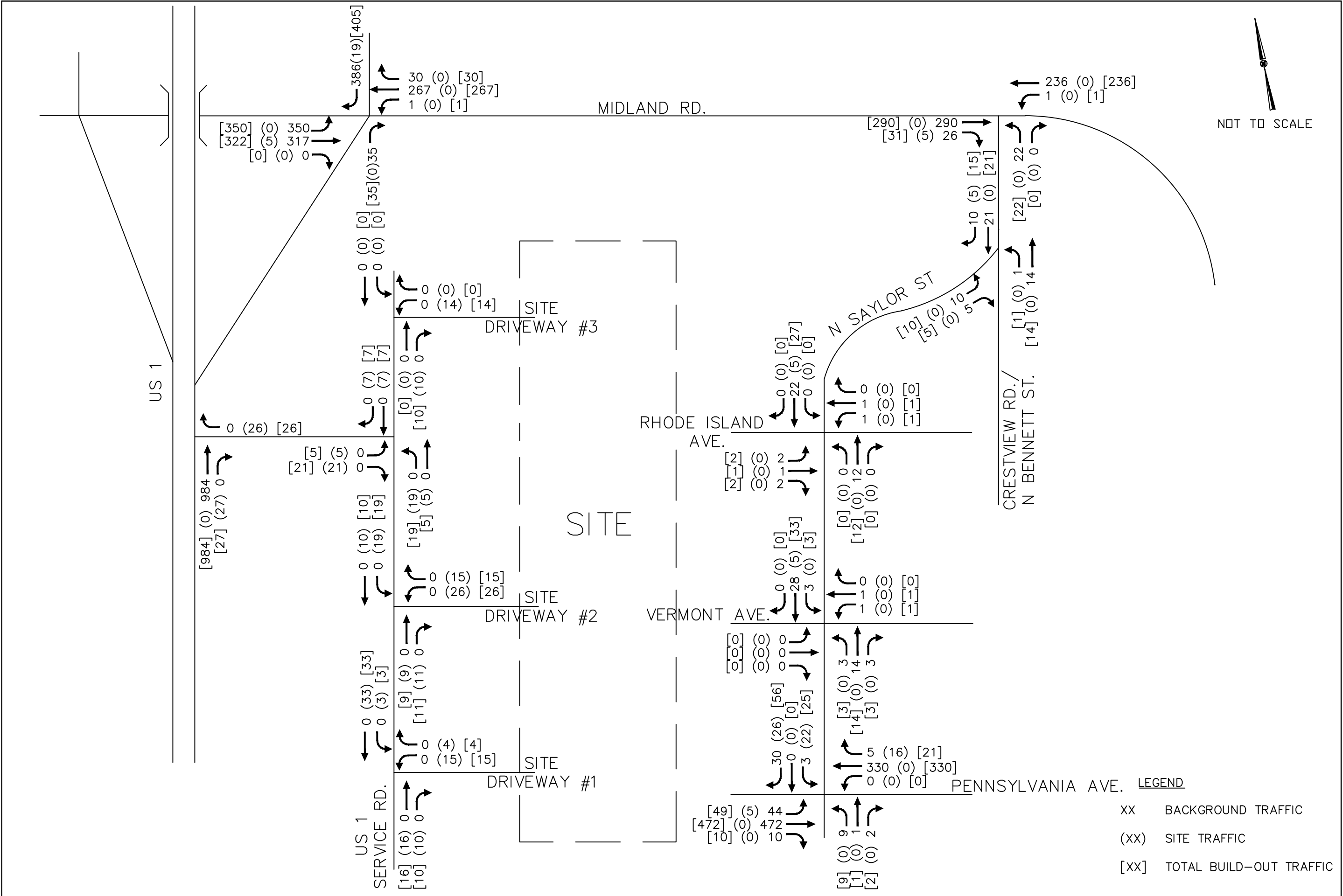
The projected site traffic for development was generated and assigned to the adjacent roadway network according to the distribution discussed previously in *Section 4.0*. The AM and PM peak hour site traffic volumes are shown on **Figures 5.3** and **5.4**, respectively.

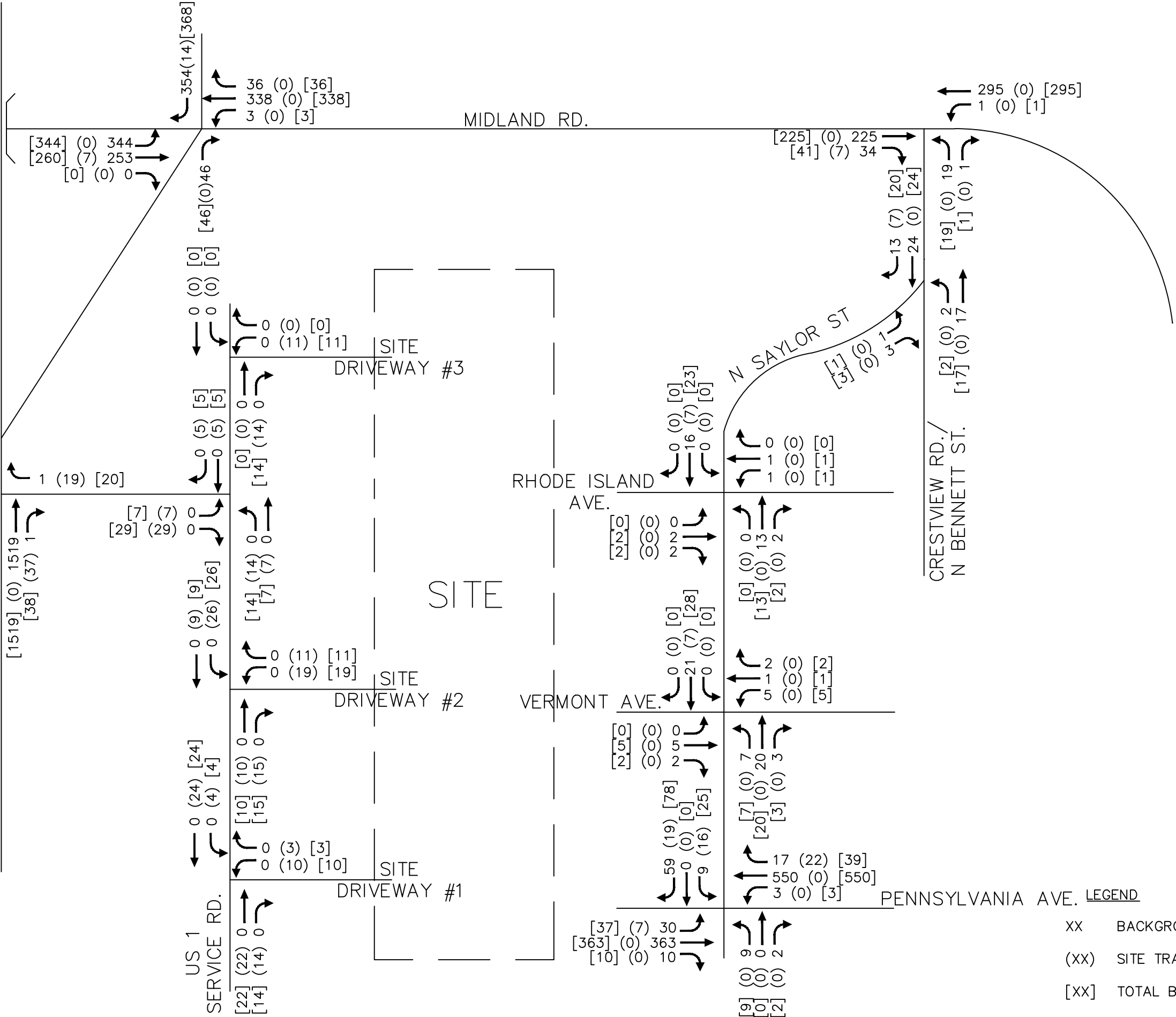
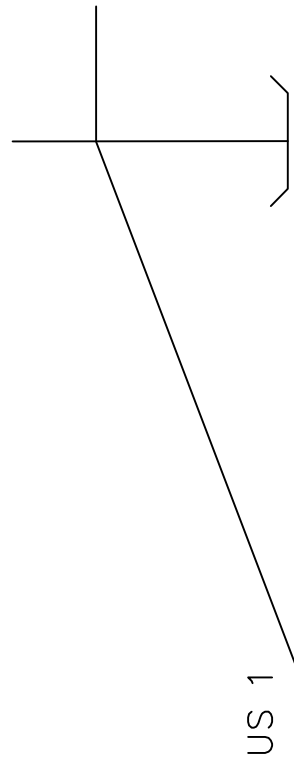
5.5 Build-Out Traffic

To obtain the projected (2031) build-out traffic volumes, the projected site traffic was added to the projected (2031) background traffic. **Figures 5.3** and **5.4** show the projected (2031) AM and PM peak hour build-out traffic volumes, respectively. Traffic volume calculations are detailed in intersection spreadsheets in the Appendix of this report.









NOT TO SCALE

- LEGEND
- XX BACKGROUND TRAFFIC
 - (XX) SITE TRAFFIC
 - [XX] TOTAL BUILD-OUT TRAFFIC



US 1 MULTIFAMILY
SOUTHERN PINES, NC
TRAFFIC IMPACT ANALYSIS

PROJECTED (2031) BUILD-OUT
PM PEAK HOUR TRAFFIC VOLUMES

FIGURE
5.4

6.0 Capacity Analysis

Capacity analyses (see Appendix) were performed for the AM and PM peak hours for the existing traffic condition and the projected (2024) background and build-out traffic conditions using Synchro/SimTraffic Version 10 software to determine the operating characteristics of the adjacent road network and the impacts of the proposed project. The NCDOT Congestion Management Group uses and reports Synchro Level-of-Service output for the analysis of intersection operating conditions. All capacity analyses are included in the Appendix and are briefly summarized in the following sub-sections.

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 (HCM)* 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 10 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

Existing peak hour factors (PHF) were used for existing intersections, while a PHF of 0.90 was used for new intersections.

6.1 Midland Road at US 1 Northbound Ramps

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (US 1 Northbound Ramps) in both peak hours on both the northbound and southbound sides of the intersection. The minor street approaches are expected to continue to operate with short delays in the 2031 background and build-out condition in both peak hours with only minor increases in delay due to site traffic. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.1 summarizes the operation of the intersection of Midland Road at US 1 Northbound Ramps for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.1 Level-of-Service Midland Road at US 1 Northbound Ramps (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	EB – B (10.4) WB – C (15.3)	EB – A (9.8) WB – C (14.5)
Background (2031) Traffic	EB – B (10.9) WB – C (19.6)	EB – B (10.1) WB – C (17.8)
Build-out (2031) Traffic	EB – B (11.0) WB – C (21.0)	EB – B (10.1) WB – C (18.4)

6.2 Midland Road at Crestview Road

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approach (Crestview Road) in both peak hours. The minor street approach is expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.2 summarizes the operation of the intersection of Midland Road at Crestview Road for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.2 Level-of-Service Midland Road at Crestview Road (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	EB – B (11.7) NBL – A (7.9)	EB – B (11.1) NBL – A (7.8)
Background (2031) Traffic	EB – B (12.5) NBL – A (8.1)	EB – B (11.8) NBL – A (7.9)
Build-out (2031) Traffic	EB – B (12.5) NBL – A (8.1)	EB – B (11.9) NBL – A (7.9)

6.3 N Saylor Street at Crestview Road

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (Crestview Road) in both peak hours. The minor street approaches are expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.3 summarizes the operation of the intersection of N Saylor Street at Crestview Road for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.3 Level-of-Service N Saylor Street at Crestview Road (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	NB – A (8.8) WBL – A (7.3)	NB – A (8.7) WBL – A (7.3)
Background (2031) Traffic	NB – A (8.9) WBL – A (7.3)	NB – A (8.7) WBL – A (7.4)
Build-out (2031) Traffic	NB – A (8.9) WBL – A (7.3)	NB – A (8.8) WBL – A (7.4)

6.4 N Saylor Street at W Rhode Island Avenue

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (W Rhode Island Avenue) in both peak hours. The minor street approaches are expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.4 summarizes the operation of the intersection of N Saylor Street at W Rhode Island Avenue for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.4 Level-of-Service N Saylor Street at W Rhode Island Avenue (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	EB – A (9.0) WB – A (9.5) NBL – A (7.4) SBL – A (7.3)	EB – A (8.9) WB – A (8.9) NBL – A (7.3) SBL – A (7.3)
Background (2031) Traffic	EB – A (9.0) WB – A (9.5) NBL – A (7.4) SBL – A (7.3)	EB – A (8.9) WB – A (8.9) NBL – A (7.3) SBL – A (7.3)
Build-out (2031) Traffic	EB – A (9.1) WB – A (9.6) NBL – A (7.4) SBL – A (7.3)	EB – A (9.0) WB – A (9.0) NBL – A (7.3) SBL – A (7.3)

6.5 N Saylor Street at W Vermont Avenue

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (W Vermont Avenue) in both peak hours. The minor street approaches are expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.5 summarizes the operation of the intersection of N Saylor Street at W Vermont Avenue for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.5 Level-of-Service N Saylor Street at W Vermont Avenue (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	EB – A (9.1) WB – A (9.6) NBL – A (7.3) SBL – A (7.3)	EB – A (9.0) WB – A (9.0) NBL – A (7.3) SBL – A (7.3)
Background (2031) Traffic	EB – A (9.2) WB – A (9.7) NBL – A (7.4) SBL – A (7.3)	EB – A (9.1) WB – A (9.1) NBL – A (7.3) SBL – A (7.3)
Build-out (2031) Traffic	EB – A (9.2) WB – A (9.7) NBL – A (7.4) SBL – A (7.3)	EB – A (9.2) WB – A (9.1) NBL – A (7.3) SBL – A (7.3)

6.6 N Saylor Street at Pennsylvania Avenue

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (N Saylor Street) in both peak hours. The minor street approaches are expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.6 summarizes the operation of the intersection of N Saylor Street at Pennsylvania Avenue for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.6 Level-of-Service N Saylor Street at Pennsylvania Avenue (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	NB – C (17.6) SB – B (12.4) EBL – A (8.0) WBL – A (8.3)	NB – C (19.7) SB – B (14.7) EBL – A (8.6) WBL – A (8.0)
Background (2031) Traffic	NB – C (21.0) SB – B (13.4) EBL – A (8.2) WBL – A (8.5)	NB – C (24.8) SB – C (17.0) EBL – A (8.9) WBL – A (8.1)
Build-out (2031) Traffic	NB – C (22.6) SB – C (17.6) EBL – A (8.2) WBL – A (8.5)	NB – D (26.9) SB – C (22.0) EBL – A (9.0) WBL – A (8.1)

6.7 US 1 Northbound at US 1 NE Service Road Access

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approach (US 1 NE Service Road Access) in both peak hours. The minor street approach is expected to continue operating with short delays in the 2031 background condition in both peak hours.

The following improvement is recommended at this intersection to accommodate projected site traffic:

- Construct an exclusive right-turn lane on US 1 Northbound with 50 feet of storage and appropriate tapers

With this improvement in place, the intersection is expected to continue to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.7 summarizes the operation of the intersection of US 1 Northbound at US 1 NE Service Road Access for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.7 Level-of-Service US 1 Northbound at US 1 NE Service Road Access (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	WB – B (12.4)	WB – C (15.3)
Background (2031) Traffic	WB – B (13.4)	WB – C (17.3)
Build-out (2031) Traffic	WB – B (14.0)	WB – C (18.1)

6.8 US 1 NE Service Road at Site Driveway #1

The US 1 Multifamily project proposes to construct a full movement site driveway with one ingress lane and one egress lane on the US 1 NE Service Road approximately 1,000 feet south of US 1 NE Service Road Access. To accommodate site traffic at this intersection, the following roadway improvements are recommended:

- Pave and stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Pave and stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With these improvements in place, the intersection is expected to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.8 summarizes the operation of the intersection of US 1 NE Service Road at Proposed Site Driveway #1 for the projected (2031) build-out traffic condition.

Table 6.8 Level-of-Service US 1 NE Service Road at Proposed Site Driveway #1 (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2031) Traffic	WB – A (8.9) SBL – A (7.3)	WB – A (8.8) SBL – A (7.3)

6.9 US 1 NE Service Road at Site Driveway #2

The US 1 Multifamily project proposes to construct a full movement site driveway with one ingress lane and one egress lane on the US 1 NE Service Road approximately 200 feet south of US 1 NE Service Road Access. To accommodate site traffic at this intersection, the following roadway improvements are recommended:

- Pave and stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Pave and stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With these improvements in place, the intersection is expected to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.9 summarizes the operation of the intersection of US 1 NE Service Road at Site Driveway #2 for the projected (2031) build-out traffic condition.

Table 6.9 Level-of-Service US 1 NE Service Road at Site Driveway #2 (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2031) Traffic	WB – A (8.9) SBL – A (7.3)	WB – A (8.9) SBL – A (7.3)

6.10 US 1 NE Service Road at US 1 NE Service Road Access

The US 1 Multifamily project proposes to construct a full movement site driveway with one ingress lane and one egress lane tied into the US 1 NE Service Road approximately 200 feet north of Proposed Site Driveway #2. To accommodate site traffic at this intersection, the following roadway improvements are recommended:

- Operate the eastbound approach (US 1 NE Service Road Access) as a free-flow movement with stop-control on the northbound and southbound approaches

With these improvements in place, the intersection is expected to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.10 summarizes the operation of the intersection of US 1 NE Service Road at US 1 NE Service Road Access for the projected (2031) build-out traffic condition.

Table 6.10 Level-of-Service* US 1 NE Service Road at US 1 NE Service Road Access (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2031) Traffic	NB – A (4.0) SB – A (3.8)	NB – A (4.0) SB – A (2.9)

*SimTraffic results were reported at this intersection as Synchro does not report delays for the proposed control condition

6.11 US 1 NE Service Road at Site Driveway #3

The US 1 Multifamily project proposes to construct a full movement site driveway with one ingress lane and one egress lane tied into US 1 NE Service Road approximately 450 feet north of US 1 NE Service Road Access. To accommodate site traffic at this intersection, the following roadway improvements are recommended:

- Pave and stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Pave and stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With these improvements in place, the intersection is expected to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.11 summarizes the operation of the intersection of US 1 NE Service Road at Proposed Site Driveway #3 for the projected (2031) build-out traffic condition.

Table 6.11 Level-of-Service US 1 NE Service Road at Site Driveway #3 (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2031) Traffic	WB – A (8.6) SBL – A (7.3)	WB – A (8.6) SBL – A (7.3)

7.0 Recommendations

The following improvements are recommended to be performed as part of the proposed US 1 Multifamily development:

US 1 at US 1 NE Service Road Access:

- Construct an exclusive right-turn lane on northbound US 1 with 50 feet of storage and appropriate tapers

US 1 NE Service Road at Site Driveway #1:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

US 1 NE Service Road at Site Driveway #2:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

US 1 NE Service Road at US 1 NE Service Road Access

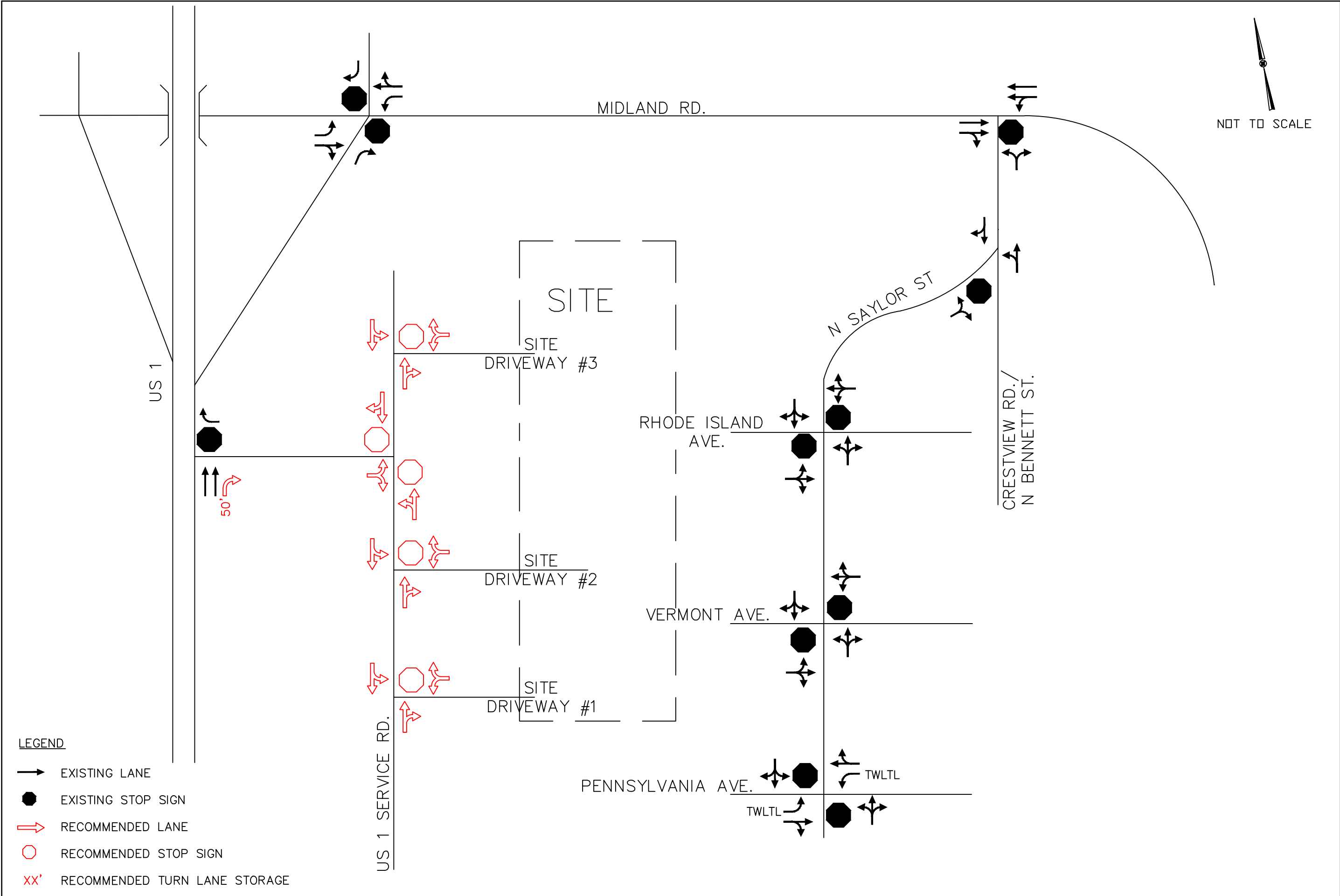
- Operate the eastbound approach (US 1 NE Service Road Access) as a free-flow movement with stop-control on the northbound and southbound approaches

US 1 NE Service Road at Site Driveway #3:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With the recommended improvements in place, analysis indicates that all study intersections are expected to operate at acceptable levels of service with no queuing issues at project build-out.

Figure 7.1 shows the recommended roadway laneage.

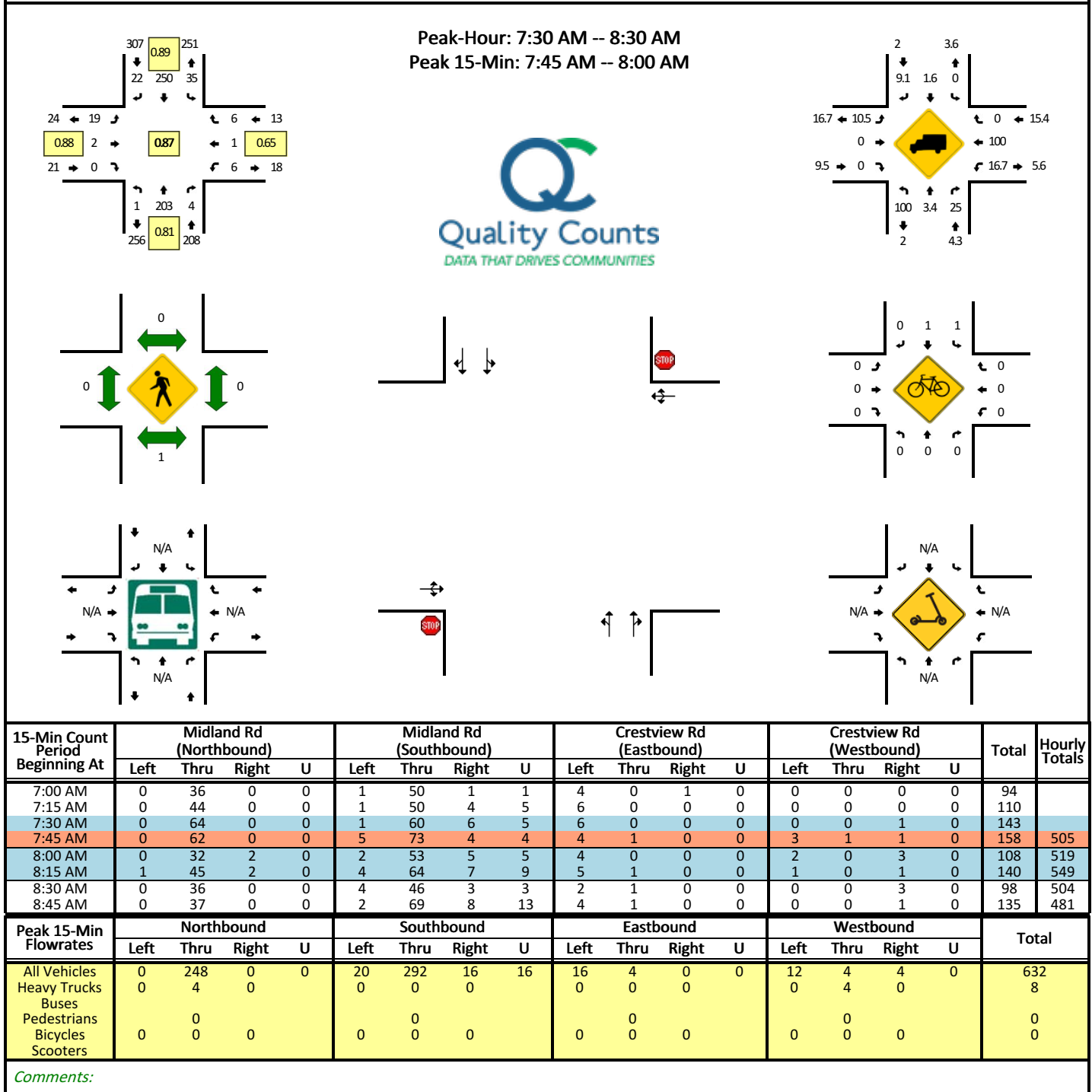


Appendix

Appendix A: Traffic Count Data

LOCATION: Midland Rd -- Crestview Rd
CITY/STATE: Southern Pines, NC

QC JOB #: 15560201
DATE: Wed, Sep 8 2021

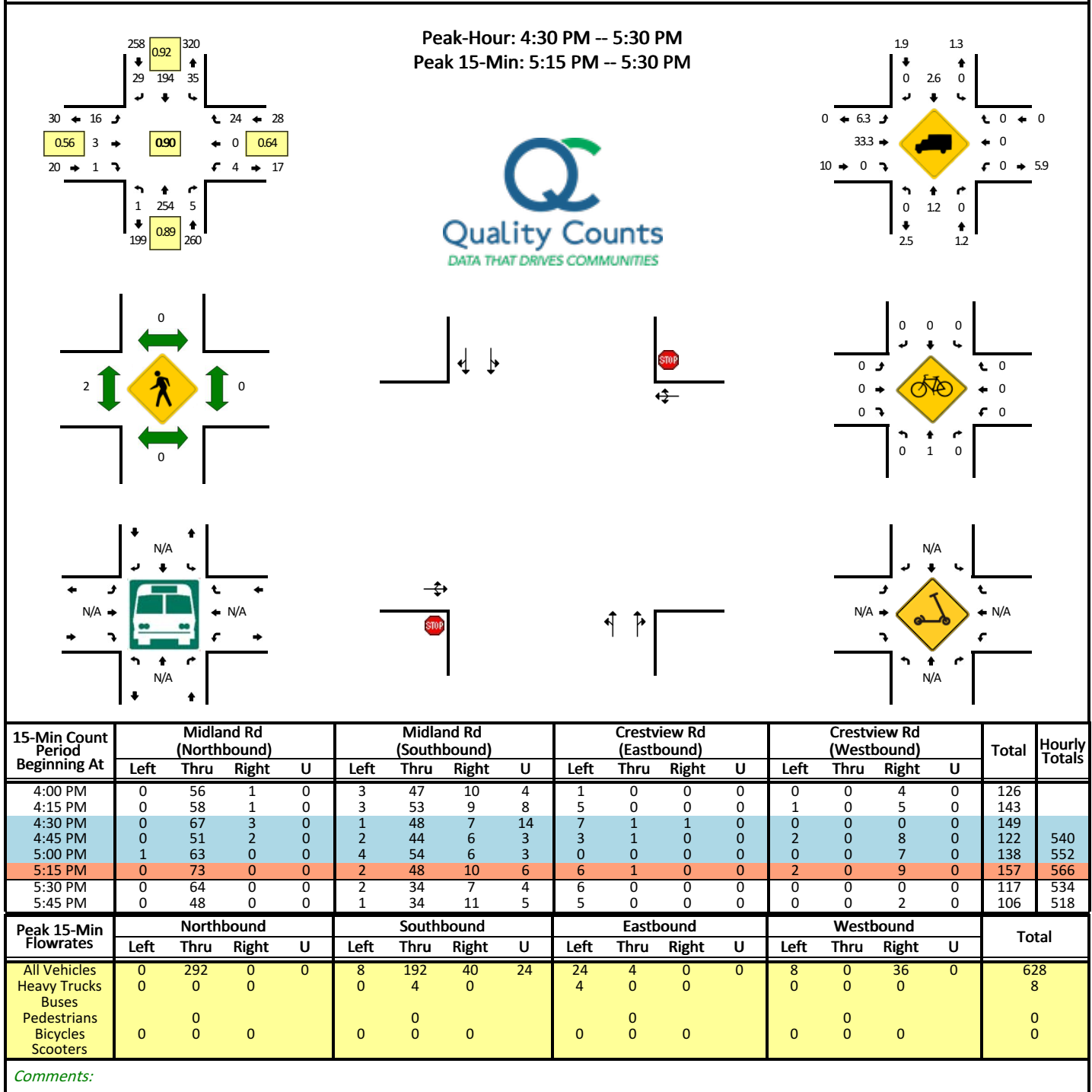


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Midland Rd -- Crestview Rd
CITY/STATE: Southern Pines, NC

QC JOB #: 15560202
DATE: Wed, Sep 8 2021

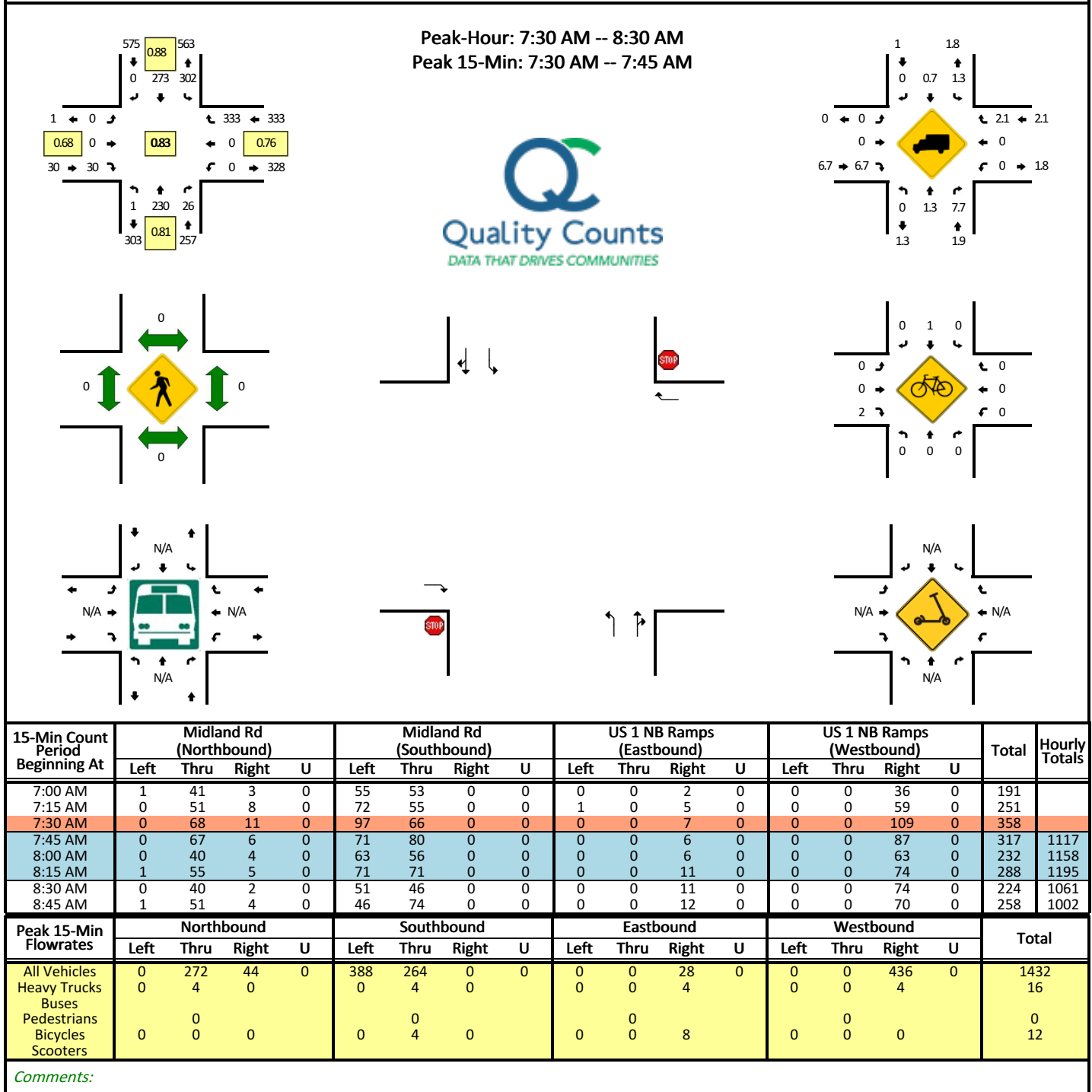


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

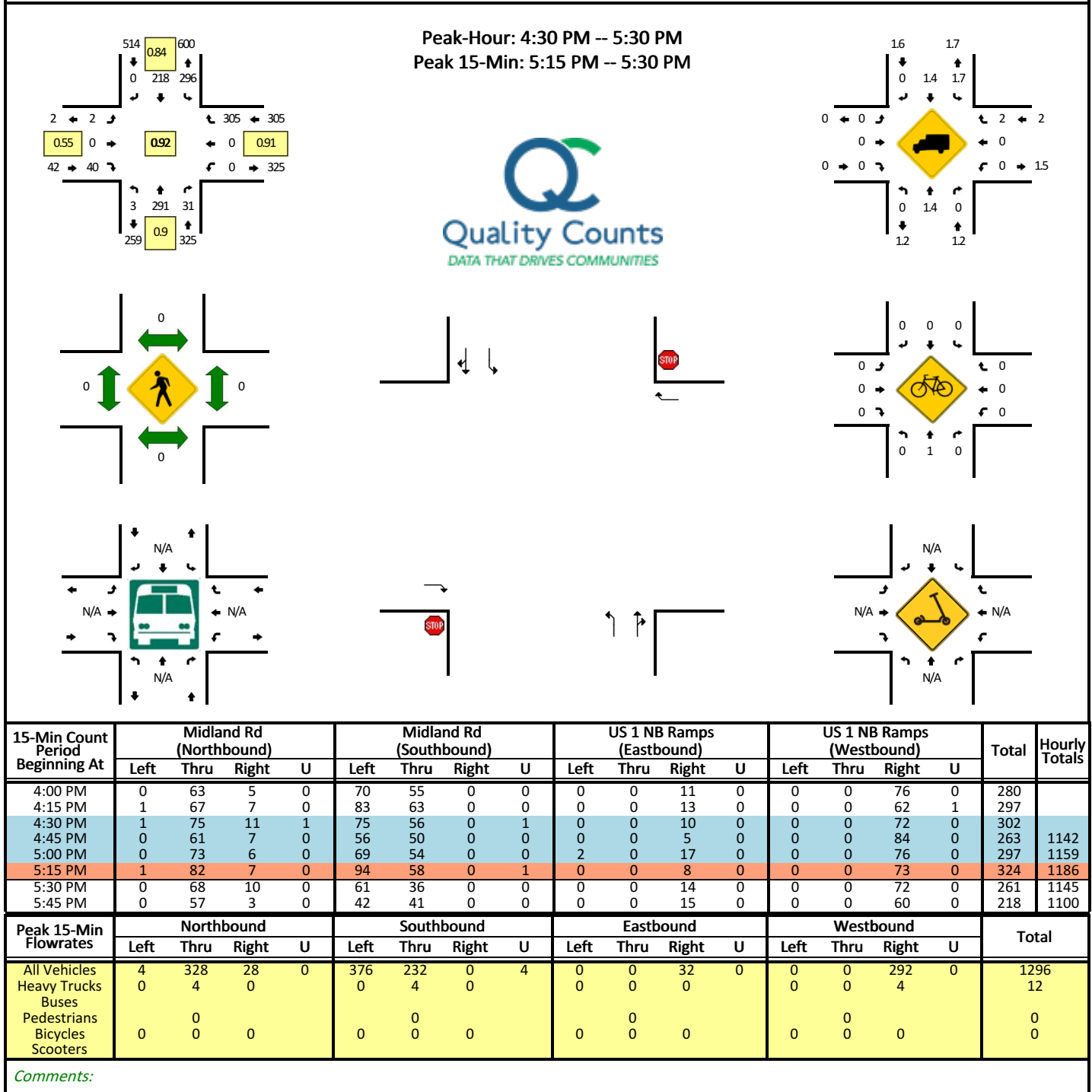
LOCATION: Midland Rd -- US 1 NB Ramps
CITY/STATE: Southern Pines, NC

QC JOB #: 15560203
DATE: Wed, Sep 8 2021



Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

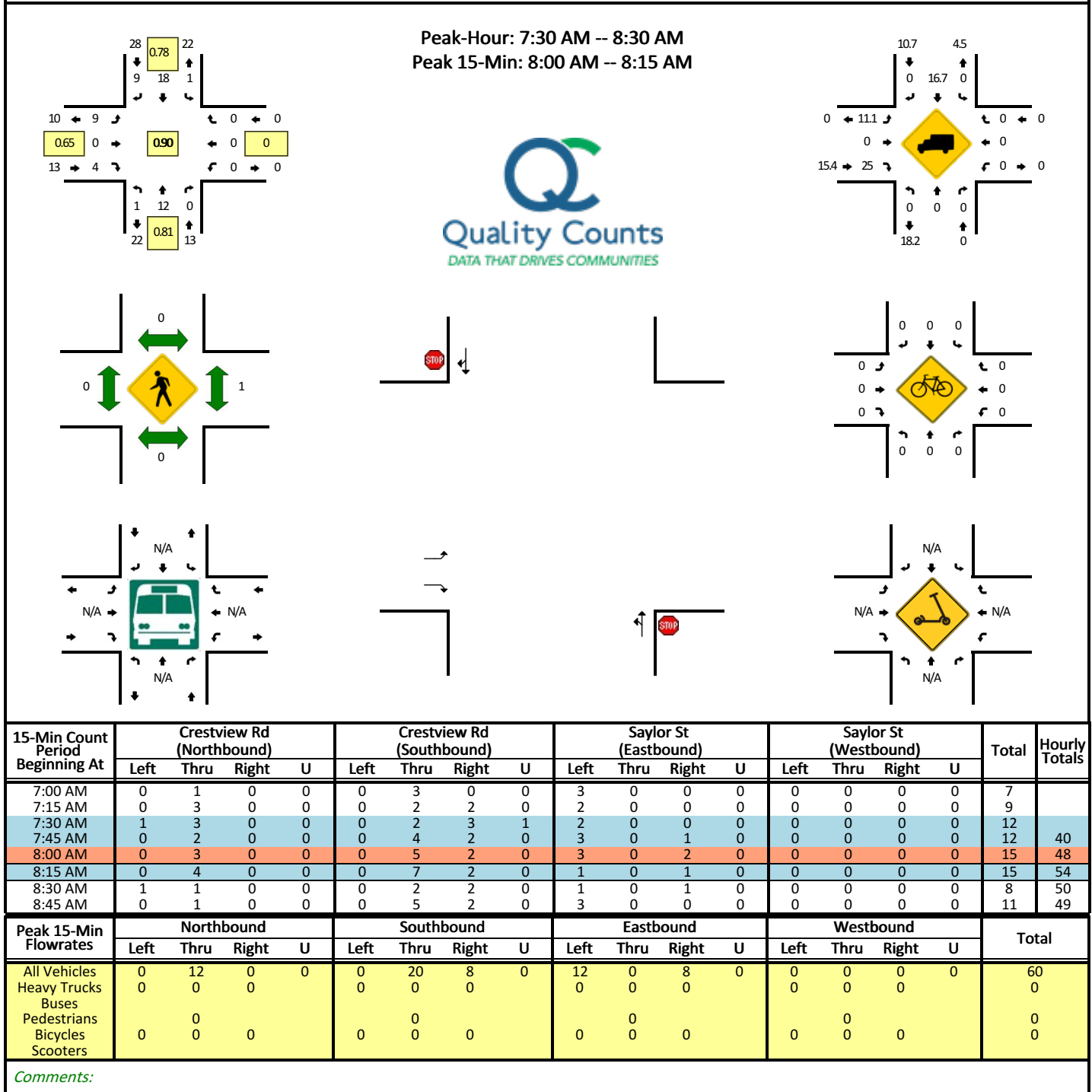
LOCATION: Midland Rd -- US 1 NB Ramps**QC JOB #:** 15560204**CITY/STATE:** Southern Pines, NC**DATE:** Wed, Sep 8 2021

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Crestview Rd -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560205
DATE: Wed, Sep 8 2021

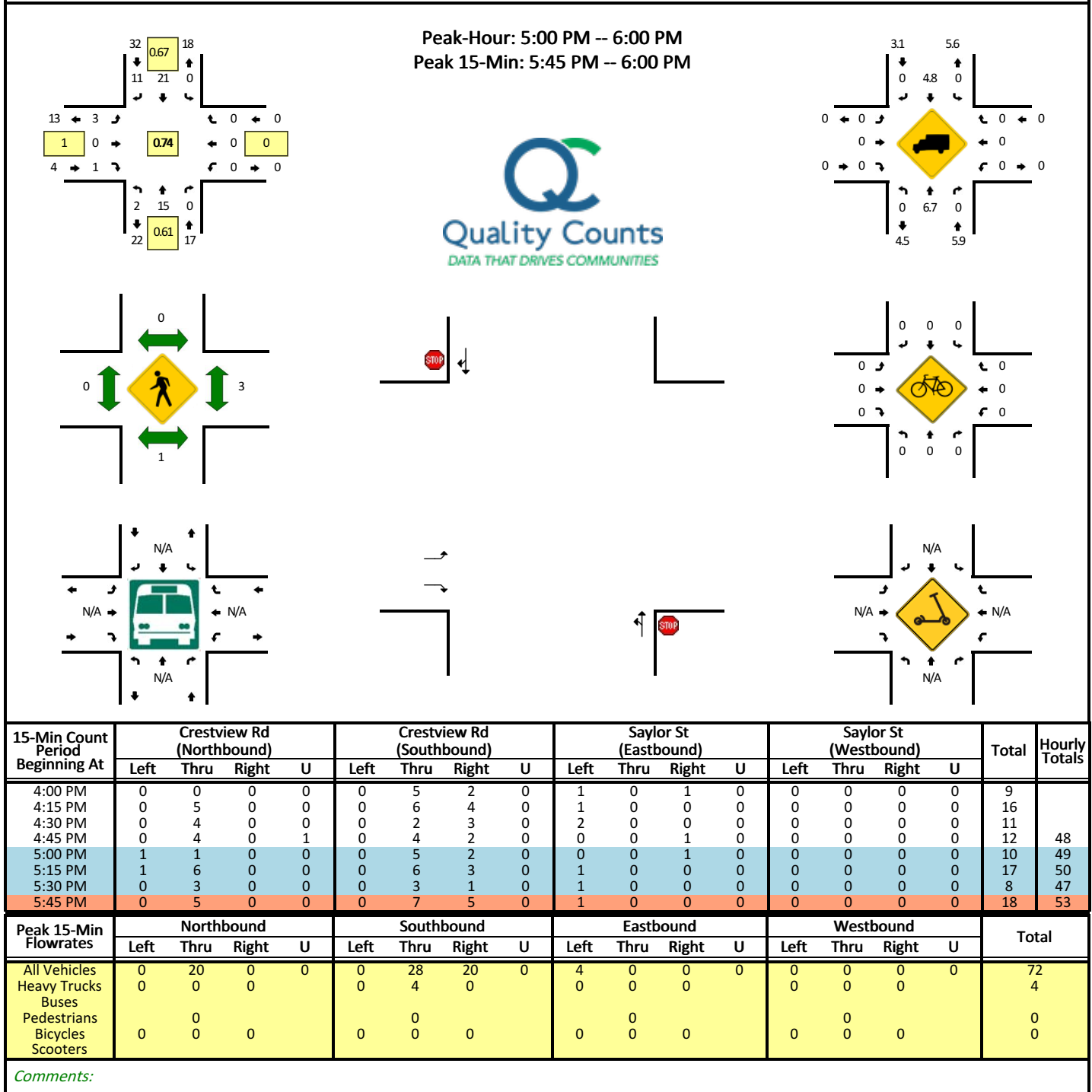


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Crestview Rd -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560206
DATE: Wed, Sep 8 2021

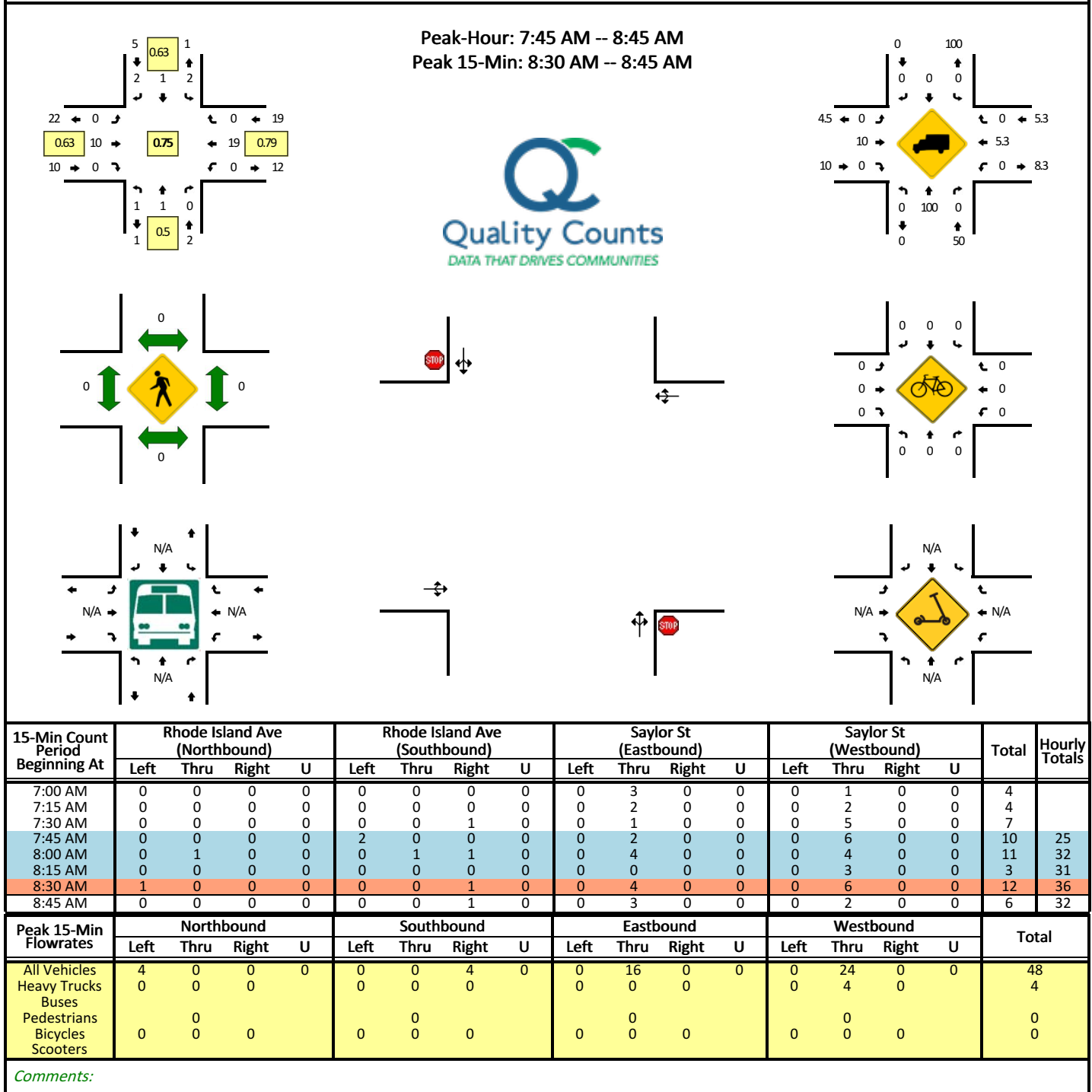


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Rhode Island Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560207
DATE: Wed, Sep 8 2021

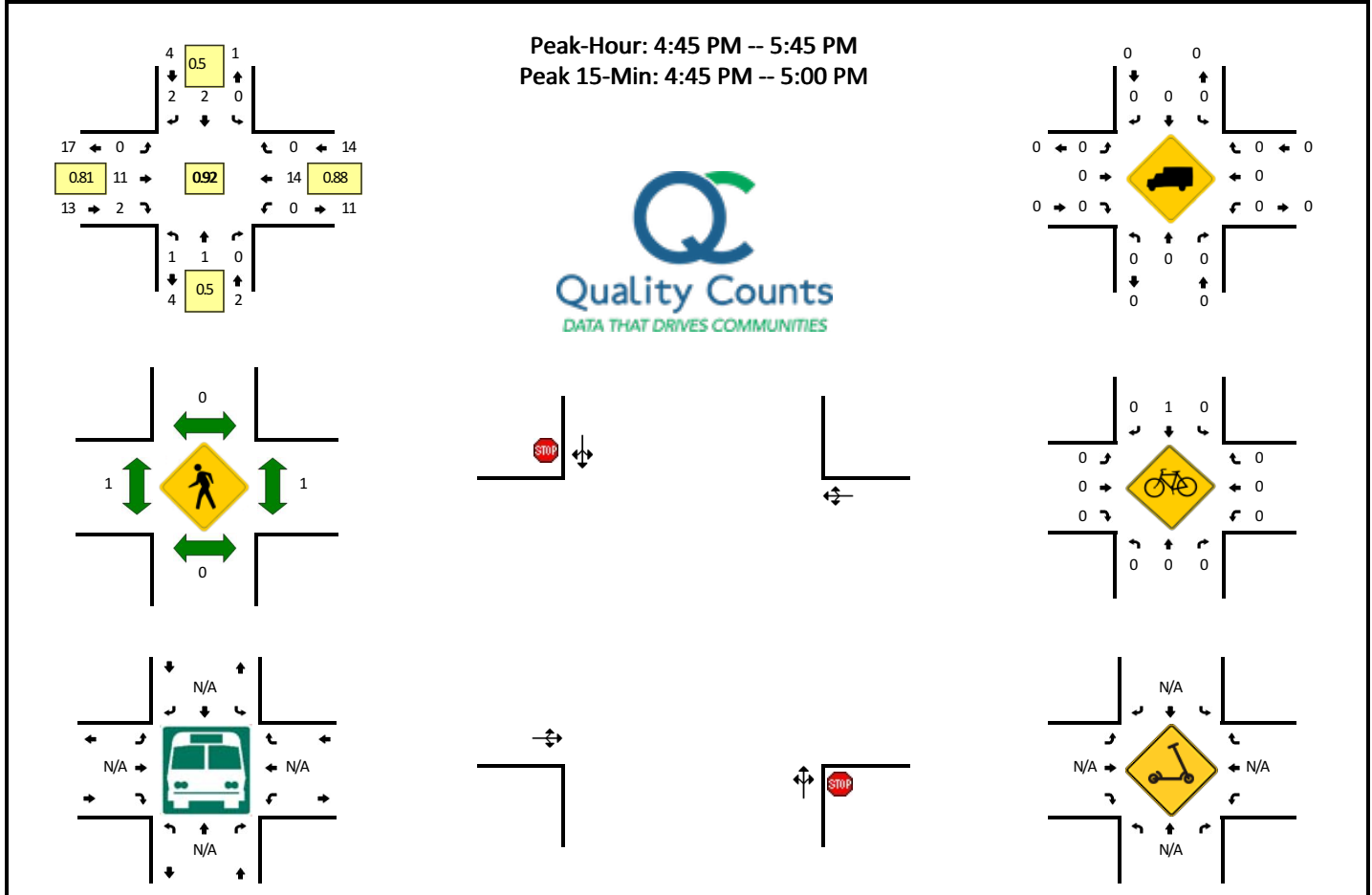


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Rhode Island Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560208
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	Rhode Island Ave (Northbound)				Rhode Island Ave (Southbound)				Saylor St (Eastbound)				Saylor St (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	1	0	0	1	0	0	0	0	4	0	0	6	
4:15 PM	2	0	0	0	1	0	0	0	1	3	0	0	0	3	0	0	10	
4:30 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	3	0	0	6	
4:45 PM	1	0	0	0	0	1	0	0	0	3	0	0	0	4	0	0	9	31
5:00 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	4	0	0	7	32
5:15 PM	0	1	0	0	0	0	1	0	0	3	0	0	0	3	0	0	8	30
5:30 PM	0	0	0	0	0	1	1	0	0	3	1	0	0	3	0	0	9	33
5:45 PM	1	1	0	0	0	0	0	0	0	2	0	0	0	2	1	0	7	31
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	4	0	0	0	0	4	0	0	0	12	0	0	0	16	0	0	36	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4	
Scoters																		

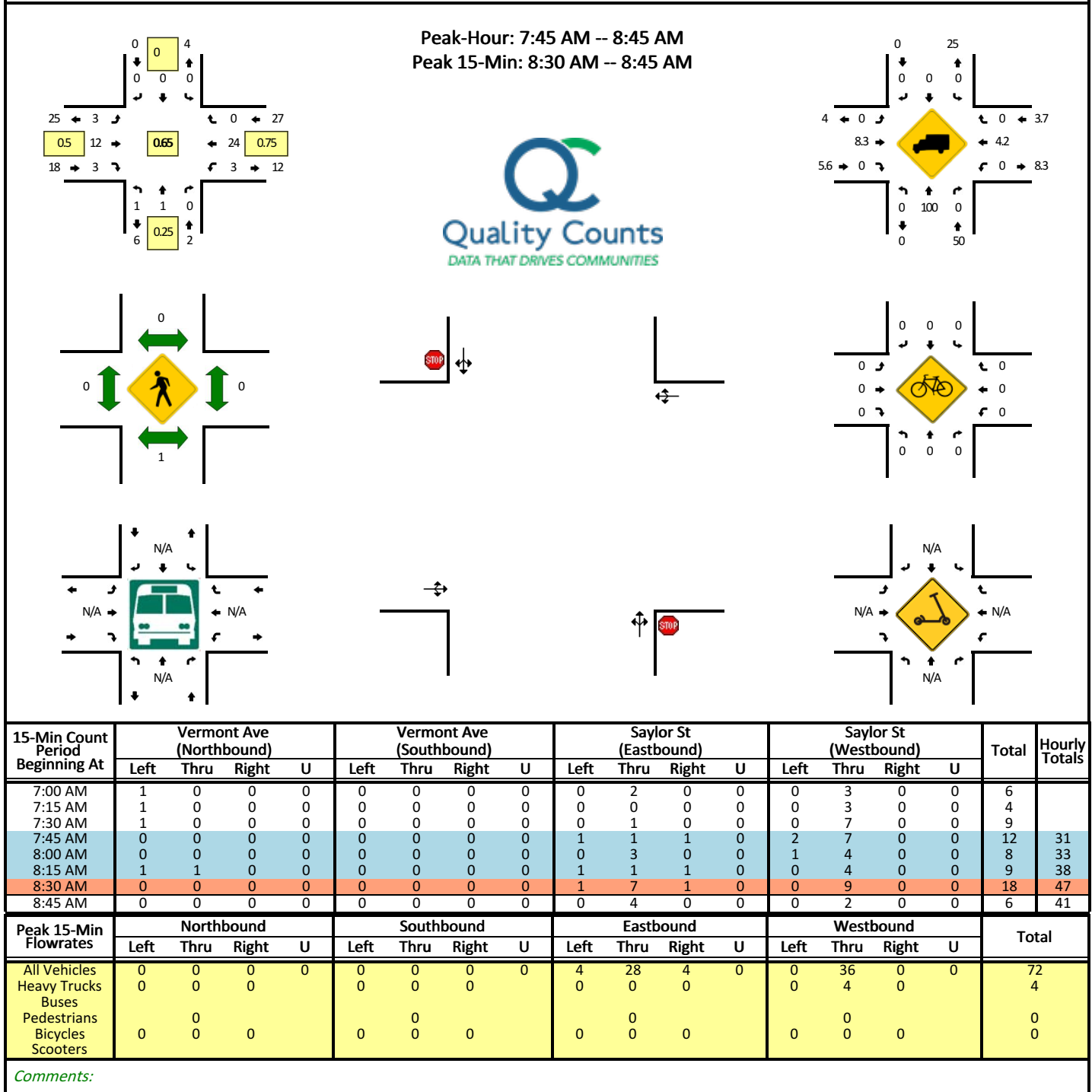
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Vermont Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560209
DATE: Wed, Sep 8 2021

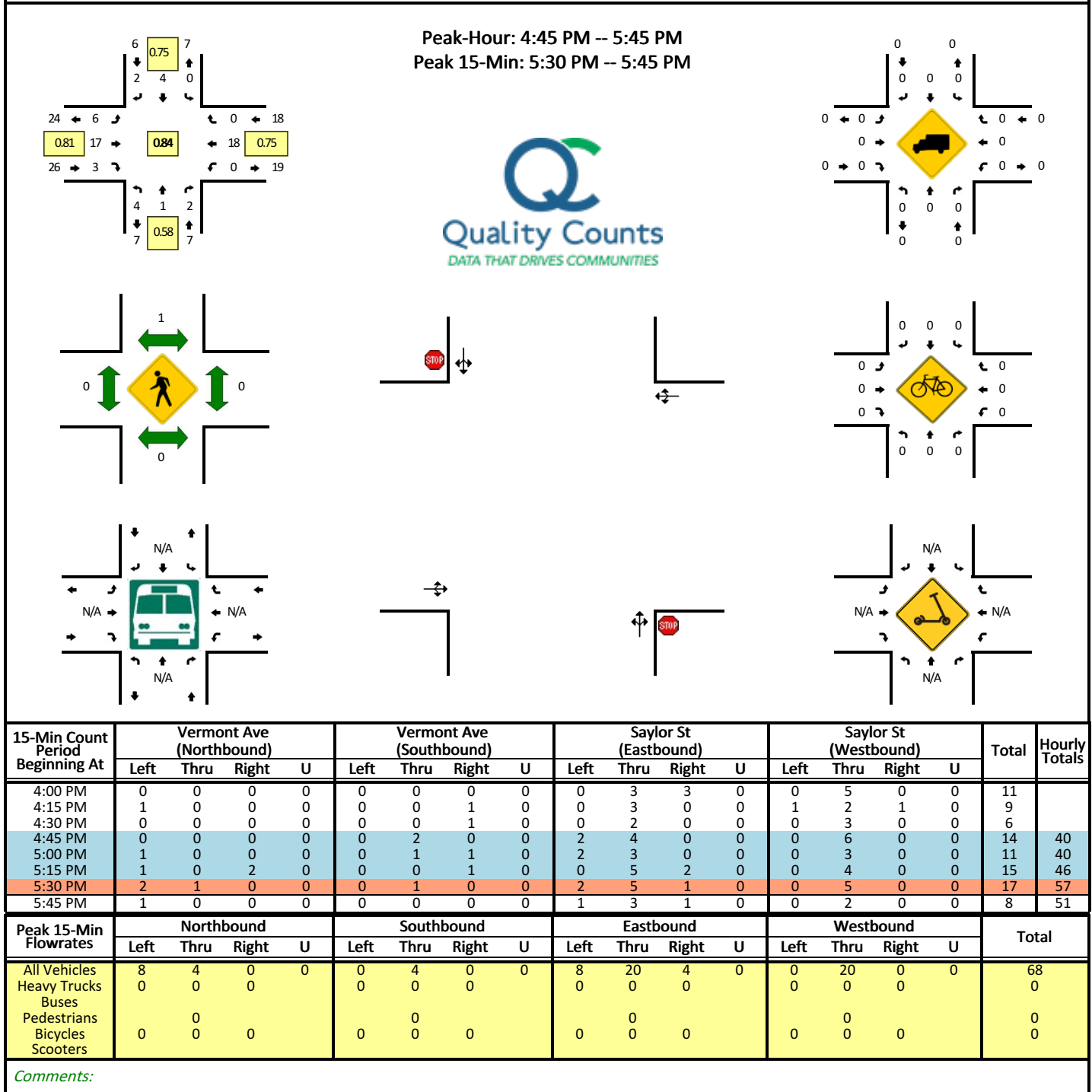


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Vermont Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560210
DATE: Wed, Sep 8 2021

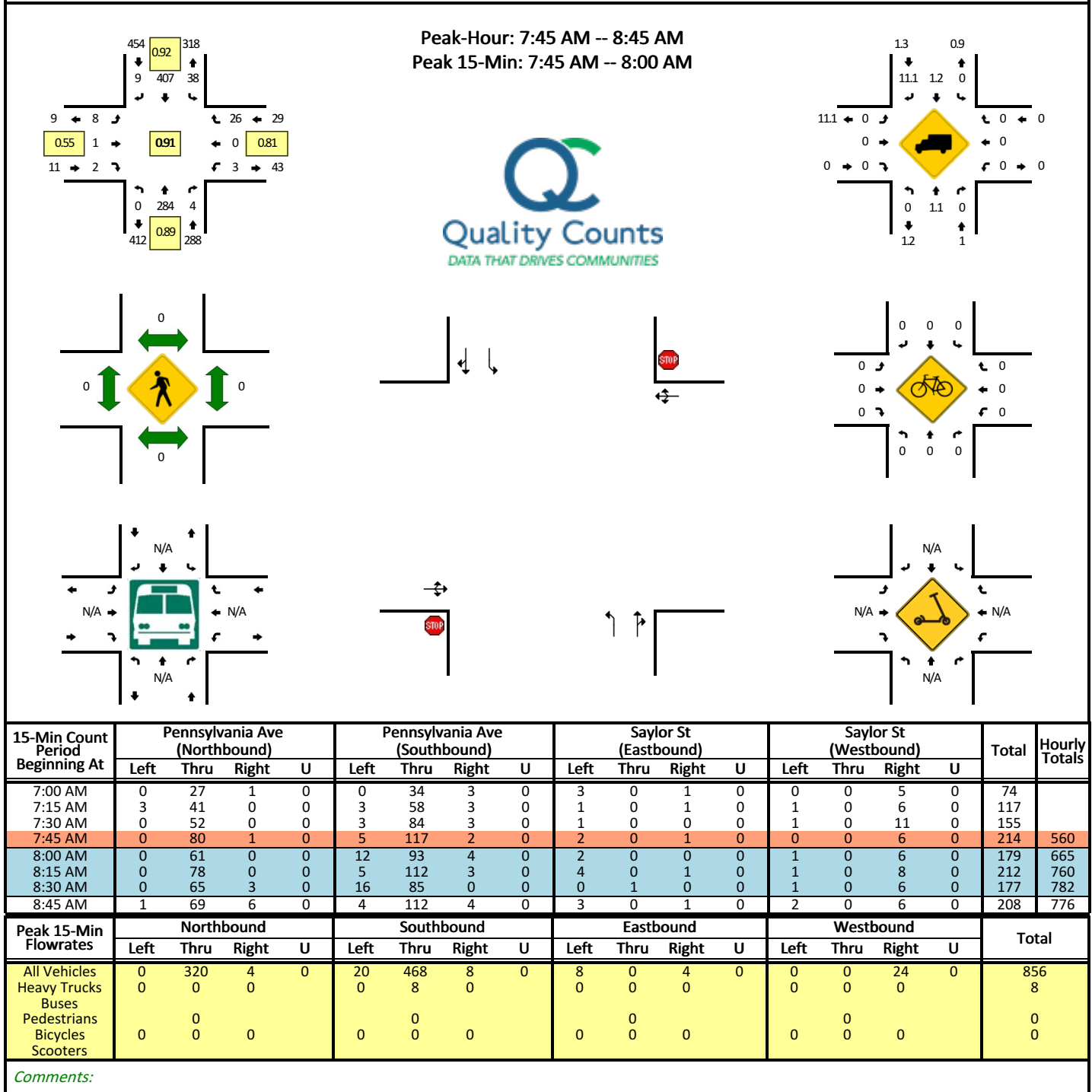


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Pennsylvania Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560211
DATE: Wed, Sep 8 2021

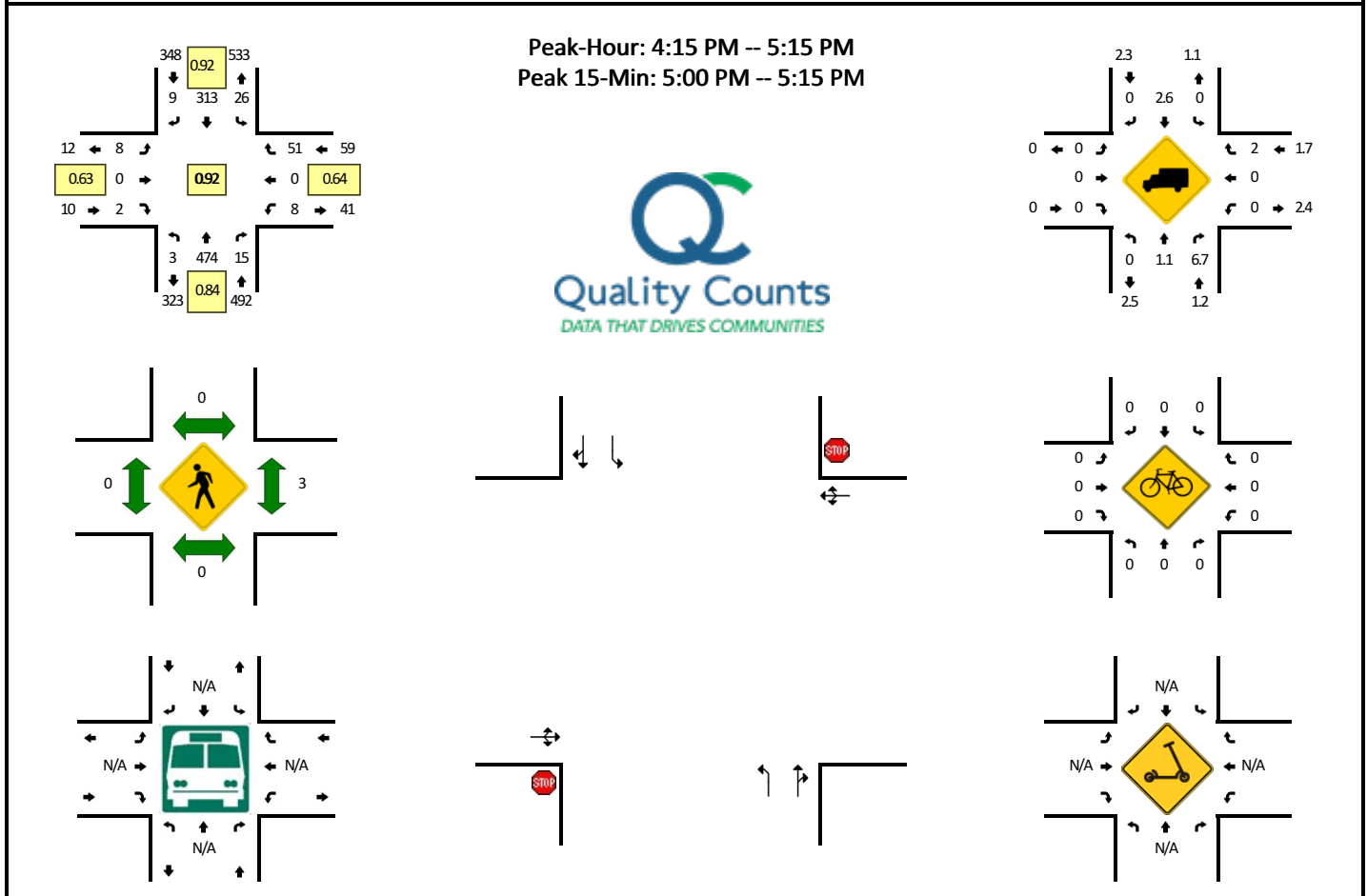


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Pennsylvania Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560212
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	Pennsylvania Ave (Northbound)				Pennsylvania Ave (Southbound)				Saylor St (Eastbound)				Saylor St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	70	3	0	10	75	2	0	2	0	3	0	2	0	18	0	187	
4:15 PM	1	114	8	0	3	89	3	0	2	0	0	0	3	0	11	0	234	
4:30 PM	0	113	2	0	5	88	1	0	1	0	0	0	1	0	8	0	219	
4:45 PM	2	103	3	0	12	70	2	0	2	0	1	0	0	0	13	0	208	848
5:00 PM	0	144	2	0	6	66	3	0	3	0	1	0	4	0	19	0	248	909
5:15 PM	0	86	1	0	8	70	1	0	1	0	1	0	2	0	5	0	175	850
5:30 PM	2	88	2	0	14	73	6	0	1	0	0	0	3	1	7	0	197	828
5:45 PM	1	70	1	0	6	53	4	0	0	0	2	0	1	0	5	0	143	763
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	576	8	0	24	264	12	0	12	0	4	0	16	0	76	0	992	
Heavy Trucks	0	4	0	0	0	12	0	0	0	0	0	0	0	0	0	0	16	
Buses																		
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters																		

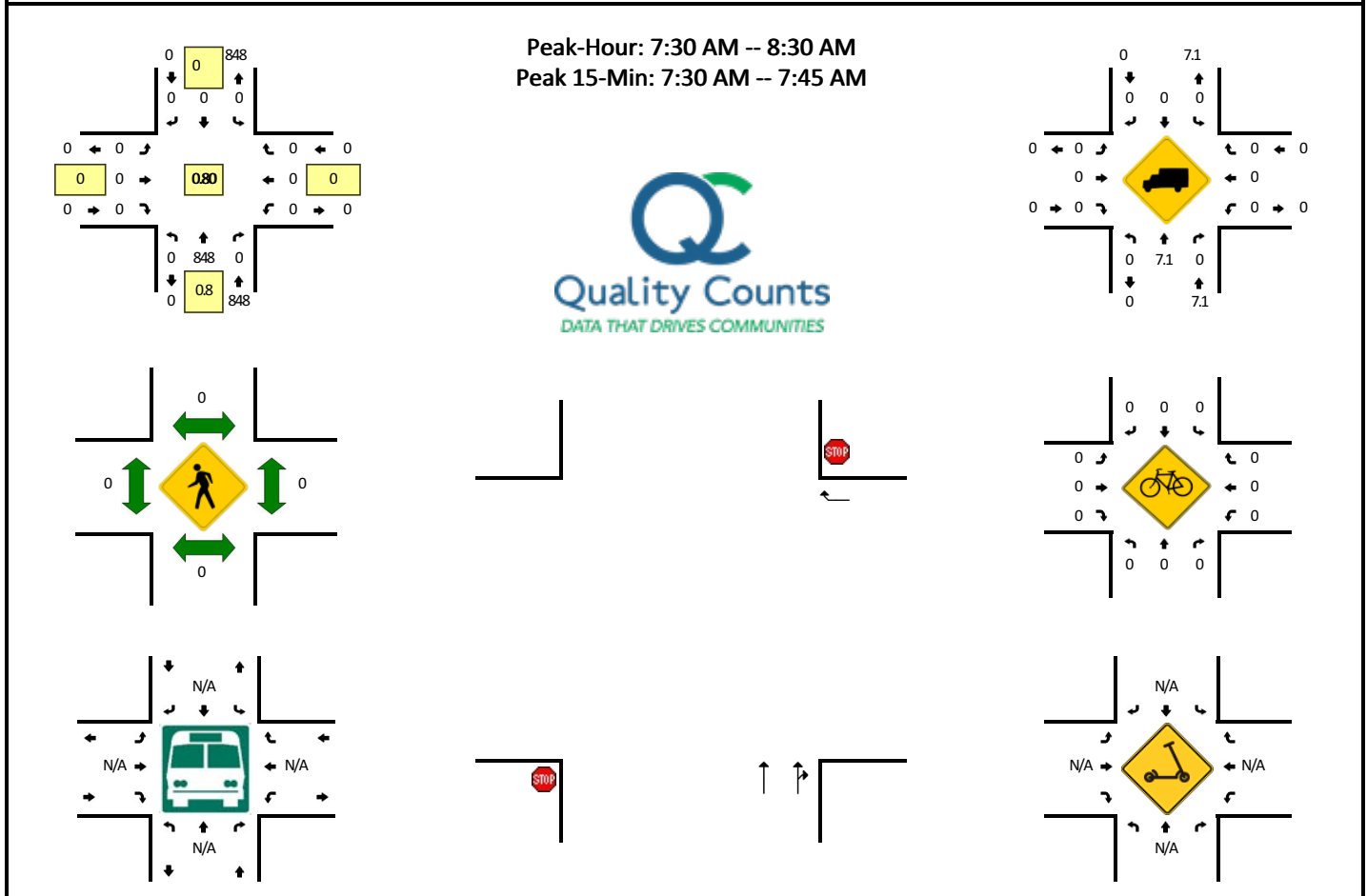
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: US 1 NB -- US 1 Northbound Service Road Access
CITY/STATE: Southern Pines, NC

QC JOB #: 15560213
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	US 1 NB (Northbound)				US 1 NB (Southbound)				US 1 Northbound Service Road Access (Eastbound)				US 1 Northbound Service Road Access (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151	
7:15 AM	0	199	0	0	0	0	0	0	0	0	0	0	0	0	1	0	200	
7:30 AM	0	265	0	0	0	0	0	0	0	0	0	0	0	0	0	0	265	
7:45 AM	0	215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215	831
8:00 AM	0	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	167	847
8:15 AM	0	201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201	848
8:30 AM	0	183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183	766
8:45 AM	0	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	731
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	1060	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1060	
Heavy Trucks	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

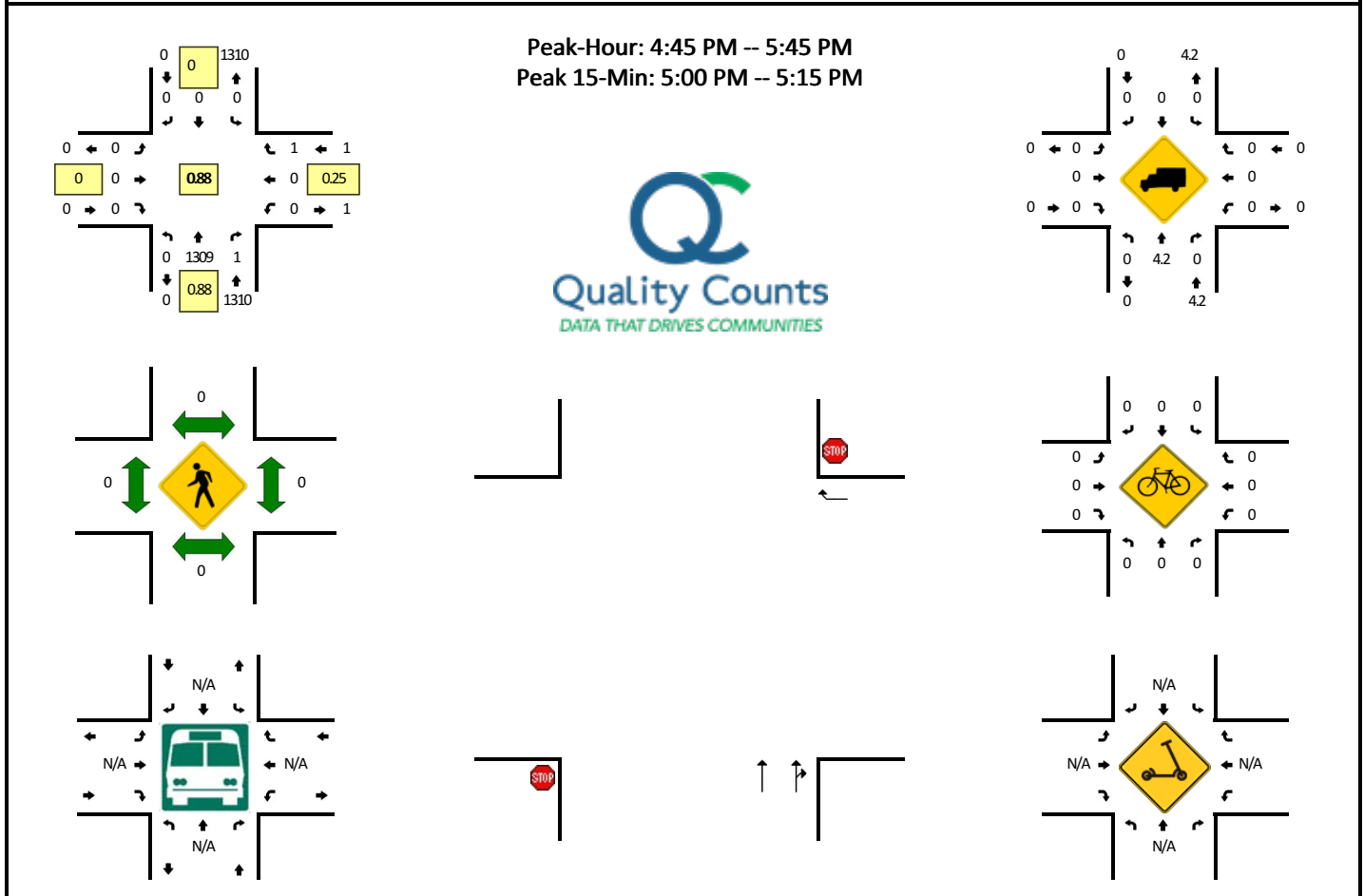
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: US 1 NB -- US 1 Northbound Service Road Access
CITY/STATE: Southern Pines, NC

QC JOB #: 15560214
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	US 1 NB (Northbound)				US 1 NB (Southbound)				US 1 Northbound Service Road Access (Eastbound)				US 1 Northbound Service Road Access (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	260	
4:15 PM	0	274	0	0	0	0	0	0	0	0	0	0	0	0	0	0	274	
4:30 PM	0	275	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	
4:45 PM	0	287	1	0	0	0	0	0	0	0	0	0	0	0	0	0	288	1097
5:00 PM	0	373	0	0	0	0	0	0	0	0	0	0	0	0	1	0	374	1211
5:15 PM	0	336	0	0	0	0	0	0	0	0	0	0	0	0	0	0	336	1273
5:30 PM	0	313	0	0	0	0	0	0	0	0	0	0	0	0	0	0	313	1311
5:45 PM	0	213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	213	1236
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	1492	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1496	
Heavy Trucks	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	
Buses																		
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters																		

Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Appendix B:

Trip Generation

US 1 Multifamily

Table 1 - Trip Generation

Land Use	Intensity	Daily			AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out	Total	In	Out
221 Multifamily Housing (Mid-Rise)	276 d.u.	2,020	1,010	1,010	93	24	69	117	71	46
710 General Office Building	7,500 s.f.	86	43	43	34	29	5	10	2	8
Total Net New External Trips		2,106	1,053	1,053	127	53	74	127	73	54

Appendix C:

Intersection Spreadsheets

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date: 9/8/2021
 N/S Street: US 1 NB Ramp
 E/W Street: Midland Road

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR
 AM PHF = 0.83

Description	Midland Road Eastbound			Midland Road Westbound			US 1 NB Ramp Northbound			US 1 NB Ramp Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	302	273	0	1	230	26	0	0	30	0	0	333
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	302	273	0	1	230	26	0	0	30	0	0	333
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	48	44	0	0	37	4	0	0	5	0	0	53
2031 Background Traffic	350	317	0	1	267	30	0	0	35	0	0	386
Project Traffic												
Percent Assignment Inbound	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	5	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	19
Total External Site Traffic	0	5	0	0	0	0	0	0	0	0	0	19
Total Project Traffic	0	5	0	0	0	0	0	0	0	0	0	19
2031 Buildout Total	350	322	0	1	267	30	0	0	35	0	0	405
Percent Impact (Approach)	0.7%			0.0%			0.0%			4.7%		

Overall Percent Impact 1.7%

PM PEAK HOUR
 PM PHF = 0.92

Description	Midland Road Eastbound			Midland Road Westbound			US 1 NB Ramp Northbound			US 1 NB Ramp Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	296	218	0	3	291	31	2	0	40	0	0	305
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	296	218	0	3	291	31	2	0	40	0	0	305
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	48	35	0	0	47	5	0	0	6	0	0	49
2031 Background Traffic	344	253	0	3	338	36	2	0	46	0	0	354
Project Traffic												
Percent Assignment Inbound	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	7	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	14
Total External Site Traffic	0	7	0	0	0	0	0	0	0	0	0	14
Total Project Traffic	0	7	0	0	0	0	0	0	0	0	0	14
2031 Buildout Total	344	260	0	3	338	36	2	0	46	0	0	368
Percent Impact (Approach)	1.2%			0.0%			0.0%			3.8%		

Overall Percent Impact 1.5%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date: 9/8/2021
 N/S Street: Crestview Road
 E/W Street: Midland Road

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.87

Description		Midland Road Eastbound			Midland Road Westbound			Crestview Road Northbound			Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	35	250	22	1	203	4	19	2	0	0	0	0
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	35	250	22	1	203	4	19	2	0	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	6	40	4	0	33	1	3	0	0	0	0	0
2031	Background Traffic	41	290	26	1	236	5	22	2	0	0	0	0
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	5	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic		0	0	5	0	0	0	0	0	0	0	0	0
Total Project Traffic		0	0	5	0	0	0	0	0	0	0	0	0
2031	Buildout Total	41	290	31	1	236	5	22	2	0	0	0	0
Percent Impact (Approach)		1.4%			0.0%			0.0%			-		

PM PEAK HOUR PM PHF = 0.90

Description		Midland Road <u>Eastbound</u>			Midland Road <u>Westbound</u>			Crestview Road <u>Northbound</u>			Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	35	194	29	1	254	5	16	3	1	0	0	0
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	35	194	29	1	254	5	16	3	1	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	6	31	5	0	41	1	3	0	0	0	0	0
2031	Background Traffic	41	225	34	1	295	6	19	3	1	0	0	0
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	7	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic		0	0	7	0	0	0	0	0	0	0	0	0
Total Project Traffic		0	0	7	0	0	0	0	0	0	0	0	0
2031	Buildout Total	41	225	41	1	295	6	19	3	1	0	0	0
Percent Impact (Approach)		2.3%			0.0%			0.0%			-		

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: **US 1 Multifamily**
 Location: **Southern Pines, NC**
 Ct. Date: **9/8/2021**
 N/S Street: **Crestview Road**
 E/W Street: **N Saylor Street**

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.90

Description	N Saylor Street Eastbound			Westbound			Crestview Road Northbound			Crestview Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	9	0	4	0	0	0	1	12	0	1	18	9
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	9	0	4	0	0	0	1	12	0	1	18	9
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	1	0	1	0	0	0	0	2	0	0	3	1
2031 Background Traffic	10	0	5	0	0	0	1	14	0	1	21	10
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	5
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	0	0	0	0	0	0	0	0	5
Total Project Traffic	0	0	0	0	0	0	0	0	0	0	0	5
2031 Buildout Total	10	0	5	0	0	0	1	14	0	1	21	15
Percent Impact (Approach)	0.0%			-			0.0%			13.5%		

Overall Percent Impact 7.5%

PM PEAK HOUR PM PHF = 0.74

Description	N Saylor Street Eastbound			Westbound			Crestview Road Northbound			Crestview Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	1	0	3	0	0	0	2	15	0	0	21	11
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	1	0	3	0	0	0	2	15	0	0	21	11
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	2	0	0	3	2
2031 Background Traffic	1	0	3	0	0	0	2	17	0	0	24	13
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	7
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	0	0	0	0	0	0	0	0	7
Total Project Traffic	0	0	0	0	0	0	0	0	0	0	0	7
2031 Buildout Total	1	0	3	0	0	0	2	17	0	0	24	20
Percent Impact (Approach)	0.0%			-			0.0%			15.9%		

Overall Percent Impact 10.4%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: **US 1 Multifamily**
 Location: **Southern Pines, NC**
 Ct. Date: **9/8/2019**
 N/S Street: **W Rhode Island Avenue**
 E/W Street: **N Saylor Street**

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.75

Description	N Saylor Street Eastbound			N Saylor Street Westbound			W Rhode Island Avenue Northbound			W Rhode Island Avenue Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	10	0	0	19	0	1	1	0	2	1	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	10	0	0	19	0	1	1	0	2	1	2
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	2	0	0	3	0	0	0	0	0	0	0
2031 Background Traffic	0	12	0	0	22	0	1	1	0	2	1	2
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	5	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	0	5	0	0	0	0	0	0	0
Total Project Traffic	0	0	0	0	5	0	0	0	0	0	0	0
2031 Buildout Total	0	12	0	0	27	0	1	1	0	2	1	2
Percent Impact (Approach)	0.0%			18.5%			0.0%			0.0%		

Overall Percent Impact 10.9%

PM PEAK HOUR PM PHF = 0.92

Description	N Saylor Street Eastbound			N Saylor Street Westbound			W Rhode Island Avenue Northbound			W Rhode Island Avenue Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	11	2	0	14	0	1	1	0	0	2	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	11	2	0	14	0	1	1	0	0	2	2
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	2	0	0	2	0	0	0	0	0	0	0
2031 Background Traffic	0	13	2	0	16	0	1	1	0	0	2	2
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	7	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	0	7	0	0	0	0	0	0	0
Total Project Traffic	0	0	0	0	7	0	0	0	0	0	0	0
2031 Buildout Total	0	13	2	0	23	0	1	1	0	0	2	2
Percent Impact (Approach)	0.0%			30.4%			0.0%			0.0%		

Overall Percent Impact 15.9%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: **US 1 Multifamily**
 Location: **Southern Pines, NC**
 Ct. Date: **9/8/2021**
 N/S Street: **W Vermont Avenue**
 E/W Street: **N Saylor Street**

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.65

Description		N Saylor Street <u>Eastbound</u>			N Saylor Street <u>Westbound</u>			W Vermont Avenue <u>Northbound</u>			W Vermont Avenue <u>Southbound</u>		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	3	12	3	3	24	0	1	1	0	0	0	0
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	3	12	3	3	24	0	1	1	0	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	0	2	0	0	4	0	0	0	0	0	0	0
2031	Background Traffic	3	14	3	3	28	0	1	1	0	0	0	0
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	5	0	0	0	0	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic		0	0	0	0	5	0	0	0	0	0	0	0
Total Project Traffic		0	0	0	0	5	0	0	0	0	0	0	0
2031	Buildout Total	3	14	3	3	33	0	1	1	0	0	0	0
Percent Impact (Approach)		0.0%			13.9%			0.0%			-		

PM PEAK HOUR PM PHF = 0.84

Description		N Saylor Street <u>Eastbound</u>			N Saylor Street <u>Westbound</u>			W Vermont Avenue <u>Northbound</u>			W Vermont Avenue <u>Southbound</u>		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	6	17	3	0	18	0	4	1	2	0	4	2
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	6	17	3	0	18	0	4	1	2	0	4	2
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	1	3	0	0	3	0	1	0	0	0	1	0
2031	Background Traffic	7	20	3	0	21	0	5	1	2	0	5	2
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	7	0	0	0	0	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic		0	0	0	0	7	0	0	0	0	0	0	0
Total Project Traffic		0	0	0	0	7	0	0	0	0	0	0	0
2031	Buildout Total	7	20	3	0	28	0	5	1	2	0	5	2
Percent Impact (Approach)		0.0%			25.0%			0.0%			0.0%		

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: **US 1 Multifamily**
 Location: **Southern Pines, NC**
 Ct. Date: **9/8/2021**
 N/S Street: **W Pennsylvania Avenue**
 E/W Street: **N Saylor Street/Private Drive**

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.91

Description		Private Drive Eastbound			N Saylor Street Westbound			W Pennsylvania Avenue Northbound			W Pennsylvania Avenue Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	8	1	2	3	0	26	0	284	4	38	407	9
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	8	1	2	3	0	26	0	284	4	38	407	9
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	1	0	0	0	0	4	0	46	1	6	65	1
2031	Background Traffic	9	1	2	3	0	30	0	330	5	44	472	10
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	10.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	0	0	0	0	16	5	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	30.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	22	0	26	0	0	0	0	0	0
Total External Site Traffic		0	0	0	22	0	26	0	0	16	5	0	0
Total Project Traffic		0	0	0	22	0	26	0	0	16	5	0	0
2031	Buildout Total	9	1	2	25	0	56	0	330	21	49	472	10
Percent Impact (Approach)		0.0%			59.3%			4.6%			0.9%		

PM PEAK HOUR PM PHF = 0.92

Description		Private Drive <u>Eastbound</u>			N Saylor Street <u>Westbound</u>			W Pennsylvania Avenue <u>Northbound</u>			W Pennsylvania Avenue <u>Southbound</u>		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	8	0	2	8	0	51	3	474	15	26	313	9
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	8	0	2	8	0	51	3	474	15	26	313	9
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	1	0	0	1	0	8	0	76	2	4	50	1
2031	Background Traffic	9	0	2	9	0	59	3	550	17	30	363	10
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	10.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	0	0	0	0	22	7	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	30.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	16	0	19	0	0	0	0	0	0
Total External Site Traffic		0	0	0	16	0	19	0	0	22	7	0	0
Total Project Traffic		0	0	0	16	0	19	0	0	22	7	0	0
2031	Buildout Total	9	0	2	25	0	78	3	550	39	37	363	10
Percent Impact (Approach)		0.0%			34.0%			3.7%			1.7%		

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date: 9/8/2021
 N/S Street: US 1 NB
 E/W Street: US 1 NB Service Road Access

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.80

Description		Eastbound			US 1 NB Service Road Access			US 1 NB			US 1 NB		
		Left	Through	Right	Westbound			Northbound			Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	0	0	0	0	0	0	0	848	0	0	0	0
Count Balancing		0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	0	0	0	0	0	0	0	848	0	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	0	0	0	0	0	0	0	136	0	0	0	0
2031	Background Traffic	0	0	0	0	0	0	0	984	0	0	0	0
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	0	0	0	0	27	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	26	0	0	0	0	0	0
Total External Site Traffic		0	0	0	0	0	26	0	0	27	0	0	0
Total Project Traffic		0	0	0	0	0	26	0	0	27	0	0	0
2031	Buildout Total	0	0	0	0	0	26	0	984	27	0	0	0
Percent Impact (Approach)		-			100.0%			2.7%			-		

PM PEAK HOUR PM PHF = 0.88

Description		0			US 1 NB Service Road Access			US 1 NB			US 1 NB		
		Eastbound			Westbound			Northbound			Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	0	0	0	0	0	1	0	1309	1	0	0	0
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	0	0	0	0	0	1	0	1309	1	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	0	0	0	0	0	0	0	210	0	0	0	0
2031	Background Traffic	0	0	0	0	0	1	0	1519	1	0	0	0
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	0	0	0	0	37	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	19	0	0	0	0	0	0
Total External Site Traffic		0	0	0	0	0	19	0	0	37	0	0	0
Total Project Traffic		0	0	0	0	0	19	0	0	37	0	0	0
2031	Buildout Total	0	0	0	0	0	20	0	1519	38	0	0	0
Percent Impact (Approach)		-			95.0%			2.4%			-		

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date:
 N/S Street: US 1 NB Service Road
 E/W Street: Site Driveway #1

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR

AM PHF =

Description	Eastbound			Site Driveway #1 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	20.00%	5.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	16	10	3	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	20.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	45.00%	0.00%
Outbound Project Traffic	0	0	0	15	0	4	0	0	0	0	33	0
Total External Site Traffic	0	0	0	15	0	4	0	16	10	3	33	0
Total Project Traffic	0	0	0	15	0	4	0	16	10	3	33	0
2031 Buildout Total	0	0	0	15	0	4	0	16	10	3	33	0
Percent Impact (Approach)	-			100.0%			100.0%			100.0%		

Overall Percent Impact 100.0%

PM PEAK HOUR

PM PHF =

Description	Eastbound			Site Driveway #1 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	20.00%	5.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	22	14	4	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	20.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	45.00%	0.00%
Outbound Project Traffic	0	0	0	10	0	3	0	0	0	0	24	0
Total External Site Traffic	0	0	0	10	0	3	0	22	14	4	24	0
Total Project Traffic	0	0	0	10	0	3	0	22	14	4	24	0
2031 Buildout Total	0	0	0	10	0	3	0	22	14	4	24	0
Percent Impact (Approach)	-			100.0%			100.0%			100.0%		

Overall Percent Impact 100.0%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date:
 N/S Street: US 1 NB Service Road
 E/W Street: Site Driveway #2

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR

AM PHF =

Description	Eastbound			Site Driveway #2 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	20.00%	35.00%	5.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	5	11	19	3	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	35.00%	0.00%	20.00%	0.00%	5.00%	0.00%	0.00%	10.00%	0.00%
Outbound Project Traffic	0	0	0	26	0	15	0	4	0	0	7	0
Total External Site Traffic	0	0	0	26	0	15	0	9	11	19	10	0
Total Project Traffic	0	0	0	26	0	15	0	9	11	19	10	0
2031 Buildout Total	0	0	0	26	0	15	0	9	11	19	10	0
Percent Impact (Approach)	-			100.0%			100.0%			100.0%		

Overall Percent Impact 100.0%

PM PEAK HOUR

PM PHF =

Description	Eastbound			Site Driveway #2 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	20.00%	35.00%	5.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	7	15	26	4	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	35.00%	0.00%	20.00%	0.00%	5.00%	0.00%	0.00%	10.00%	0.00%
Outbound Project Traffic	0	0	0	19	0	11	0	3	0	0	5	0
Total External Site Traffic	0	0	0	19	0	11	0	10	15	26	9	0
Total Project Traffic	0	0	0	19	0	11	0	10	15	26	9	0
2031 Buildout Total	0	0	0	19	0	11	0	10	15	26	9	0
Percent Impact (Approach)	-			100.0%			100.0%			100.0%		

Overall Percent Impact 100.0%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date:
 N/S Street: US 1 NB Service Road
 E/W Street: US 1 NB Service Road Access

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF =

Description		US 1 NB Service Road Access			Westbound			US 1 NB Service Road			US 1 NB Service Road		
		Eastbound						Northbound			Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing		0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031	Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic													
Percent Assignment Inbound		10.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		5	0	21	0	0	0	0	5	0	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	10.00%	10.00%
Outbound Project Traffic		0	0	0	0	0	0	19	0	0	0	7	7
Total External Site Traffic		5	0	21	0	0	0	19	5	0	0	7	7
Total Project Traffic		5	0	21	0	0	0	19	5	0	0	7	7
2031	Buildout Total	5	0	21	0	0	0	19	5	0	0	7	7
Percent Impact (Approach)		100.0%			-			100.0%			100.0%		

PM PEAK HOUR PM PHF =

Description		US 1 NB Service Road Access			US 1 NB Service Road			US 1 NB Service Road		
		Eastbound						Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	0	0	0	0	0	0	0	0	0
	Count Balancing	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	0	0	0	0	0	0	0	0	0
2031	Background Traffic	0	0	0	0	0	0	0	0	0
Project Traffic										
Percent Assignment Inbound		10.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%
Inbound Project Traffic		7	0	29	0	0	0	0	7	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	0	14	0	0
Total External Site Traffic		7	0	29	0	0	0	14	7	0
Total Project Traffic		7	0	29	0	0	0	14	7	0
2031	Buildout Total	7	0	29	0	0	0	14	7	0
Percent Impact (Approach)		100.0%			-			100.0%		
Overall Percent Impact		100.0%								

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date:
 N/S Street: US 1 NB Service Road
 E/W Street: Site Driveway #3

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR

AM PHF =

Description	Eastbound			Site Driveway #3 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	10	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	14	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	14	0	0	0	0	10	0	0	0
Total Project Traffic	0	0	0	14	0	0	0	0	10	0	0	0
2031 Buildout Total	0	0	0	14	0	0	0	0	10	0	0	0
Percent Impact (Approach)	-	-	-	100.0%	-	-	100.0%	-	-	-	-	-

Overall Percent Impact 100.0%

PM PEAK HOUR

PM PHF =

Description	Eastbound			Site Driveway #3 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	14	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	11	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	11	0	0	0	0	14	0	0	0
Total Project Traffic	0	0	0	11	0	0	0	0	14	0	0	0
2031 Buildout Total	0	0	0	11	0	0	0	0	14	0	0	0
Percent Impact (Approach)	-	-	-	100.0%	-	-	100.0%	-	-	-	-	-

Overall Percent Impact 100.0%

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10/14/21

Appendix D:
Synchro Output:
Existing (2021)

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Existing AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	30	0	4	0	0	0	0	0	273	4
Future Volume (vph)	0	0	30	0	4	0	0	0	0	0	273	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)			2									1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	36	0	5	0	0	0	0	0	334	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↗						↗	
Traffic Vol, veh/h	0	0	30	0	4	0	0	0	0	0	273	4
Future Vol, veh/h	0	0	30	0	4	0	0	0	0	0	273	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	36	0	5	0	0	0	0	0	329	5

Major/Minor	Minor2			Minor1			Major2		
Conflicting Flow All	-	-	332	-	334	-	-	-	0
Stage 1	-	-	-	-	0	-	-	-	-
Stage 2	-	-	-	-	334	-	-	-	-
Critical Hdwy	-	-	6.27	-	6.52	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-	-	-	-
Follow-up Hdwy	-	-	3.363	-	4.018	-	-	-	-
Pot Cap-1 Maneuver	0	0	698	0	586	0	0	-	-
Stage 1	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	643	0	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	698	-	586	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	586	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	643	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	10.4	11.2	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	698	586	-	-
HCM Lane V/C Ratio	0.052	0.008	-	-
HCM Control Delay (s)	10.4	11.2	-	-
HCM Lane LOS	B	B	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Existing AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	302	0	0	0	333	0	230	26	0	0	0
Future Volume (vph)	0	302	0	0	0	333	0	230	26	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	364	0	0	0	401	0	308	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 57.4%	ICU Level of Service B											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	12.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	302	0	0	0	333	0	230	26	0	0	0
Future Vol, veh/h	0	302	0	0	0	333	0	230	26	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	364	0	0	0	401	0	277	31	0	0	0
Major/Minor	Minor2			Minor1			Major1					
Conflicting Flow All	-	308	-	-	-	293	-	0	0	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-	-	-	-
Stage 2	-	308	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	6.52	-	-	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	4.018	-	-	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	606	0	0	0	746	0	-	-	-	-	-
Stage 1	0	-	0	0	0	-	0	-	-	-	-	-
Stage 2	0	660	0	0	0	-	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	606	-	-	-	746	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	606	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	660	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB					
HCM Control Delay, s	19.5			15.3			0					
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBT		NBR		EBLn1		WBLn1					
Capacity (veh/h)	-		-		606		746					
HCM Lane V/C Ratio	-		-		0.6		0.538					
HCM Control Delay (s)	-		-		19.5		15.3					
HCM Lane LOS	-		-		C		C					
HCM 95th %tile Q(veh)	-		-		4		3.2					

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	19	4	4	203	250	22
Future Volume (vph)	19	4	4	203	250	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1618	0	0	3468	3497	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1618	0	0	3468	3497	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	10%	10%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	0	238	312	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 18.8%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	4	4	203	250	22
Future Vol, veh/h	19	4	4	203	250	22
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	10	4	4	2	2
Mvmt Flow	22	5	5	233	287	25
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	428	158	313	0	-	0
Stage 1	301	-	-	-	-	-
Stage 2	127	-	-	-	-	-
Critical Hdwy	7	7.1	4.18	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.24	-	-	-
Pot Cap-1 Maneuver	535	835	1230	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	531	833	1229	-	-	-
Mov Cap-2 Maneuver	531	-	-	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.7	0.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1229	-	567	-	-	
HCM Lane V/C Ratio	0.004	-	0.047	-	-	
HCM Control Delay (s)	7.9	0	11.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	18	9	4	12	9	4
Future Volume (vph)	18	9	4	12	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1635	0	0	1840	1534	0
Flt Permitted				0.988	0.966	
Satd. Flow (perm)	1635	0	0	1840	1534	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1282	1990	
Travel Time (s)	25.7			35.0	54.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	2%	2%	15%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	17	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 14.1%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	18	9	4	12	9	4
Future Vol, veh/h	18	9	4	12	9	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	11	11	2	2	15	15
Mvmt Flow	20	10	4	13	10	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	30	0	46	25
Stage 1	-	-	-	-	25	-
Stage 2	-	-	-	-	21	-
Critical Hdwy	-	-	4.12	-	6.55	6.35
Critical Hdwy Stg 1	-	-	-	-	5.55	-
Critical Hdwy Stg 2	-	-	-	-	5.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.435
Pot Cap-1 Maneuver	-	-	1583	-	932	1015
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	969	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1583	-	929	1015
Mov Cap-2 Maneuver	-	-	-	-	929	-
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	966	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		8.8	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	954		-	-	1583	-
HCM Lane V/C Ratio	0.015		-	-	0.003	-
HCM Control Delay (s)	8.8		-	-	7.3	0
HCM Lane LOS	A		-	-	A	A
HCM 95th %tile Q(veh)	0		-	-	0	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	10	4	4	19	4
Future Volume (vph)	4	4	4	4	4	4	4	10	4	4	19	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1659	0	0	1763	0
Flt Permitted		0.984			0.984			0.989			0.993	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1659	0	0	1763	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	10%	10%	10%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	15	0	0	23	0	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 13.3%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	4	4	4	4	4	4	10	4	4	19	4
Future Vol, veh/h	4	4	4	4	4	4	4	10	4	4	19	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	50	50	50	10	10	10	5	5	5
Mvmt Flow	5	5	5	5	5	5	5	13	5	5	25	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	69	66	28	69	66	16	30	0	0	18	0	0
Stage 1	38	38	-	26	26	-	-	-	-	-	-	-
Stage 2	31	28	-	43	40	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.2	-	-	4.15	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.29	-	-	2.245	-	-
Pot Cap-1 Maneuver	923	825	1047	818	741	940	1533	-	-	1579	-	-
Stage 1	977	863	-	881	787	-	-	-	-	-	-	-
Stage 2	986	872	-	862	776	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	908	820	1047	806	737	940	1533	-	-	1579	-	-
Mov Cap-2 Maneuver	908	820	-	806	737	-	-	-	-	-	-	-
Stage 1	974	860	-	878	785	-	-	-	-	-	-	-
Stage 2	971	869	-	850	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	9.5	1.6	1.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1533	-	-	916	819	1579	-	-
HCM Lane V/C Ratio	0.003	-	-	0.017	0.02	0.003	-	-
HCM Control Delay (s)	7.4	0	-	9	9.5	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	12	4	4	24	4
Future Volume (vph)	4	4	4	4	4	4	4	12	4	4	24	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1727	0	0	1785	0
Flt Permitted		0.984			0.984			0.990			0.994	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1727	0	0	1785	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)				1		1			1	1		
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	6%	6%	6%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	18	0	0	30	0	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	12	4	4	24	4
Future Vol, veh/h	4	4	4	4	4	4	4	12	4	4	24	4
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	50	50	50	6	6	6	4	4	4
Mvmt Flow	6	6	6	6	6	6	6	18	6	6	37	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	92	89	41	93	89	23	43	0	0	25	0	0
Stage 1	52	52	-	34	34	-	-	-	-	-	-	-
Stage 2	40	37	-	59	55	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	892	801	1030	788	719	931	1540	-	-	1577	-	-
Stage 1	961	852	-	872	781	-	-	-	-	-	-	-
Stage 2	975	864	-	845	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	874	794	1029	772	713	929	1540	-	-	1575	-	-
Mov Cap-2 Maneuver	874	794	-	772	713	-	-	-	-	-	-	-
Stage 1	957	849	-	868	777	-	-	-	-	-	-	-
Stage 2	956	860	-	830	761	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.1		9.6			1.5			0.9			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1540	-	-	889	795	1575	-	-				
HCM Lane V/C Ratio	0.004	-	-	0.021	0.023	0.004	-	-				
HCM Control Delay (s)	7.3	0	-	9.1	9.6	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

US 1 Multifamily
7: Shopping Center Dwy/N Saylor Street & W Pennsylvania Ave

Existing AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	407	9	4	284	4	8	4	4	4	4	26
Future Volume (vph)	38	407	9	4	284	4	8	4	4	4	4	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1857	0	1770	1859	0	0	1756	0	0	1657	0
Flt Permitted	0.950			0.950				0.974			0.995	
Satd. Flow (perm)	1770	1857	0	1770	1859	0	0	1756	0	0	1657	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	457	0	4	316	0	0	17	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 38.6%

ICU Level of Service A

Analysis Period (min) 15

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	407	9	4	284	4	8	4	4	4	4	26
Future Vol, veh/h	38	407	9	4	284	4	8	4	4	4	4	26
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	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	447	10	4	312	4	9	4	4	4	4	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	316	0	0	457	0	0	875	860	452	862	863	314
Stage 1	-	-	-	-	-	-	536	536	-	322	322	-
Stage 2	-	-	-	-	-	-	339	324	-	540	541	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1244	-	-	1104	-	-	270	294	608	275	292	726
Stage 1	-	-	-	-	-	-	529	523	-	690	651	-
Stage 2	-	-	-	-	-	-	676	650	-	526	521	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1244	-	-	1104	-	-	249	283	608	262	281	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	249	283	-	262	281	-
Stage 1	-	-	-	-	-	-	511	505	-	667	648	-
Stage 2	-	-	-	-	-	-	643	647	-	500	503	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	17.6	12.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	303	1244	-	-	1104	-	-	521
HCM Lane V/C Ratio	0.058	0.034	-	-	0.004	-	-	0.072
HCM Control Delay (s)	17.6	8	-	-	8.3	-	-	12.4
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.2

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Existing AM
09/16/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	848	4	0	0
Future Volume (vph)	0	4	848	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1611	3370	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3370	0	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	2%	2%	7%	7%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1065	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 33.6%	ICU Level of Service A					
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	848	4	0	0
Future Vol, veh/h	0	4	848	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	0	5	1060	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	533	0	0		
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	491	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %	-	-	-	-		
Mov Cap-1 Maneuver	-	491	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	12.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBR	WBLn1		
Capacity (veh/h)	-		-	491		
HCM Lane V/C Ratio	-		-	0.01		
HCM Control Delay (s)	-		-	12.4		
HCM Lane LOS	-		-	B		
HCM 95th %tile Q(veh)	-		-	0		

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Existing PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	40	0	4	0	0	0	0	0	218	4
Future Volume (vph)	0	0	40	0	4	0	0	0	0	0	218	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	4	0	0	0	0	0	241	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	21.7%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↗						↗	
Traffic Vol, veh/h	0	0	40	0	4	0	0	0	0	0	218	4
Future Vol, veh/h	0	0	40	0	4	0	0	0	0	0	218	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	43	0	4	0	0	0	0	0	237	4

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	-	239	-	241	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	241	-
Critical Hdwy	-	-	6.22	-	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	3.318	-	4.018	-
Pot Cap-1 Maneuver	0	0	800	0	660	0
Stage 1	0	0	-	0	-	0
Stage 2	0	0	-	0	706	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	800	-	660	-
Mov Cap-2 Maneuver	-	-	-	-	660	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	706	-

Approach	EB	WB	SB
HCM Control Delay, s	9.8	10.5	0
HCM LOS	A	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	800	660	-	-
HCM Lane V/C Ratio	0.054	0.007	-	-
HCM Control Delay (s)	9.8	10.5	-	-
HCM Lane LOS	A	B	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Existing PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	296	0	0	0	305	0	291	31	0	0	0
Future Volume (vph)	0	296	0	0	0	305	0	291	31	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	322	0	0	0	332	0	350	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	58.8%											
Analysis Period (min)	15											
ICU Level of Service B												

Intersection												
Int Delay, s/veh	10.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	296	0	0	0	305	0	291	31	0	0	0
Future Vol, veh/h	0	296	0	0	0	305	0	291	31	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	322	0	0	0	332	0	316	34	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	-	350	-	-	-	333	-	0	0	
Stage 1	-	0	-	-	-	-	-	-	-	
Stage 2	-	350	-	-	-	-	-	-	-	
Critical Hdwy	-	6.52	-	-	-	6.22	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	-	4.018	-	-	-	3.318	-	-	-	
Pot Cap-1 Maneuver	0	574	0	0	0	709	0	-	-	
Stage 1	0	-	0	0	0	-	0	-	-	
Stage 2	0	633	0	0	0	-	0	-	-	
Platoon blocked, %	-	-	-	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	574	-	-	-	709	-	-	-	
Mov Cap-2 Maneuver	-	574	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	
Stage 2	-	633	-	-	-	-	-	-	-	

Approach	EB	WB	NB
HCM Control Delay, s	19	14.5	0
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	574	709
HCM Lane V/C Ratio	-	-	0.561	0.468
HCM Control Delay (s)	-	-	19	14.5
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	3.4	2.5

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	4	4	254	194	29
Future Volume (vph)	16	4	4	254	194	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1618	0	0	3536	3472	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1618	0	0	3536	3472	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)	2	2	2			2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	286	248	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 20.5%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	4	4	254	194	29
Future Vol, veh/h	16	4	4	254	194	29
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	2	2	2	2
Mvmt Flow	18	4	4	282	216	32
Major/Minor						
Minor2	Major1		Major2			
Conflicting Flow All	385	128	250	0	-	0
Stage 1	234	-	-	-	-	-
Stage 2	151	-	-	-	-	-
Critical Hdwy	7	7.1	4.14	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.22	-	-	-
Pot Cap-1 Maneuver	570	873	1313	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	565	870	1310	-	-	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Approach						
EB	NB		SB			
HCM Control Delay, s	11.1	0.1	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1310	-	608	-	-	
HCM Lane V/C Ratio	0.003	-	0.037	-	-	
HCM Control Delay (s)	7.8	0	11.1	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	21	11	4	15	4	4
Future Volume (vph)	21	11	4	15	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1758	0	0	1775	1694	0
Flt Permitted				0.990	0.976	
Satd. Flow (perm)	1758	0	0	1775	1694	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1308	1990	
Travel Time (s)	25.7			35.7	54.3	
Confl. Peds. (#/hr)			1			1
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	3%	3%	6%	6%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	25	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 14.6%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	11	4	15	4	4
Future Vol, veh/h	21	11	4	15	4	4
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	6	6	2	2
Mvmt Flow	28	15	5	20	5	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	44	0	67	38
Stage 1	-	-	-	-	37	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1539	-	938	1034
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	993	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1538	-	934	1032
Mov Cap-2 Maneuver	-	-	-	-	934	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	990	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.5		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	981		-	-	1538	-
HCM Lane V/C Ratio	0.011		-	-	0.004	-
HCM Control Delay (s)	8.7		-	-	7.3	0
HCM Lane LOS	A		-	-	A	A
HCM 95th %tile Q(veh)	0		-	-	0	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	11	4	4	14	4
Future Volume (vph)	4	4	4	4	4	4	4	11	4	4	14	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1750	0	0	1794	0	0	1804	0
Flt Permitted		0.984			0.984			0.990			0.991	
Satd. Flow (perm)	0	1750	0	0	1750	0	0	1794	0	0	1804	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	12	0	0	20	0	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	4	4	4	4	4	4	11	4	4	14	4
Future Vol, veh/h	4	4	4	4	4	4	4	11	4	4	14	4
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	4	4	4	4	12	4	4	15	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	53	51	19	53	51	16	20	0	0	17	0	0
Stage 1	26	26	-	23	23	-	-	-	-	-	-	-
Stage 2	27	25	-	30	28	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	946	840	1059	946	840	1063	1596	-	-	1600	-	-
Stage 1	992	874	-	995	876	-	-	-	-	-	-	-
Stage 2	990	874	-	987	872	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	933	833	1057	933	833	1061	1594	-	-	1598	-	-
Mov Cap-2 Maneuver	933	833	-	933	833	-	-	-	-	-	-	-
Stage 1	988	871	-	991	872	-	-	-	-	-	-	-
Stage 2	977	871	-	974	869	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	8.9	1.5	1.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1594	-	-	932	933	1598	-	-
HCM Lane V/C Ratio	0.003	-	-	0.014	0.014	0.003	-	-
HCM Control Delay (s)	7.3	0	-	8.9	8.9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	6	17	4	4	18	4
Future Volume (vph)	4	4	4	4	4	4	6	17	4	4	18	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1750	0	0	1804	0	0	1807	0
Flt Permitted		0.984			0.984			0.989			0.992	
Satd. Flow (perm)	0	1750	0	0	1750	0	0	1804	0	0	1807	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	15	0	0	32	0	0	31	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	6	17	4	4	18	4
Future Vol, veh/h	4	4	4	4	4	4	6	17	4	4	18	4
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	5	5	5	5	7	20	5	5	21	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	78	74	26	77	74	24	27	0	0	25	0	0
Stage 1	35	35	-	37	37	-	-	-	-	-	-	-
Stage 2	43	39	-	40	37	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	911	816	1050	912	816	1052	1587	-	-	1589	-	-
Stage 1	981	866	-	978	864	-	-	-	-	-	-	-
Stage 2	971	862	-	975	864	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	896	809	1048	898	809	1051	1585	-	-	1589	-	-
Mov Cap-2 Maneuver	896	809	-	898	809	-	-	-	-	-	-	-
Stage 1	976	863	-	974	861	-	-	-	-	-	-	-
Stage 2	956	859	-	961	861	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9		9			1.6			1.1			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1585	-	-	907	909	1589	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.016	0.016	0.003	-	-				
HCM Control Delay (s)	7.3	0	-	9	9	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

US 1 Multifamily
7: Shopping Center Dwy/N Saylor Street & W Pennsylvania Ave

Existing PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	313	9	4	474	15	8	4	4	8	4	51
Future Volume (vph)	26	313	9	4	474	15	8	4	4	8	4	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1855	0	1770	1853	0	0	1756	0	0	1648	0
Flt Permitted	0.950			0.950				0.974			0.993	
Satd. Flow (perm)	1770	1855	0	1770	1853	0	0	1756	0	0	1648	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Confl. Peds. (#/hr)	3					3				3		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	350	0	4	531	0	0	17	0	0	68	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	37.5%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	313	9	4	474	15	8	4	4	8	4	51
Future Vol, veh/h	26	313	9	4	474	15	8	4	4	8	4	51
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	340	10	4	515	16	9	4	4	9	4	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	534	0	0	350	0	0	965	943	348	942	940	529
Stage 1	-	-	-	-	-	-	401	401	-	534	534	-
Stage 2	-	-	-	-	-	-	564	542	-	408	406	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1034	-	-	1209	-	-	234	263	695	243	264	550
Stage 1	-	-	-	-	-	-	626	601	-	530	524	-
Stage 2	-	-	-	-	-	-	510	520	-	620	598	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1031	-	-	1209	-	-	202	254	693	232	255	547
Mov Cap-2 Maneuver	-	-	-	-	-	-	202	254	-	232	255	-
Stage 1	-	-	-	-	-	-	609	585	-	514	521	-
Stage 2	-	-	-	-	-	-	452	517	-	593	582	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	19.7	14.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	262	1031	-	-	1209	-	-	439
HCM Lane V/C Ratio	0.066	0.027	-	-	0.004	-	-	0.156
HCM Control Delay (s)	19.7	8.6	-	-	8	-	-	14.7
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.5

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Existing PM
09/16/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	1309	4	0	0
Future Volume (vph)	0	4	1309	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1611	3468	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3468	0	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1493	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 46.3%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	1309	4	0	0
Future Vol, veh/h	0	4	1309	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	0	5	1488	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	747	0	0		
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	355	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %	-	-	-	-		
Mov Cap-1 Maneuver	-	355	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	15.3		0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBR	WBLn1		
Capacity (veh/h)	-		-	355		
HCM Lane V/C Ratio	-		-	0.013		
HCM Control Delay (s)	-		-	15.3		
HCM Lane LOS	-		-	C		
HCM 95th %tile Q(veh)	-		-	0		

Appendix E:
Synchro Output:
Background (2031)

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Background AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	35	0	4	0	0	0	0	0	317	4
Future Volume (vph)	0	0	35	0	4	0	0	0	0	0	317	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)			2									1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	42	0	5	0	0	0	0	0	387	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 26.9%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↗						↗	
Traffic Vol, veh/h	0	0	35	0	4	0	0	0	0	0	317	4
Future Vol, veh/h	0	0	35	0	4	0	0	0	0	0	317	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	42	0	5	0	0	0	0	0	382	5

Major/Minor	Minor2			Minor1			Major2		
Conflicting Flow All	-	-	385	-	387	-	-	-	0
Stage 1	-	-	-	-	0	-	-	-	-
Stage 2	-	-	-	-	387	-	-	-	-
Critical Hdwy	-	-	6.27	-	6.52	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-	-	-	-
Follow-up Hdwy	-	-	3.363	-	4.018	-	-	-	-
Pot Cap-1 Maneuver	0	0	652	0	547	0	0	-	-
Stage 1	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	610	0	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	652	-	547	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	547	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	610	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	10.9	11.6	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	652	547	-	-
HCM Lane V/C Ratio	0.065	0.009	-	-
HCM Control Delay (s)	10.9	11.6	-	-
HCM Lane LOS	B	B	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Background AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	350	0	0	0	386	0	267	30	0	0	0
Future Volume (vph)	0	350	0	0	0	386	0	267	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	422	0	0	0	465	0	358	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 65.5%	ICU Level of Service C											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	16.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	350	0	0	0	386	0	267	30	0	0	0
Future Vol, veh/h	0	350	0	0	0	386	0	267	30	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	422	0	0	0	465	0	322	36	0	0	0

Major/Minor	Minor2		Minor1		Major1	
Conflicting Flow All	-	358	-	-	-	340
Stage 1	-	0	-	-	-	-
Stage 2	-	358	-	-	-	-
Critical Hdwy	-	6.52	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.52	-	-	-	-
Follow-up Hdwy	-	4.018	-	-	-	3.318
Pot Cap-1 Maneuver	0	568	0	0	0	702
Stage 1	0	-	0	0	0	-
Stage 2	0	628	0	0	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	568	-	-	-	702
Mov Cap-2 Maneuver	-	568	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	628	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	27.4	19.6	0
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	568	702
HCM Lane V/C Ratio	-	-	0.742	0.662
HCM Control Delay (s)	-	-	27.4	19.6
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q(veh)	-	-	6.4	5

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	4	4	236	290	26
Future Volume (vph)	22	4	4	236	290	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1620	0	0	3468	3497	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1620	0	0	3468	3497	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	10%	10%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	276	363	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.7%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	4	4	236	290	26
Future Vol, veh/h	22	4	4	236	290	26
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	10	4	4	2	2
Mvmt Flow	25	5	5	271	333	30

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	495	184	364	0	-	0
Stage 1	349	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	7	7.1	4.18	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.24	-	-	-
Pot Cap-1 Maneuver	484	802	1177	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	481	800	1176	-	-	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	842	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1176	-	512	-	-
HCM Lane V/C Ratio	0.004	-	0.058	-	-
HCM Control Delay (s)	8.1	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	21	10	4	14	10	5
Future Volume (vph)	21	10	4	14	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1636	0	0	1844	1524	0
Flt Permitted				0.990	0.969	
Satd. Flow (perm)	1636	0	0	1844	1524	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1175	1990	
Travel Time (s)	25.7			32.0	54.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	2%	2%	15%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	0	20	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 14.2%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↱	
Traffic Vol, veh/h	21	10	4	14	10	5
Future Vol, veh/h	21	10	4	14	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	11	11	2	2	15	15
Mvmt Flow	23	11	4	16	11	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	34	0	53	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.55	6.35
Critical Hdwy Stg 1	-	-	-	-	5.55	-
Critical Hdwy Stg 2	-	-	-	-	5.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.435
Pot Cap-1 Maneuver	-	-	1578	-	924	1010
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1578	-	921	1010
Mov Cap-2 Maneuver	-	-	-	-	921	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	963	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.6		8.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	949	-	-	1578	-	
HCM Lane V/C Ratio	0.018	-	-	0.003	-	
HCM Control Delay (s)	8.9	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	12	4	4	22	4
Future Volume (vph)	4	4	4	4	4	4	4	12	4	4	22	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1666	0	0	1768	0
Flt Permitted		0.984			0.984			0.990			0.994	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1666	0	0	1768	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	10%	10%	10%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	15	0	0	26	0	0	39	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 13.3%				ICU Level of Service A								
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	12	4	4	22	4
Future Vol, veh/h	4	4	4	4	4	4	4	12	4	4	22	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	50	50	50	10	10	10	5	5	5
Mvmt Flow	5	5	5	5	5	5	5	16	5	5	29	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	76	73	32	76	73	19	34	0	0	21	0	0
Stage 1	42	42	-	29	29	-	-	-	-	-	-	-
Stage 2	34	31	-	47	44	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.2	-	-	4.15	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.29	-	-	2.245	-	-
Pot Cap-1 Maneuver	914	817	1042	809	734	936	1527	-	-	1575	-	-
Stage 1	972	860	-	878	785	-	-	-	-	-	-	-
Stage 2	982	869	-	858	772	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	899	812	1042	797	730	936	1527	-	-	1575	-	-
Mov Cap-2 Maneuver	899	812	-	797	730	-	-	-	-	-	-	-
Stage 1	969	857	-	875	783	-	-	-	-	-	-	-
Stage 2	967	866	-	846	770	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9		9.5			1.5			1			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1527	-	-	908	812	1575	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.018	0.02	0.003	-	-				
HCM Control Delay (s)	7.4	0	-	9	9.5	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	14	4	4	28	4
Future Volume (vph)	4	4	4	4	4	4	4	14	4	4	28	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1734	0	0	1791	0
Flt Permitted		0.984			0.984			0.991			0.995	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1734	0	0	1791	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)				1		1			1	1		
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	6%	6%	6%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	18	0	0	34	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	14	4	4	28	4
Future Vol, veh/h	4	4	4	4	4	4	4	14	4	4	28	4
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	50	50	50	6	6	6	4	4	4
Mvmt Flow	6	6	6	6	6	6	6	22	6	6	43	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	102	99	47	103	99	27	49	0	0	29	0	0
Stage 1	58	58	-	38	38	-	-	-	-	-	-	-
Stage 2	44	41	-	65	61	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	879	791	1022	775	709	926	1533	-	-	1571	-	-
Stage 1	954	847	-	868	777	-	-	-	-	-	-	-
Stage 2	970	861	-	838	759	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	861	784	1021	760	703	924	1533	-	-	1570	-	-
Mov Cap-2 Maneuver	861	784	-	760	703	-	-	-	-	-	-	-
Stage 1	950	844	-	864	773	-	-	-	-	-	-	-
Stage 2	951	857	-	823	756	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.2		9.7			1.3			0.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1533	-	-	878	785	1570	-	-				
HCM Lane V/C Ratio	0.004	-	-	0.021	0.024	0.004	-	-				
HCM Control Delay (s)	7.4	0	-	9.2	9.7	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

US 1 Multifamily
7: Shopping Center Dwy/N Saylor Street & W Pennsylvania Ave

Background AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	472	10	4	330	5	9	4	4	4	4	30
Future Volume (vph)	44	472	10	4	330	5	9	4	4	4	4	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1857	0	1770	1859	0	0	1758	0	0	1651	0
Flt Permitted	0.950			0.950				0.973			0.995	
Satd. Flow (perm)	1770	1857	0	1770	1859	0	0	1758	0	0	1651	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	530	0	4	368	0	0	18	0	0	41	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 42.1%

ICU Level of Service A

Analysis Period (min) 15

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	472	10	4	330	5	9	4	4	4	4	30
Future Vol, veh/h	44	472	10	4	330	5	9	4	4	4	4	30
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	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	519	11	4	363	5	10	4	4	4	4	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	368	0	0	530	0	0	1013	997	525	999	1000	366
Stage 1	-	-	-	-	-	-	621	621	-	374	374	-
Stage 2	-	-	-	-	-	-	392	376	-	625	626	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1191	-	-	1037	-	-	217	244	552	222	243	679
Stage 1	-	-	-	-	-	-	475	479	-	647	618	-
Stage 2	-	-	-	-	-	-	633	616	-	473	477	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1191	-	-	1037	-	-	197	233	552	210	232	679
Mov Cap-2 Maneuver	-	-	-	-	-	-	197	233	-	210	232	-
Stage 1	-	-	-	-	-	-	456	460	-	621	616	-
Stage 2	-	-	-	-	-	-	596	614	-	446	458	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	21	13.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	243	1191	-	-	1037	-	-	472
HCM Lane V/C Ratio	0.077	0.041	-	-	0.004	-	-	0.088
HCM Control Delay (s)	21	8.2	-	-	8.5	-	-	13.4
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.3

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	984	4	0	0
Future Volume (vph)	0	4	984	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1611	3370	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3370	0	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	2%	2%	7%	7%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1235	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 37.3%	ICU Level of Service A					
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	984	4	0	0
Future Vol, veh/h	0	4	984	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	0	5	1230	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	618	0	0		
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	432	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %	-	-	-	-		
Mov Cap-1 Maneuver	-	432	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	13.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBR	WBLn1		
Capacity (veh/h)	-		-	432		
HCM Lane V/C Ratio	-		-	0.012		
HCM Control Delay (s)	-		-	13.4		
HCM Lane LOS	-		-	B		
HCM 95th %tile Q(veh)	-		-	0		

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Background PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	46	0	4	0	0	0	0	0	253	4
Future Volume (vph)	0	0	46	0	4	0	0	0	0	0	253	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	50	0	4	0	0	0	0	0	279	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.6%					ICU Level of Service A						
Analysis Period (min)	15											

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↗						↗	
Traffic Vol, veh/h	0	0	46	0	4	0	0	0	0	0	253	4
Future Vol, veh/h	0	0	46	0	4	0	0	0	0	0	253	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	50	0	4	0	0	0	0	0	275	4

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	-	277	-	279	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	279	-
Critical Hdwy	-	-	6.22	-	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	3.318	-	4.018	-
Pot Cap-1 Maneuver	0	0	762	0	629	0
Stage 1	0	0	-	0	-	0
Stage 2	0	0	-	0	680	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	762	-	629	-
Mov Cap-2 Maneuver	-	-	-	-	629	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	680	-

Approach	EB	WB	SB
HCM Control Delay, s	10.1	10.8	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	762	629	-	-
HCM Lane V/C Ratio	0.066	0.007	-	-
HCM Control Delay (s)	10.1	10.8	-	-
HCM Lane LOS	B	B	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Background PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	344	0	0	0	354	0	338	36	0	0	0
Future Volume (vph)	0	344	0	0	0	354	0	338	36	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	374	0	0	0	385	0	406	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 67.3%												
ICU Level of Service C												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	14.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	344	0	0	0	354	0	338	36	0	0	0
Future Vol, veh/h	0	344	0	0	0	354	0	338	36	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	374	0	0	0	385	0	367	39	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	-	406	-	-	-	387	-	0	0	
Stage 1	-	0	-	-	-	-	-	-	-	
Stage 2	-	406	-	-	-	-	-	-	-	
Critical Hdwy	-	6.52	-	-	-	6.22	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	-	4.018	-	-	-	3.318	-	-	-	
Pot Cap-1 Maneuver	0	534	0	0	0	661	0	-	-	
Stage 1	0	-	0	0	0	-	0	-	-	
Stage 2	0	598	0	0	0	-	0	-	-	
Platoon blocked, %	-	-	-	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	534	-	-	-	661	-	-	-	
Mov Cap-2 Maneuver	-	534	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	
Stage 2	-	598	-	-	-	-	-	-	-	

Approach	EB	WB	NB
HCM Control Delay, s	26	17.8	0
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	534	661
HCM Lane V/C Ratio	-	-	0.7	0.582
HCM Control Delay (s)	-	-	26	17.8
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q(veh)	-	-	5.5	3.8

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	19	4	4	295	225	34
Future Volume (vph)	19	4	4	295	225	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1622	0	0	3536	3468	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1622	0	0	3536	3468	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)	2	2	2			2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	332	288	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 21.6%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	4	4	295	225	34
Future Vol, veh/h	19	4	4	295	225	34
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	2	2	2	2
Mvmt Flow	21	4	4	328	250	38
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	445	148	290	0	-	0
Stage 1	271	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	7	7.1	4.14	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.22	-	-	-
Pot Cap-1 Maneuver	522	847	1269	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	518	844	1267	-	-	-
Mov Cap-2 Maneuver	518	-	-	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	813	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.8	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1267	-	555	-	-	
HCM Lane V/C Ratio	0.004	-	0.046	-	-	
HCM Control Delay (s)	7.9	0	11.8	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	24	13	4	17	4	4
Future Volume (vph)	24	13	4	17	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1754	0	0	1776	1694	0
Flt Permitted				0.991	0.976	
Satd. Flow (perm)	1754	0	0	1776	1694	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1295	1990	
Travel Time (s)	25.7			35.3	54.3	
Confl. Peds. (#/hr)			1			1
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	3%	3%	6%	6%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	0	0	28	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 14.7%	ICU Level of Service A					
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	13	4	17	4	4
Future Vol, veh/h	24	13	4	17	4	4
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	6	6	2	2
Mvmt Flow	32	18	5	23	5	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	51	0	75	43
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1530	-	928	1027
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	989	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	924	1025
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	986	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.4		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	972		-	-	1529	-
HCM Lane V/C Ratio	0.011		-	-	0.004	-
HCM Control Delay (s)	8.7		-	-	7.4	0
HCM Lane LOS	A		-	-	A	A
HCM 95th %tile Q(veh)	0		-	-	0	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	13	4	4	16	4
Future Volume (vph)	4	4	4	4	4	4	4	13	4	4	16	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1750	0	0	1800	0	0	1807	0
Flt Permitted		0.984			0.984			0.991			0.992	
Satd. Flow (perm)	0	1750	0	0	1750	0	0	1800	0	0	1807	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	12	0	0	22	0	0	25	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	13	4	4	16	4
Future Vol, veh/h	4	4	4	4	4	4	4	13	4	4	16	4
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	4	4	4	4	14	4	4	17	4
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	57	55	21	57	55	18	22	0	0	19	0	0
Stage 1	28	28	-	25	25	-	-	-	-	-	-	-
Stage 2	29	27	-	32	30	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	940	836	1056	940	836	1061	1593	-	-	1597	-	-
Stage 1	989	872	-	993	874	-	-	-	-	-	-	-
Stage 2	988	873	-	984	870	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	829	1054	926	829	1059	1591	-	-	1595	-	-
Mov Cap-2 Maneuver	927	829	-	926	829	-	-	-	-	-	-	-
Stage 1	985	869	-	989	871	-	-	-	-	-	-	-
Stage 2	975	870	-	971	867	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.9		8.9			1.4			1.2			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1591	-	-	928	929	1595	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.014	0.014	0.003	-	-				
HCM Control Delay (s)	7.3	0	-	8.9	8.9	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	4	5	4	4	7	20	4	4	21	4
Future Volume (vph)	4	5	4	5	4	4	7	20	4	4	21	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1758	0	0	1752	0	0	1809	0	0	1815	0
Flt Permitted		0.985			0.982			0.989			0.993	
Satd. Flow (perm)	0	1758	0	0	1752	0	0	1809	0	0	1815	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	16	0	0	37	0	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	5	4	5	4	4	7	20	4	4	21	4
Future Vol, veh/h	4	5	4	5	4	4	7	20	4	4	21	4
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	6	5	6	5	5	8	24	5	5	25	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	88	84	30	87	84	28	31	0	0	29	0	0
Stage 1	39	39	-	43	43	-	-	-	-	-	-	-
Stage 2	49	45	-	44	41	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	897	806	1044	899	806	1047	1582	-	-	1584	-	-
Stage 1	976	862	-	971	859	-	-	-	-	-	-	-
Stage 2	964	857	-	970	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	882	799	1042	884	799	1046	1580	-	-	1584	-	-
Mov Cap-2 Maneuver	882	799	-	884	799	-	-	-	-	-	-	-
Stage 1	970	859	-	966	855	-	-	-	-	-	-	-
Stage 2	949	853	-	955	858	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.1	1.6	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1580	-	-	888	897	1584	-	-
HCM Lane V/C Ratio	0.005	-	-	0.017	0.017	0.003	-	-
HCM Control Delay (s)	7.3	0	-	9.1	9.1	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

US 1 Multifamily
7: Shopping Center Dwy/N Saylor Street & W Pennsylvania Ave

Background PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	363	10	4	550	17	9	4	4	9	4	59
Future Volume (vph)	30	363	10	4	550	17	9	4	4	9	4	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1855	0	1770	1855	0	0	1758	0	0	1646	0
Flt Permitted	0.950			0.950				0.973			0.994	
Satd. Flow (perm)	1770	1855	0	1770	1855	0	0	1758	0	0	1646	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Confl. Peds. (#/hr)	3					3				3		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	406	0	4	616	0	0	18	0	0	78	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 42.1%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	363	10	4	550	17	9	4	4	9	4	59
Future Vol, veh/h	30	363	10	4	550	17	9	4	4	9	4	59
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	395	11	4	598	18	10	4	4	10	4	64

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	619	0	0	406	0	0	1119	1094	404	1092	1090	613
Stage 1	-	-	-	-	-	-	467	467	-	618	618	-
Stage 2	-	-	-	-	-	-	652	627	-	474	472	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	961	-	-	1153	-	-	184	214	647	192	215	492
Stage 1	-	-	-	-	-	-	576	562	-	477	481	-
Stage 2	-	-	-	-	-	-	457	476	-	571	559	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	958	-	-	1153	-	-	152	205	645	181	206	489
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	205	-	181	206	-
Stage 1	-	-	-	-	-	-	556	543	-	459	478	-
Stage 2	-	-	-	-	-	-	391	473	-	542	540	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	24.8	17
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	200	958	-	-	1153	-	-	379
HCM Lane V/C Ratio	0.092	0.034	-	-	0.004	-	-	0.206
HCM Control Delay (s)	24.8	8.9	-	-	8.1	-	-	17
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.8

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	1519	4	0	0
Future Volume (vph)	0	4	1519	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1611	3471	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3471	0	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1731	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 52.1%	ICU Level of Service A					
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	1519	4	0	0
Future Vol, veh/h	0	4	1519	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	0	5	1726	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	866	0	0		
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	297	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %	-	-	-	-		
Mov Cap-1 Maneuver	-	297	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	17.3		0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBR	WBLn1		
Capacity (veh/h)	-		-	297		
HCM Lane V/C Ratio	-		-	0.015		
HCM Control Delay (s)	-		-	17.3		
HCM Lane LOS	-		-	C		
HCM 95th %tile Q(veh)	-		-	0		

Appendix F:
Synchro Output:
Build-Out (2031)

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Build-out (2031) AM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	35	0	4	0	0	0	0	0	322	4
Future Volume (vph)	0	0	35	0	4	0	0	0	0	0	322	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)			2									1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	42	0	5	0	0	0	0	0	393	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	
Traffic Vol, veh/h	0	0	35	0	4	0	0	0	0	0	322	4
Future Vol, veh/h	0	0	35	0	4	0	0	0	0	0	322	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	42	0	5	0	0	0	0	0	388	5

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	-	391	-	393	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	393	-
Critical Hdwy	-	-	6.27	-	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	3.363	-	4.018	-
Pot Cap-1 Maneuver	0	0	647	0	543	0
Stage 1	0	0	-	0	-	0
Stage 2	0	0	-	0	606	0
Platoon blocked, %						-
Mov Cap-1 Maneuver	-	-	647	-	543	-
Mov Cap-2 Maneuver	-	-	-	-	543	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	SB
HCM Control Delay, s	11	11.7	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	647 543	-	-
HCM Lane V/C Ratio	0.065 0.009	-	-
HCM Control Delay (s)	11 11.7	-	-
HCM Lane LOS	B B	-	-
HCM 95th %tile Q(veh)	0.2 0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Build-out (2031) AM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	350	0	0	0	405	0	267	30	0	0	0
Future Volume (vph)	0	350	0	0	0	405	0	267	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	422	0	0	0	488	0	358	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 66.7%												
ICU Level of Service C												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	17.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	350	0	0	0	405	0	267	30	0	0	0
Future Vol, veh/h	0	350	0	0	0	405	0	267	30	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	422	0	0	0	488	0	322	36	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	-	358	-	-	-	340	-	0	0	
Stage 1	-	0	-	-	-	-	-	-	-	
Stage 2	-	358	-	-	-	-	-	-	-	
Critical Hdwy	-	6.52	-	-	-	6.22	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	-	4.018	-	-	-	3.318	-	-	-	
Pot Cap-1 Maneuver	0	568	0	0	0	702	0	-	-	
Stage 1	0	-	0	0	0	-	0	-	-	
Stage 2	0	628	0	0	0	-	0	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	-	568	-	-	-	702	-	-	-	
Mov Cap-2 Maneuver	-	568	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	
Stage 2	-	628	-	-	-	-	-	-	-	

Approach	EB	WB	NB
HCM Control Delay, s	27.4	21	0
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	-	-	568 702
HCM Lane V/C Ratio	-	-	0.742 0.695
HCM Control Delay (s)	-	-	27.4 21
HCM Lane LOS	-	-	D C
HCM 95th %tile Q(veh)	-	-	6.4 5.6

US 1 Multifamily
3: Midland Road & Crestview Road

Build-out (2031) AM
10/14/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	4	4	236	290	31
Future Volume (vph)	22	4	4	236	290	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1620	0	0	3468	3486	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1620	0	0	3468	3486	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	10%	10%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	276	369	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.7%			ICU Level of Service A		
Analysis Period (min)	15					

US 1 Multifamily
3: Midland Road & Crestview Road

Build-out (2031) AM
10/14/2021

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	4	4	236	290	31
Future Vol, veh/h	22	4	4	236	290	31
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	10	4	4	2	2
Mvmt Flow	25	5	5	271	333	36

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	498	187	370	0	-	0
Stage 1	352	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	7	7.1	4.18	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.24	-	-	-
Pot Cap-1 Maneuver	482	799	1171	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	479	797	1170	-	-	-
Mov Cap-2 Maneuver	479	-	-	-	-	-
Stage 1	656	-	-	-	-	-
Stage 2	842	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1170	-	510	-	-
HCM Lane V/C Ratio	0.004	-	0.059	-	-
HCM Control Delay (s)	8.1	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

US 1 Multifamily
4: N Saylor Street & Crestview Road

Build-out (2031) AM
10/14/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	21	15	4	14	10	5
Future Volume (vph)	21	15	4	14	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1614	0	0	1844	1524	0
Flt Permitted				0.990	0.969	
Satd. Flow (perm)	1614	0	0	1844	1524	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1313	1990	
Travel Time (s)	25.7			35.8	54.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	2%	2%	15%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	0	20	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 14.2%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	15	4	14	10	5
Future Vol, veh/h	21	15	4	14	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	11	11	2	2	15	15
Mvmt Flow	23	17	4	16	11	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	40	0	56	32
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.55	6.35
Critical Hdwy Stg 1	-	-	-	-	5.55	-
Critical Hdwy Stg 2	-	-	-	-	5.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.435
Pot Cap-1 Maneuver	-	-	1570	-	920	1006
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1570	-	917	1006
Mov Cap-2 Maneuver	-	-	-	-	917	-
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	963	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.6		8.9	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	945	-	-	1570	-	
HCM Lane V/C Ratio	0.018	-	-	0.003	-	
HCM Control Delay (s)	8.9	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile O(veh)	0.1	-	-	0	-	

US 1 Multifamily
5: N Saylor Street & W. Rhode Island Ave

Build-out (2031) AM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	12	4	4	27	4
Future Volume (vph)	4	4	4	4	4	4	4	12	4	4	27	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1666	0	0	1773	0
Flt Permitted		0.984			0.984			0.990			0.995	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1666	0	0	1773	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	10%	10%	10%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	15	0	0	26	0	0	46	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	12	4	4	27	4
Future Vol, veh/h	4	4	4	4	4	4	4	12	4	4	27	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	50	50	50	10	10	10	5	5	5
Mvmt Flow	5	5	5	5	5	5	5	16	5	5	36	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	83	80	39	83	80	19	41	0	0	21	0	0
Stage 1	49	49	-	29	29	-	-	-	-	-	-	-
Stage 2	34	31	-	54	51	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.2	-	-	4.15	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.29	-	-	2.245	-	-
Pot Cap-1 Maneuver	904	810	1033	800	727	936	1518	-	-	1575	-	-
Stage 1	964	854	-	878	785	-	-	-	-	-	-	-
Stage 2	982	869	-	850	767	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	890	805	1033	788	723	936	1518	-	-	1575	-	-
Mov Cap-2 Maneuver	890	805	-	788	723	-	-	-	-	-	-	-
Stage 1	961	851	-	875	783	-	-	-	-	-	-	-
Stage 2	967	866	-	838	765	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.1		9.6		1.5		0.8	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1518	-	-	900	806	1575	-
HCM Lane V/C Ratio	0.004	-	-	0.018	0.02	0.003	-
HCM Control Delay (s)	7.4	0	-	9.1	9.6	7.3	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

US 1 Multifamily
6: N Saylor Street & Vermont Ave

Build-out (2031) AM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	14	4	4	33	4
Future Volume (vph)	4	4	4	4	4	4	4	14	4	4	33	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1734	0	0	1794	0
Flt Permitted		0.984			0.984			0.991			0.995	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1734	0	0	1794	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)				1		1			1	1		
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	6%	6%	6%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	18	0	0	34	0	0	63	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	14	4	4	33	4
Future Vol, veh/h	4	4	4	4	4	4	4	14	4	4	33	4
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	50	50	50	6	6	6	4	4	4
Mvmt Flow	6	6	6	6	6	6	6	22	6	6	51	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	110	107	55	111	107	27	57	0	0	29	0	0
Stage 1	66	66	-	38	38	-	-	-	-	-	-	-
Stage 2	44	41	-	73	69	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	868	783	1012	766	701	926	1522	-	-	1571	-	-
Stage 1	945	840	-	868	777	-	-	-	-	-	-	-
Stage 2	970	861	-	830	752	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	851	776	1011	751	695	924	1522	-	-	1570	-	-
Mov Cap-2 Maneuver	851	776	-	751	695	-	-	-	-	-	-	-
Stage 1	941	837	-	864	773	-	-	-	-	-	-	-
Stage 2	951	857	-	815	749	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.2		9.7			1.3			0.7			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1522	-	-	869	779	1570	-	-				
HCM Lane V/C Ratio	0.004	-	-	0.021	0.024	0.004	-	-				
HCM Control Delay (s)	7.4	0	-	9.2	9.7	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.1	0.1	0	-	-				

US 1 Multifamily
7: Private Drive/N Saylor Street & W Pennsylvania Ave

Build-out (2031) AM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	472	10	4	330	21	9	4	4	25	4	56
Future Volume (vph)	49	472	10	4	330	21	9	4	4	25	4	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1857	0	1770	1846	0	0	1758	0	0	1671	0
Flt Permitted	0.950			0.950				0.973			0.986	
Satd. Flow (perm)	1770	1857	0	1770	1846	0	0	1758	0	0	1671	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	530	0	4	386	0	0	18	0	0	93	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	44.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	472	10	4	330	21	9	4	4	25	4	56
Future Vol, veh/h	49	472	10	4	330	21	9	4	4	25	4	56
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	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	519	11	4	363	23	10	4	4	27	4	62

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	386	0	0	530	0	0	1049	1027	525	1020	1021	375
Stage 1	-	-	-	-	-	-	633	633	-	383	383	-
Stage 2	-	-	-	-	-	-	416	394	-	637	638	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1172	-	-	1037	-	-	205	234	552	215	236	671
Stage 1	-	-	-	-	-	-	468	473	-	640	612	-
Stage 2	-	-	-	-	-	-	614	605	-	465	471	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1172	-	-	1037	-	-	177	222	552	202	224	671
Mov Cap-2 Maneuver	-	-	-	-	-	-	177	222	-	202	224	-
Stage 1	-	-	-	-	-	-	446	451	-	611	610	-
Stage 2	-	-	-	-	-	-	552	603	-	436	449	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.1	22.6	17.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	223	1172	-	-	1037	-	-	378
HCM Lane V/C Ratio	0.084	0.046	-	-	0.004	-	-	0.247
HCM Control Delay (s)	22.6	8.2	-	-	8.5	-	-	17.6
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Build-out (2031) AM

10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	26	984	27	0	0
Future Volume (vph)	0	26	984	27	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	0	1		1	0	
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	1611	3374	1509	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3374	1509	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	2%	2%	7%	7%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	33	1230	34	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.2%			ICU Level of Service A		
Analysis Period (min)	15					

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Build-out (2031) AM
10/14/2021

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	26	984	27	0	0
Future Vol, veh/h	0	26	984	27	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	50	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	0	33	1230	34	0	0
Major/Minor	Minor1	Major1				
Conflicting Flow All	-	615	0	0		
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	434	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	434	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB	NB				
HCM Control Delay, s	14	0				
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1				
Capacity (veh/h)	-	-	434			
HCM Lane V/C Ratio	-	-	0.075			
HCM Control Delay (s)	-	-	14			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.2			

US 1 Multifamily
9: US 1 NB Service Road & Site Driveway #1

Build-out (2031) AM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	4	16	10	4	33
Future Volume (vph)	15	4	16	10	4	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1744	0	1768	0	0	1853
Flt Permitted	0.961					0.995
Satd. Flow (perm)	1744	0	1768	0	0	1853
Link Speed (mph)	25		30			30
Link Distance (ft)	290		288			821
Travel Time (s)	7.9		6.5			18.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	0	29	0	0	41
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 15.1% ICU Level of Service A						
Analysis Period (min) 15						

US 1 Multifamily
9: US 1 NB Service Road & Site Driveway #1

Build-out (2031) AM

10/14/2021

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	4	16	10	4	33
Future Vol, veh/h	15	4	16	10	4	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	4	18	11	4	37
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	69	24	0	0	29	0
Stage 1	24	-	-	-	-	-
Stage 2	45	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	936	1052	-	-	1584	-
Stage 1	999	-	-	-	-	-
Stage 2	977	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	933	1052	-	-	1584	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	8.9	0	0.8			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	956	1584	-	
HCM Lane V/C Ratio	-	-	0.022	0.003	-	
HCM Control Delay (s)	-	-	8.9	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

US 1 Multifamily
10: US 1 NB Service Road & Site Driveway #2

Build-out (2031) AM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	15	9	11	19	10
Future Volume (vph)	26	15	9	11	19	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1715	0	1725	0	0	1803
Flt Permitted	0.969					0.968
Satd. Flow (perm)	1715	0	1725	0	0	1803
Link Speed (mph)	25		30			30
Link Distance (ft)	398		821			192
Travel Time (s)	10.9		18.7			4.4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	46	0	22	0	0	32
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.2%			ICU Level of Service A			
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	5.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	15	9	11	19	10
Future Vol, veh/h	26	15	9	11	19	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	17	10	12	21	11

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	69	16	0
Stage 1	16	-	-
Stage 2	53	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	936	1063	-
Stage 1	1007	-	-
Stage 2	970	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	924	1063	-
Mov Cap-2 Maneuver	924	-	-
Stage 1	1007	-	-
Stage 2	957	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	4.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	970	1593
HCM Lane V/C Ratio	-	-	0.047	0.013
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	21	19	5	7	7
Future Volume (vph)	5	21	19	5	7	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1647	0	0	1794	1736	0
Flt Permitted	0.990			0.963		
Satd. Flow (perm)	1647	0	0	1794	1736	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	194			192	513	
Travel Time (s)	5.3			4.4	11.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	0	27	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Free			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.0% ICU Level of Service A

Analysis Period (min) 15

11: US 1 NB Service Road & US 1 NB Service Road Access Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	4.0	3.8	2.4

US 1 Multifamily
12: US 1 NB Service Road & Site Driveway #3

Build-out (2031) AM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	4	4	10	4	4
Future Volume (vph)	14	4	4	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1744	0	1678	0	0	1818
Flt Permitted	0.962					0.976
Satd. Flow (perm)	1744	0	1678	0	0	1818
Link Speed (mph)	25		30			30
Link Distance (ft)	285		513			402
Travel Time (s)	7.8		11.7			9.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	20	0	15	0	0	8
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 13.8%			ICU Level of Service A			
Analysis Period (min) 15						

US 1 Multifamily
12: US 1 NB Service Road & Site Driveway #3

Build-out (2031) AM
10/14/2021

Intersection						
Int Delay, s/veh	4.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	4	4	10	4	4
Future Vol, veh/h	14	4	4	10	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	4	4	11	4	4

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	22	10	0
Stage 1	10	-	-
Stage 2	12	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	995	1071	-
Stage 1	1013	-	-
Stage 2	1011	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	992	1071	-
Mov Cap-2 Maneuver	992	-	-
Stage 1	1013	-	-
Stage 2	1008	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1009	1603
HCM Lane V/C Ratio	-	-	0.02	0.003
HCM Control Delay (s)	-	-	8.6	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Build-out (2031) PM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	46	0	4	0	0	0	0	0	260	4
Future Volume (vph)	0	0	46	0	4	0	0	0	0	0	260	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)			2									1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	50	0	4	0	0	0	0	0	287	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.9%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↑						↘	
Traffic Vol, veh/h	0	0	46	0	4	0	0	0	0	0	260	4
Future Vol, veh/h	0	0	46	0	4	0	0	0	0	0	260	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	50	0	4	0	0	0	0	0	283	4

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	-	285	-	287	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	287	-
Critical Hdwy	-	-	6.22	-	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	3.318	-	4.018	-
Pot Cap-1 Maneuver	0	0	754	0	623	0
Stage 1	0	0	-	0	-	0
Stage 2	0	0	-	0	674	0
Platoon blocked, %						-
Mov Cap-1 Maneuver	-	-	754	-	623	-
Mov Cap-2 Maneuver	-	-	-	-	623	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	674	-

Approach	EB	WB	SB
HCM Control Delay, s	10.1	10.8	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	754 623	-	-
HCM Lane V/C Ratio	0.066 0.007	-	-
HCM Control Delay (s)	10.1 10.8	-	-
HCM Lane LOS	B B	-	-
HCM 95th %tile Q(veh)	0.2 0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Build-out (2031) PM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	344	0	0	0	368	0	338	36	0	0	0
Future Volume (vph)	0	344	0	0	0	368	0	338	36	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	374	0	0	0	400	0	406	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 68.2%												
ICU Level of Service C												
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	0	344	0	0	0	368	0	338	36	0	0	0
Future Vol, veh/h	0	344	0	0	0	368	0	338	36	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	374	0	0	0	400	0	367	39	0	0	0

Major/Minor	Minor2		Minor1		Major1	
Conflicting Flow All	-	406	-	-	-	387
Stage 1	-	0	-	-	-	-
Stage 2	-	406	-	-	-	-
Critical Hdwy	-	6.52	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.52	-	-	-	-
Follow-up Hdwy	-	4.018	-	-	-	3.318
Pot Cap-1 Maneuver	0	534	0	0	0	661
Stage 1	0	-	0	0	0	-
Stage 2	0	598	0	0	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	534	-	-	-	661
Mov Cap-2 Maneuver	-	534	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	598	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	26	18.4	0
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	534	661
HCM Lane V/C Ratio	-	-	0.7	0.605
HCM Control Delay (s)	-	-	26	18.4
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q(veh)	-	-	5.5	4.1

US 1 Multifamily
3: Midland Road & Crestview Road

Build-out (2031) PM
10/14/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	19	4	4	295	225	41
Future Volume (vph)	19	4	4	295	225	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1622	0	0	3536	3458	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1622	0	0	3536	3458	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)	2	2	2			2
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	332	296	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.6%			ICU Level of Service A		
Analysis Period (min)	15					

US 1 Multifamily
3: Midland Road & Crestview Road

Build-out (2031) PM
10/14/2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕↕	↕↕	
Traffic Vol, veh/h	19	4	4	295	225	41
Future Vol, veh/h	19	4	4	295	225	41
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	2	2	2	2
Mvmt Flow	21	4	4	328	250	46

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	449	152	298	0	-	0
Stage 1	275	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	7	7.1	4.14	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.22	-	-	-
Pot Cap-1 Maneuver	518	842	1260	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	514	839	1258	-	-	-
Mov Cap-2 Maneuver	514	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	813	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1258	-	551	-	-
HCM Lane V/C Ratio	0.004	-	0.046	-	-
HCM Control Delay (s)	7.9	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

US 1 Multifamily
4: N Saylor Street & Crestview Road

Build-out (2031) PM
10/14/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	24	20	4	17	4	4
Future Volume (vph)	24	20	4	17	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1730	0	0	1776	1694	0
Flt Permitted				0.991	0.976	
Satd. Flow (perm)	1730	0	0	1776	1694	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1313	1990	
Travel Time (s)	25.7			35.8	54.3	
Confl. Peds. (#/hr)			1			1
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	3%	3%	6%	6%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	59	0	0	28	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	14.7%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	20	4	17	4	4
Future Vol, veh/h	24	20	4	17	4	4
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	6	6	2	2
Mvmt Flow	32	27	5	23	5	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	60	0	80	48
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1518	-	922	1021
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	989	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1517	-	918	1019
Mov Cap-2 Maneuver	-	-	-	-	918	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	986	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.4		8.8	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	966	-	-	1517	-	
HCM Lane V/C Ratio	0.011	-	-	0.004	-	
HCM Control Delay (s)	8.8	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile O(veh)	0	-	-	0	-	

US 1 Multifamily
5: N Saylor Street & W. Rhode Island Ave

Build-out (2031) PM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	13	4	4	23	4
Future Volume (vph)	4	4	4	4	4	4	4	13	4	4	23	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1750	0	0	1800	0	0	1822	0
Flt Permitted		0.984			0.984			0.991			0.994	
Satd. Flow (perm)	0	1750	0	0	1750	0	0	1800	0	0	1822	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	12	0	0	22	0	0	33	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	13	4	4	23	4
Future Vol, veh/h	4	4	4	4	4	4	4	13	4	4	23	4
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	4	4	4	4	14	4	4	25	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	65	63	29	65	63	18	30	0	0	19	0	0
Stage 1	36	36	-	25	25	-	-	-	-	-	-	-
Stage 2	29	27	-	40	38	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	929	828	1046	929	828	1061	1583	-	-	1597	-	-
Stage 1	980	865	-	993	874	-	-	-	-	-	-	-
Stage 2	988	873	-	975	863	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	915	821	1044	915	821	1059	1581	-	-	1595	-	-
Mov Cap-2 Maneuver	915	821	-	915	821	-	-	-	-	-	-	-
Stage 1	976	862	-	989	871	-	-	-	-	-	-	-
Stage 2	975	870	-	962	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	9	1.4	0.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1581	-	-	918	922	1595	-
HCM Lane V/C Ratio	0.003	-	-	0.014	0.014	0.003	-
HCM Control Delay (s)	7.3	0	-	9	9	7.3	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

US 1 Multifamily
6: N Saylor Street & Vermont Ave

Build-out (2031) PM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	4	5	4	4	7	20	4	4	28	4
Future Volume (vph)	4	5	4	5	4	4	7	20	4	4	28	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1758	0	0	1752	0	0	1809	0	0	1822	0
Flt Permitted		0.985			0.982			0.989			0.994	
Satd. Flow (perm)	0	1758	0	0	1752	0	0	1809	0	0	1822	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	16	0	0	37	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	5	4	5	4	4	7	20	4	4	28	4
Future Vol, veh/h	4	5	4	5	4	4	7	20	4	4	28	4
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	6	5	6	5	5	8	24	5	5	33	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	96	92	38	95	92	28	39	0	0	29	0	0
Stage 1	47	47	-	43	43	-	-	-	-	-	-	-
Stage 2	49	45	-	52	49	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	887	798	1034	888	798	1047	1571	-	-	1584	-	-
Stage 1	967	856	-	971	859	-	-	-	-	-	-	-
Stage 2	964	857	-	961	854	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	872	791	1032	873	791	1046	1570	-	-	1584	-	-
Mov Cap-2 Maneuver	872	791	-	873	791	-	-	-	-	-	-	-
Stage 1	961	853	-	966	855	-	-	-	-	-	-	-
Stage 2	949	853	-	946	851	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.2		9.1			1.6			0.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1570	-	-	879	890	1584	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.018	0.017	0.003	-	-				
HCM Control Delay (s)	7.3	0	-	9.2	9.1	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.1	0.1	0	-	-				

US 1 Multifamily
7: Private Drive/N Saylor Street & W Pennsylvania Ave

Build-out (2031) PM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	363	10	4	550	39	9	4	4	25	4	78
Future Volume (vph)	37	363	10	4	550	39	9	4	4	25	4	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1855	0	1770	1844	0	0	1758	0	0	1658	0
Flt Permitted	0.950			0.950				0.973			0.988	
Satd. Flow (perm)	1770	1855	0	1770	1844	0	0	1758	0	0	1658	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Confl. Peds. (#/hr)	3					3				3		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	406	0	4	640	0	0	18	0	0	116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	45.5%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	363	10	4	550	39	9	4	4	25	4	78
Future Vol, veh/h	37	363	10	4	550	39	9	4	4	25	4	78
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	395	11	4	598	42	10	4	4	27	4	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	643	0	0	406	0	0	1156	1132	404	1118	1116	625
Stage 1	-	-	-	-	-	-	481	481	-	630	630	-
Stage 2	-	-	-	-	-	-	675	651	-	488	486	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	942	-	-	1153	-	-	174	203	647	184	208	485
Stage 1	-	-	-	-	-	-	566	554	-	470	475	-
Stage 2	-	-	-	-	-	-	444	465	-	561	551	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	939	-	-	1153	-	-	136	193	645	172	198	482
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	193	-	172	198	-
Stage 1	-	-	-	-	-	-	542	530	-	449	472	-
Stage 2	-	-	-	-	-	-	360	462	-	528	527	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.1			26.9			22		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	183	939	-	-	1153	-	-	327
HCM Lane V/C Ratio	0.101	0.043	-	-	0.004	-	-	0.356
HCM Control Delay (s)	26.9	9	-	-	8.1	-	-	22
HCM Lane LOS	D	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.6

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Build-out (2031) PM

10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	20	1519	38	0	0
Future Volume (vph)	0	20	1519	38	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	0	1		1	0	
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	1611	3471	1553	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3471	1553	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	1726	43	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	52.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1519	38	0	0
Future Vol, veh/h	0	20	1519	38	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	50	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	0	23	1726	43	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	863	0	0		
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	298	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	298	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	18.1		0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 298			
HCM Lane V/C Ratio	-		- 0.076			
HCM Control Delay (s)	-		- 18.1			
HCM Lane LOS	-		- C			
HCM 95th %tile Q(veh)	-		- 0.2			

US 1 Multifamily
9: US 1 NB Service Road & Site Driveway #1

Build-out (2031) PM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	4	22	14	4	24
Future Volume (vph)	10	4	22	14	4	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1733	0	1762	0	0	1852
Flt Permitted	0.965					0.994
Satd. Flow (perm)	1733	0	1762	0	0	1852
Link Speed (mph)	25		30			30
Link Distance (ft)	290		288			812
Travel Time (s)	7.9		6.5			18.5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	40	0	0	31
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 14.7%			ICU Level of Service A			
Analysis Period (min) 15						

US 1 Multifamily
9: US 1 NB Service Road & Site Driveway #1

Build-out (2031) PM

10/14/2021

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	10	4	22	14	4	24
Future Vol, veh/h	10	4	22	14	4	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	11	4	24	16	4	27
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	67	32	0	0	40	0
Stage 1	32	-	-	-	-	-
Stage 2	35	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	938	1042	-	-	1570	-
Stage 1	991	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	935	1042	-	-	1570	-
Mov Cap-2 Maneuver	935	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	8.8	0	1			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	963	1570	-	
HCM Lane V/C Ratio	-	-	0.016	0.003	-	
HCM Control Delay (s)	-	-	8.8	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

US 1 Multifamily
10: US 1 NB Service Road & Site Driveway #2

Build-out (2031) PM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	19	11	10	15	26	9
Future Volume (vph)	19	11	10	15	26	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1717	0	1710	0	0	1796
Flt Permitted	0.969					0.964
Satd. Flow (perm)	1717	0	1710	0	0	1796
Link Speed (mph)	25		30			30
Link Distance (ft)	349		812			202
Travel Time (s)	9.5		18.5			4.6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	28	0	0	39
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.6%			ICU Level of Service A			
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	11	10	15	26	9
Future Vol, veh/h	19	11	10	15	26	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	21	12	11	17	29	10
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	88	20	0	0	28	0
Stage 1	20	-	-	-	-	-
Stage 2	68	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	913	1058	-	-	1585	-
Stage 1	1003	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	897	1058	-	-	1585	-
Mov Cap-2 Maneuver	897	-	-	-	-	-
Stage 1	1003	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	8.9	0		5.4		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	950	1585	-	
HCM Lane V/C Ratio	-	-	0.035	0.018	-	
HCM Control Delay (s)	-	-	8.9	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	7	29	14	7	5	5
Future Volume (vph)	7	29	14	7	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1645	0	0	1803	1736	0
Flt Permitted	0.990			0.968		
Satd. Flow (perm)	1645	0	0	1803	1736	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	194			202	513	
Travel Time (s)	5.3			4.6	11.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	0	24	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Free			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.8% ICU Level of Service A

Analysis Period (min) 15

11: US 1 NB Service Road & US 1 NB Service Road Access Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	4.0	2.9	1.7

US 1 Multifamily
12: US 1 NB Service Road & Site Driveway #3

Build-out (2031) PM

10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	11	4	4	14	4	4
Future Volume (vph)	11	4	4	14	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1735	0	1662	0	0	1818
Flt Permitted	0.964					0.976
Satd. Flow (perm)	1735	0	1662	0	0	1818
Link Speed (mph)	25		30			30
Link Distance (ft)	285		513			402
Travel Time (s)	7.8		11.7			9.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	20	0	0	8
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 13.8%						
ICU Level of Service A						
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	3.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	4	4	14	4	4
Future Vol, veh/h	11	4	4	14	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	4	4	16	4	4

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	24	12	0
Stage 1	12	-	-
Stage 2	12	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	992	1069	1596
Stage 1	1011	-	-
Stage 2	1011	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	989	1069	1596
Mov Cap-2 Maneuver	989	-	-
Stage 1	1011	-	-
Stage 2	1008	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 1009	1596	-
HCM Lane V/C Ratio	-	- 0.017	0.003	-
HCM Control Delay (s)	-	- 8.6	7.3	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.1	0	-

Agenda Item

To: Reagan Parsons, Town Manager

From: Suzy Russell, Planner II

Subject: SU-02-21 Special Use Permit; New construction of a 276-unit multi-family residential and office development located along US Highway 1 North between West Connecticut Avenue and Midland Road.

Date: December 14, 2021

I. SUMMARY OF APPLICATION REQUEST:

On behalf of Francis Maser, Mr. Bob Koontz, of Koontz Jones Design, has submitted an application for a Special Use Permit for the new construction of a multi-family residential and office development. The applicant is proposing to develop 13 apartment buildings with 276 multi-family residential units and one (1) office outparcel. The subject property is located along US Highway 1 North between West Connecticut Avenue and Midland Road and is comprised of three (3) parcels for a total of 25.4 acres of presently undeveloped, wooded land. The subject properties are identified as PIN: 858214321933 (PARID: 00039174), PIN: 858217214672 (PARID: 00032830), PIN: 858217213440 (PARID: 00032829). The property owner for all three parcels according to the Moore County tax records is Maser, Francis T Trustee.

II. PLANNING BOARD ACTION:

At the November 18th, 2021 Regular Meeting of the Planning Board, the Planning Board opened the preliminary forum per UDO §2.5.2. With five members present, Mr. Andy Bleggi and Mr. Benjamin Greene being absent, the Planning Board heard from staff as well as those in attendance regarding application SU-02-21. Ms. Suzy Russell, planner II, presented a review of the special use permit application. Ms. Russell reviewed details of the project and discussed compliance with the applicable standards and criteria found within the Unified Development Ordinance (UDO).

Mr. Nick Robinson, the applicant's attorney, spoke to the board and presented Mr. Logan Burnett as the applicant, Mr. Bob Koontz as the land planner, Mr. Travis Fluitt as the traffic engineer and Mr. Frank Dean as the MAI Appraiser. Each witness spoke about the project as related to their profession.

The Board opened the forum for public comment. Approximately 10 residents of Southern Pines spoke in opposition to the project. After hearing comments from those wishing to speak, the Planning Board closed the preliminary forum and proceeded with discussion. During discussion, a variety of issues were discussed that the Planning Board wished to forward to the Town Council.

After discussing the public's testimony, the Planning Board made the following motion:

I move to adopt the following for transmission to the Town Council as a result of the November 18, 2021 Preliminary Forum on application SU-02-21, Patrick's Pointe:

The information presented at the forum indicated that the following issues be considered in applying the criteria for a SUP to application SU-02-21:

1. Upon review of the criteria for a Special Use Permit as found in UDO §2.21.7 (A-F) the Planning Board found the SU-02-21 application inconsistent with criteria (B), (E) and (F) for the following reasons:
 - (B) *The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted; The density, scale and use appears to be incompatible with the surrounding neighborhood.*
 - (E) *The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare; In regard to safety and 2100 daily trips per day,*
 - There is no acceleration lane on Route 1
 - There will be increased traffic on side streets
 - The northern portion of the Service Rd is not going to be improved
 - There are currently school bus safety issues and this will only make them worseare not just potential impacts to the neighborhood but they will impact US 1, Midland Road, Pennsylvania Avenue and Saylor Street.
 - (F) *The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use.*

The Town Council should consider there was a large number of residents that border this property that were concerned that the quality of their life and impact on the surrounding neighborhood would adversely affect them. They do not believe that the public interest and welfare supporting the proposed use outweighs the interests of the residents that showed up and stated their concerns at the hearing.

In addition, the following concerns were raised during the forum, but do not seem to apply in determining whether the SUP criteria are satisfied:

1. If approval is warranted the Planning Board requests that the buffer be improved with increased vegetation and a barrier wall on the side of the rear bordering neighborhood.

Pursuant to NCGS §160D-301(b)(6), the Town Council is reminded that although the Planning Board forwarded this list of issues for the Council's consideration, no part of the Preliminary Forum held by the Planning Board may be used as a basis for the Council's decision on SU-02-21.

III. PROJECT INFORMATION:

A. Property Owner & Applicant Information:

- i. Property Owner:**
Francis Maser
PO Box 1133
Southern Pines, NC 28387
- ii. Applicant:**
1700, LLC
Logan Burnett
2601 South Bayshore Drive
17th Floor
Miami, FL 33133
- iii. Authorized Agent:**
Koontz Jones Design
Bob Koontz
150 S Page Street
Southern Pines, NC 28387

B. Project History and Site Information:

- i. Location:**
The subject properties are located along US Highway 1 between W. Connecticut Avenue and Midland Road. (See Figure 1 below).
- ii. Zoning:**
The sites are currently zoned Office Service (OS) and Residential Mixed Housing (RM-2). (See Figure 2 below).
- iii. Future Land Use Map Designation:**
One subject property is designated as Commercial on the Future Land Use Map. *The Commercial designation applies to all land dedicated to retail, professional office, or other primarily non-residential, commercial use. It includes the Downtown portions along Broad Street and Pennsylvania Avenue, the regional commercial corridor on US 15/501, and all commercial land in between. Higher density residential may be incorporated into mixed-use developments within areas designated for this future land use category.*

The other two subject properties are designated as Residential on the Future Land Use Map. *This designation encompasses the majority of Southern Pines' residential land, providing for single-family and attached housing at development densities ranging from one unit per acre in areas that are less intensively developed to up to twelve units per acre in places that are clearly more urban. Elementary schools, civic uses, parks and neighborhood scale commercial services may be authorized through the rezoning process without amending the future land use map.* (See Figure 3).

Figure 1: Vicinity Map (Subject Property Outlined in Black):

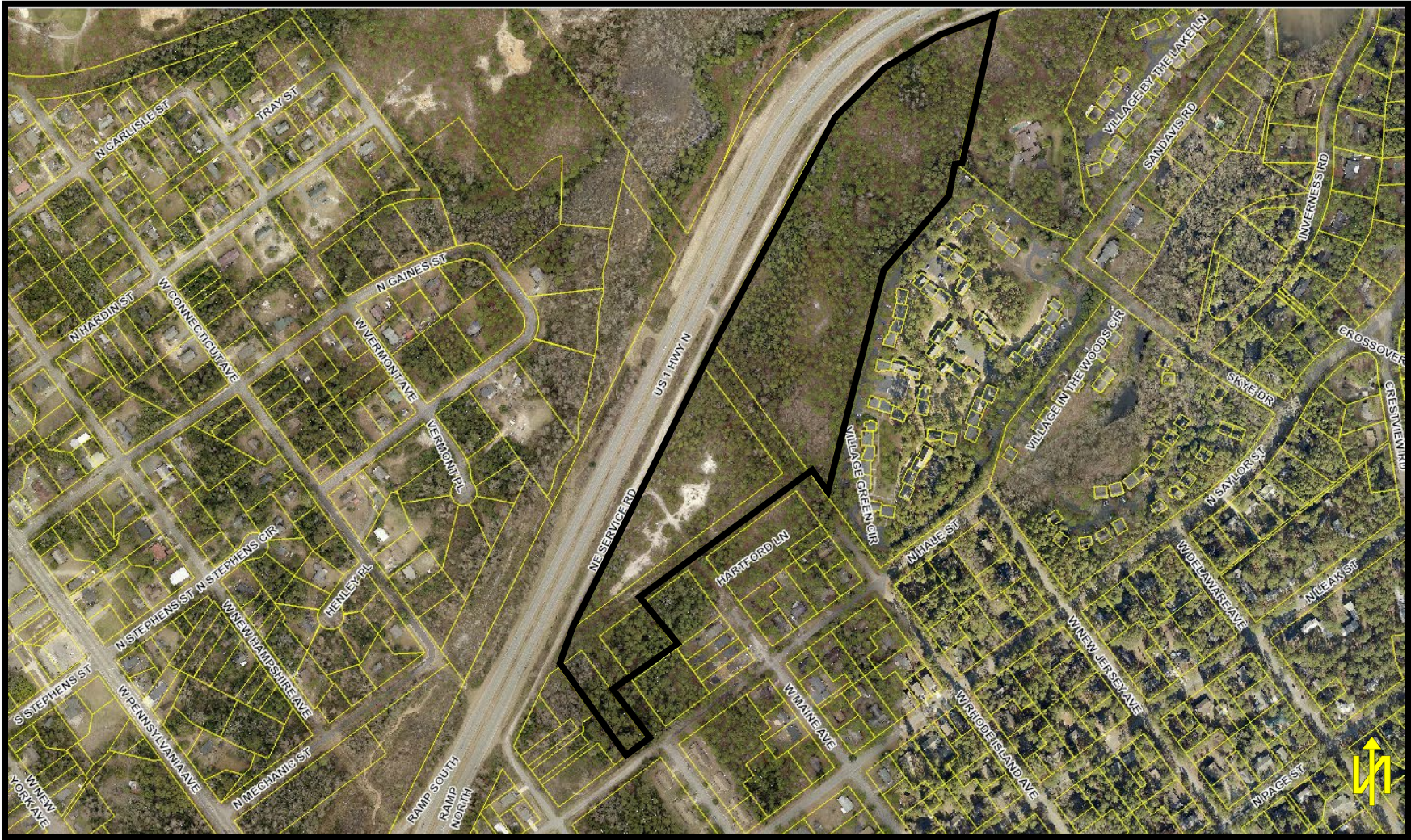


Figure 2: Zoning Map (Subject Properties (OS and RM-2) Outlined in Black):

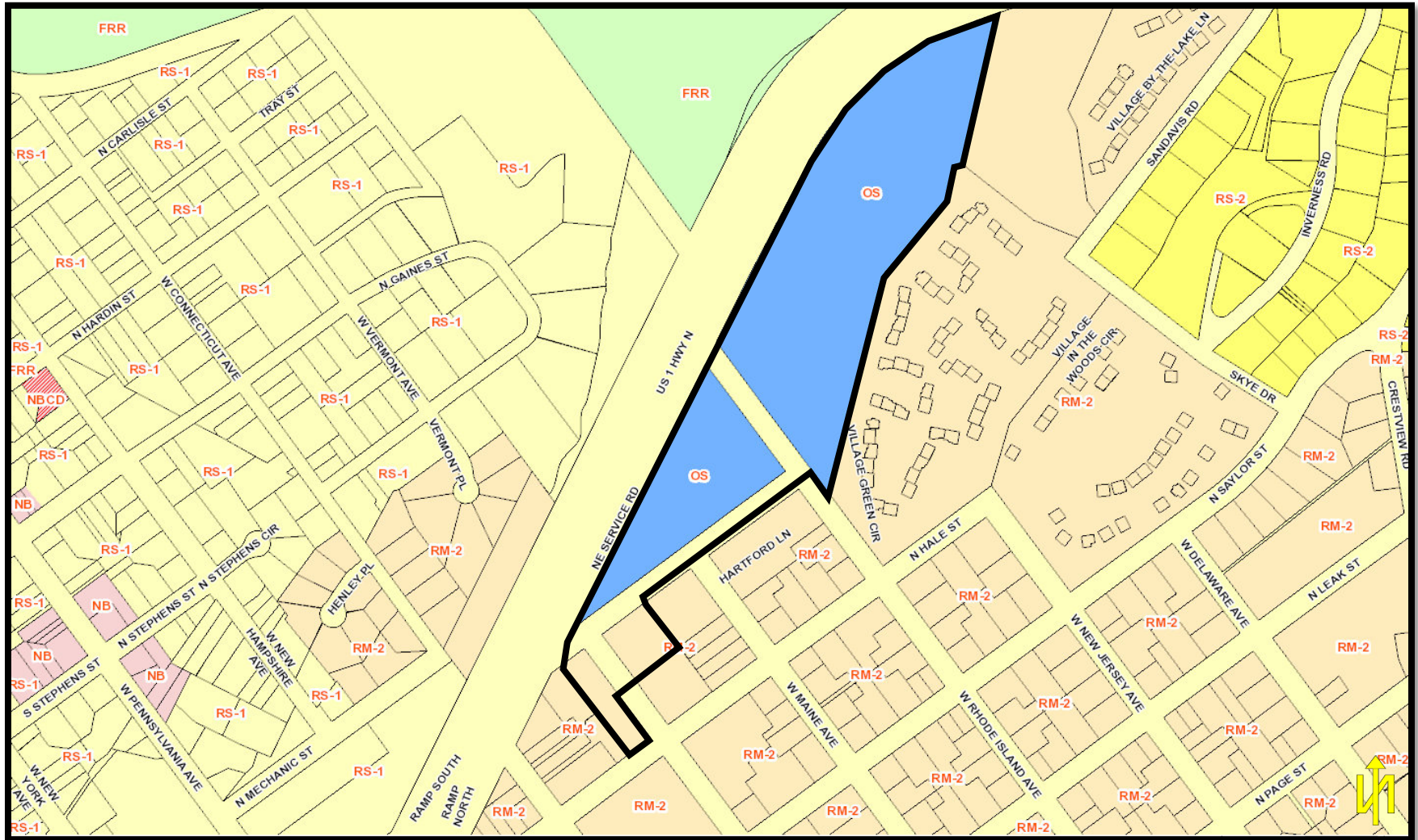
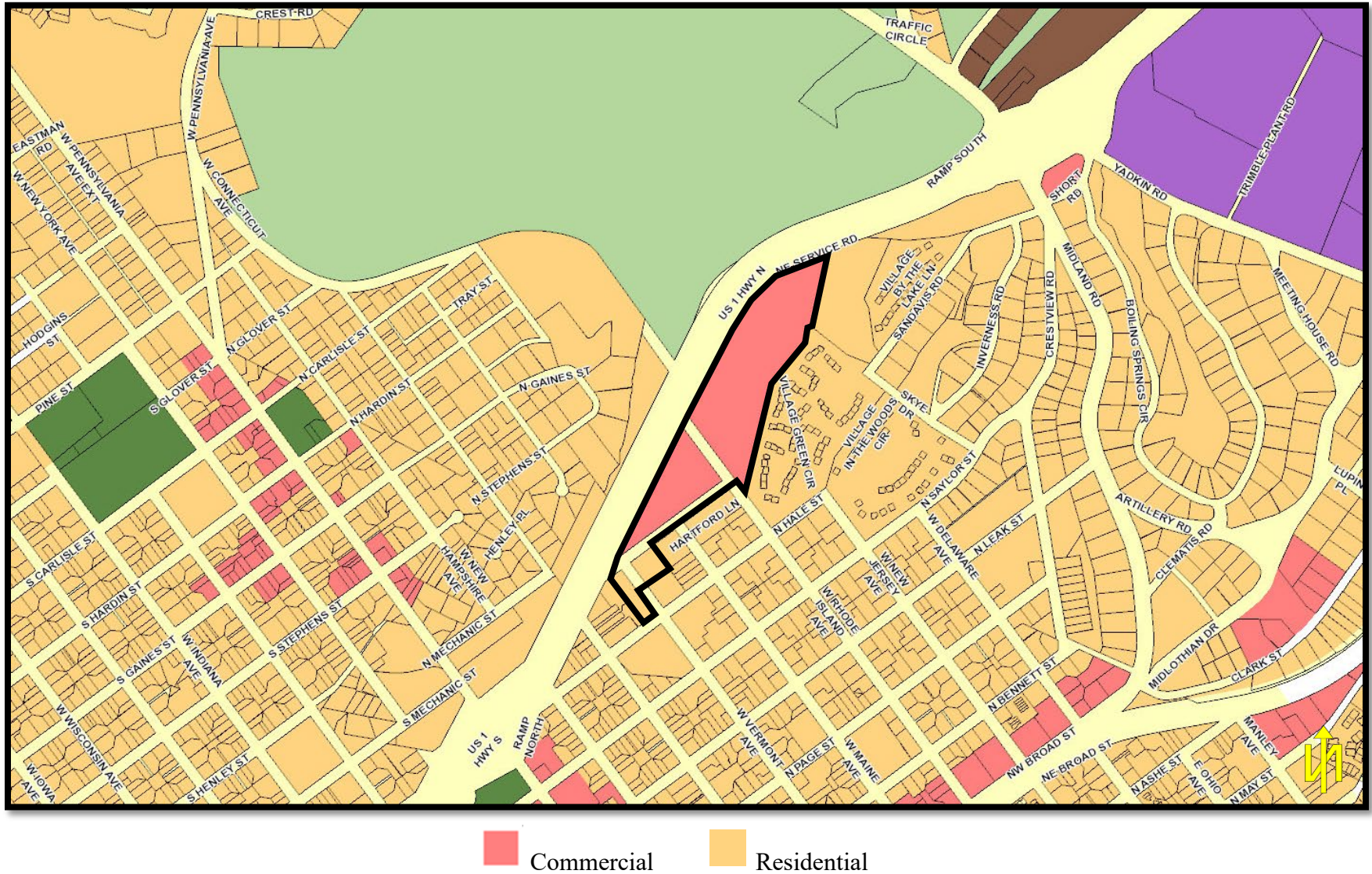


Figure 3: Future Land Use Map (Subject Properties Outlined in Black):



IV. STAFF REVIEW:

A. Application Review Dates:

- TRC Review (US 1 Village): August 17, 2021
- Special Use Permit SU-02-21 and Major Subdivision Preliminary Plat S-41-21 Applications Submitted: September 14, 2021
- SU-02-21 and S-41-21 Applications Withdrawn: September 29, 2021
- Special Use Permit SU-02-21 and Major Subdivision Preliminary Plat S-41-21 Applications Submitted: October 11, 2021
- S-41-21 Application Withdrawn: October 15, 2021
- Application Incomplete: October 15, 2021
- Application Complete: October 22, 2021
- Notice of Planning Board Public Hearing:
 - Posted On-site: September 27, 2021
 - Mailed: October 29, 2021
 - Internet: October 29, 2021
 - Published: October 29, 2021
- Planning Board Agenda Meeting: Meeting Not Held
- Planning Board Preliminary Forum: November 18, 2021
- Town Council Agenda Meeting: December 8, 2021
- Town Council Regular Meeting: December 14, 2021

B. Process of Review:

The procedures for review and approval of a Special Use Permit, per UDO §2.21 establishes a process and standards to approve certain uses that, because of unique characteristics or potential impacts on adjacent land uses, are not permitted in zoning districts as a matter of right.

C. Criteria and Standards for Review:

The criteria for review for this Conditional Use Permit application submittal and approval are as follows:

- Special Use Permit UDO §2.21.7 (A-F)
- Office/Service Zoning District Standards UDO §3.5.11
- Residential Mixed Housing RM-2 Zoning District Standards UDO §3.5.7
- Watershed Protection Overlay District Standards UDO §3.6.8
- Urban Transition Highway Corridor Overlay Standards UDO §3.6.5 (UTHCO)
- Multi-Family Development Standards UDO §4.10.8
- Various Standards UDO Chapter 4

D. Staff Comments:

Compliance with the UDO:

i. Compliance with Special Use Permit – UDO §2.21.7 (A-F):

A special use is permitted only if the applicant demonstrates that:

- A. *The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;*

Tract 1 is in the OS – Office / Service zoning district. The applicant is proposing the multi-family land use falls under land use code 1151 and is an allowed land use only after approval of a Special Use Permit. The applicant is also proposing Finance and Insurance, Real Estate Services, Intellectual Property Rental, Business, Professional, Scientific, Technical and Administrative services office land uses as allowed in the OS zoning district on this tract. The office/service land use is only allowed on a .91 acre outparcel located on Tract 1. Tract 2 is in the RM-2 – Residential Mixed Housing zoning district. The applicant is proposing multi-family on this tract.

The OS zoning district development standards are as follows:

Maximum Height	35'
Front Setback	15'
Side Setback	20'
Rear Setback	20'
Lot size for 1 DU	10,000 sq. ft.
Additional Lot size per Additional DU	3,600 sq. ft.

The RM-2 zoning district development standards are as follows:

Maximum Height	40'
Front Setback	25'
Side Setback	10'
Rear Setback	30'
Lot size for 1 DU	10,000 sq. ft.
Additional Lot size per Additional DU	6,000 sq. ft.

Because the subject properties are located in the Urban Transition Highway Corridor Overlay, the applicant is required to comply with these overlay standards:

Maximum Height	35'
Building Setback	75'
Parking Area Setback	50'
Landscape Buffer	50'
Side and Rear Yard Buffer	50'
Maximum Built Upon Surface	65%
Maximum Building Footprint	30%

The applicant has provided setbacks in the zoning information box on the site plan that reflect the OS and RM-2 zoning district standards above. The applicant also shows on the site plan drawing

they are meeting the Urban Transition Highway Corridor Overlay Standards. The applicant must meet the UTHCO zoning standards and is compliant with setback and buffer standards other than the RM-2 property located to the west of West Vermont Avenue. The applicant has provided in the property information box that they have a total of 48.4% impervious and stated at the Planning Board Regular Meeting that they have 15.5% building footprint coverage of the 30% allowed.

Because the applicant has provided that they will not be requesting a rezoning, the OS Tract and the RM-2 Tract are two separate pieces of property, if these properties have not been combined into whole tracts they must be before moving to site plan approval.

Tract 2 must provide a 50' buffer along the northwestern lot line because this property is within the UTHCO.

Tract 1 fully combined will be 22.85 acres for a total of 995,346 square feet with a total of 274 DU allowed.

Tract 2 fully combined will be 2.56 acres for a total of 111,514 square feet with a total of 17 DU allowed.

Tract 1 contains a .91 acre outparcel for a proposed office development. These 39,640 square feet must be removed from the total 995,346 square feet because this acreage cannot be counted toward the allowed multi-family density and then also be counted toward the future office development. Therefore, removing the .91 acre from the total square feet would decrease 11 DU from the total 274 allowed on Tract 1. The new total of DU allowed would be 263 DU for Tract 1.

Tract 1 has 263 allowed DU and Tract 2 has 17 allowed DU for a total of 280 DU combined. The applicant is requesting 276 DU. The applicant generally appears to be compliant with density.

The total minimum parking required for the multi family land use totals 497 parking spaces. This total is reached by following the minimum number of required parking spaces table found in the UDO, Exhibit 4-6. The applicant is requesting to provide 554 parking spaces. The subject property falls within the UTHCO and the HCO sets a maximum parking standard. This standard however considers square footage of a building, and does not follow the calculations found in Exhibit 4-6.

A watershed protection permit would be granted with this application. The watershed protection permit that has been submitted is to allow up to 70% impervious surface. Because this property is within the UTHCO the maximum of impervious allowed is 65% and therefore the correct amount of impervious allowed for this project will be 65%.

- B. The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;*

The subject properties are currently wooded and are located on the service road adjacent to US 1 Highway to the North and West. To the East of the properties borders the well-established RM-2 neighborhoods, Village in the Green and Village in the Woods and Village by the Lake. To the South are more RM-2 lots. The mixed-use residential office development may offer a transition from the RM-1 neighborhood to the highway and does not appear to planning staff to injure property in the immediate vicinity in a manner like some other more intensive land uses. This type of growth and change may be less impactful to the quality of the existing neighborhood and maintains compatible scale and intensity of development. Planning staff finds that the applicant appears to be generally consistent with these criteria. Planning staff does recommend that Town Council should carefully consider testimony provided at the public hearings and compare and contrast that testimony with staff's review of the application in evaluation of consistency with the standards.

- C. Adequate public facilities shall be provided as set forth herein;*

The subject property has access to public sewer and water.

- D. The proposed use shall not impede the orderly Development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;*

The development provides open space, buffers and appropriate building scale. The mixed use residential and professional office development is located along the highway corridor and provides for compatibility by being a transition within the Office Services zoning district and a single-family residential zoning district. The RM-2 zoning district is completely compatible with the surrounding RM-

2 zoning district and adheres to the district development standards. The applicant appears to be generally consistent with these criteria.

- E. The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare;*

The scale, orientation and intensity of buildings appears to planning staff to be compatible with adjacent development and will help to minimize negative visual, noise and traffic impacts of the highway. Of all the uses possible for the OS and RM-2 zoning districts, the proposed mixed use residential and office uses accommodate a mix of housing and non-residential development required to serve this neighborhood. The applicant appears to be generally consistent with these criteria but the Town Council should carefully consider testimony provided at the public hearings and compare and contrast that testimony with staff's review of the application in evaluation of consistency with the standards.

- F. The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use*

The proposed mixed-use residential and office development may be of more benefit to the surrounding neighborhood than other land uses allowed in the current Residential and Office Services zoning districts. The proposed development is generally compatible with the public interest and welfare based on the current zoning. The applicant appears to be generally consistent with these criteria. Town Council should carefully consider testimony provided at the public hearings and compare and contrast that testimony with staff's review of the application in evaluation of consistency with the standards.

ii. Compliance with Multi-Family Development Standards, UDO §4.10.8:

The development standards in this section may be modified pursuant to a PD or Special Use Permit approval per UDO §4.10.8 (A)(3).

- A. The application appears to be generally compliant with the standards as found in Section A, *applicability*, of the multi-family development standards found in UDO §4.10.8
- B. The applicant has deviated from (B) (3) and has stated they are unable to place dwellings in locations that face each other across common landscaped spaces with buildings no closer than 30'. UDO §4.10.8 (B) (3) states: *where practical, dwellings should be located to face each other across common landscaped space with buildings no closer than 30 feet.*

- C. The applicant has deviated from (C) (2) and has stated they are unable to group the buildings in clusters.
UDO §4.10.8 (C) (2) states: *group buildings in clusters.*
- D. The application appears to be generally compliant with the standards as found in Section D, *pedestrian improvements*, of the multi-family development standards found in UDO §4.10.8.
- E. The applicant has deviated from (E) (2) and has stated they are unable to provide parking that does not separate dwelling units from common open space.
UDO §4.10.8 (E) (2) states: *to the greatest extent practicable, parking shall not separate dwelling units from common open space.*
- F. The applicant has deviated from (F) (3) and has stated they are unable to configure common open space in square areas with sides of at least 100'.
UDO §4.10.8 (F) (3) states: *common open space shall be configured in square or nearly square areas with sides of at least 100'.*
The applicant has deviated from (F) (6) and has stated they are unable to provide play areas within a five (5) minute walk from each dwelling unit.
UDO §4.10.8 (F) (6) states: *for developments with more than 20 dwellings, provide on-site; well equipped and challenging play areas for school age children within a five (5) minute walk from each dwelling unit. (a) provide places for school age children to sit. (b) where possible include a space for ball games on site (minimum 80 feet x 40 feet.)*
The applicant has deviated from (F) (6b) and has stated they are unable to provide a space for ball games on the site. SEE ABOVE.

Staff has evaluated the comments provided from the applicant explaining their reason to deviate from the above standards and has determined that because of the shape of the subject property the applicant would be unable to meet the above standards and their request to deviate seems reasonable. Also, the verbiage in (B) (3) and (E) (2) are relative and are not absolute standards.

iii. General Staff Comments

- The subject property is within the High-Quality Watershed and will need has stated they are unable to 5/70 exemption, which they have requested with this Special Use Permit application. The maximum built upon surface is regulated to 65% in the Urban Transition Highway Corridor Overlay.
- The applicant is required to apply for a sign permit with the Town of Southern Pines if they propose signage.
- The applicant shall meet all applicable landscape, parking, lighting and building design requirements found in Chapter 4 of the UDO.

- This development will be subject to permitting through the Inspections Department and will be required to submit for site plan review. All state level development regulation and the applicable development regulations in the Unified Development Ordinance (UDO) must be met prior to site plan approval.

E. Outside Agency Comments:

A request for comments from agencies was emailed to representatives of the Town of Southern Pines Engineering, Streets, Utilities, Fire and Recreation & Parks Departments as well as representatives of the North Carolina Department of Transportation, U.S. Fish and Wildlife Service and the Regional Land Use Advisory Commission. Any comments received after the publishing of this report will be forwarded to the Planning Board at the public hearing as an exhibit.

- Comments from the Department of Transportation were received on October 27, 2021. The comments state as follows:

SUBJECT: US 1 Multi-Family
Traffic Impact Analysis

Dear Mr. Fluitt:

Thank you for submitting the updated Traffic Impact Analysis for the subject development. The preliminary site plan and traffic impact analysis have been reviewed by District Staff, Division Staff, and Congestion Management in accordance with the Policy on Street and Driveway Access to North Carolina Highways. Based upon our review we offer the following comments for the subject access as it relates to access to NCDOT maintained roadways:

Note: Comments contingent upon the developer's proposed roadway improvements along the NE US 1 Service Road as detailed on Figure 2.2 Site Plan in the Analysis.

US 1 at US NE Service Road Access

- Provide an exclusive right-turn lane on northbound US 1 with 75 feet of storage and appropriate taper.

US 1 NE Service Road at Site Driveway #1, #2 and #3

- We agree with the TIA recommendations for the striping of the US 1 NE Service Road as indicated in the Analysis.

US 1 NE Service Road at US 1 NE Service Road Access

- We agree with the TIA recommendations to operate the eastbound approach (US 1 NE Service Road Access) as a free-flow movement with stop-control on both the northbound and southbound approaches.

Please incorporate the above comments into your planning. When the above comments have been addressed, please submit a driveway permit along with any necessary encroachment agreements to this office for review. Also, please be aware that future site expansion may result in further roadway improvements being required by the Department. If further information is needed, please advise.

Sincerely,



Matthew W. Kitchen, PE
District Engineer

CC: Patrick Norman, PE
B.J. Grieve, Town of Southern Pines
John Grant, PE
David Willett
Josh Brooks, PE
File

Revised comments have been attached and are a part of the TIA for the revision proposed by the applicant.

- Comments from the Regional Land Use Advisory Commission were received on October 28, 2021. The comments state as follows:
October 25, 2021 Following a review of the above referenced Special Use Permit and Major Subdivision by the RLUAC staff and Board of Directors for the properties listed above, and recognizing that our findings are non-binding on the Town of Southern Pines, the RLUAC Board of Directors finds that:
The issues of concern noted in the previous review of this project, prior to amendment and resubmission, are incorporated herein (see review letter dated October 6, 2021 for cases SU-01-21 and S-34-21). In reviewing the revised site plan, it is noted that a larger contiguous open space area is preserved on the northern part of the site in the current proposal. Based on the previously noted concerns, the reconfiguration of the site plan in this manner should produce a net positive outcome as compared to the previous plan, as this will allow for the preservation of a larger area that is currently forested with mature pines. This, in turn, better aligns the proposed development with the land protection goals of the Fort Bragg Compatible Use Rating System.
Thank you for allowing RLUAC to review this case.
John K. McNeill, Chairman Vagn K. Hansen II, AICP, Executive Director
- The Technical Review Committee at its November 9, 2021 meeting discussed the SU-02-21 project. Below are the comments received from the Town Engineer:

An updated TIA has been received and reviewed for this project. The TIA adequately addresses the requirements found in UDO §4.12 Transportation/Traffic Analyses. I do note that the TIA assumes new traffic will utilize the service road to bring traffic back towards Downtown. The requirement to coordinate the development with surrounding streets as noted in UDO §4.11.6. would redistribute traffic in a different manner, but it is my opinion that the analysis would not be impacted. The studied intersections all exceed the minimum level of service and the change in traffic distribution only changes which movements have to occur but not the total number of movements. The development currently proposes to connect to the existing sidewalk along W. Maine Avenue. The existing section of sidewalk only extends 1 block to N. Hale Street and does not connect to any other portion of the Town's existing pedestrian network. A connection to the existing sidewalk network is recommended and the nearest connection would be at the intersection of N. Hale Street and W. Vermont Avenue.

V. ATTACHMENTS:

The following materials are provided as attachments to this staff memorandum:

1. Attachment A: Draft Findings of Fact
2. Special Use Permit Application
3. Special Use Permit Narrative
4. Special Use Permit Justification
5. Compliance with CLRP Narrative
6. Multi-Family Development Standards Narrative
7. Patrick's Pointe Justification
8. Existing Conditions Plan and Site Plan
9. TIA

VI. TOWN COUNCIL ACTION:

To either approve or deny a Special Use Permit application, the Town Council shall make findings of fact and conclusions to the applicable standards. The Town Council shall first vote on whether the application is complete and whether the facts presented are relevant to the case. The Town Council shall then vote on whether the application complies with the criteria as set forth in Section 2.21.7(A-F) Criteria for a Special Use Permit. The Town Council may choose one of the following motions or any alternative they wish:

I move to:

1. Adopt Attachment "A" of the staff report as our Findings of Fact regarding the proposed Conditional Use Permit SU-02-21.

2. Adopt Attachment “A” of the staff report as our Findings of Fact regarding the proposed Conditional Use Permit SU-02-21 with the following changes_____.

Next, the Town Council may vote on whether to approve, deny or approve with conditions the proposed Special Use Permit. The Town Council may choose one of the following motions, or any alternative they wish:

I move to:

1. Approve of the Special Use Permit SU-02-21.
2. Deny of the Special Use Permit SU-02-21
3. Approve the Special Use Permit for SU-02-21 with the following additional conditions....

ATTACHMENT “A”
Draft Town Council Findings of Fact
Special Use Permit Application SU-02-21

Finding of Fact #1:

The Town Council finds that the application is complete and that the facts submitted are relevant to the case because the request for Special Use Permit approval has met the specified submittal requirements as required in the Town of Southern Pines UDO Appendices and the evidence submitted was sworn testimony by qualified experts or provided through substantiated documentation.

Finding of Fact #2:

The Town Council finds that the application complies with UDO §2.21.7 Criteria for a Special Use Permit, Criteria A, C and D and finds that the application does not comply with UDO §2.21.7 Criteria for a Special Use Permit, Criteria B, E and F in that:

A. The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;

1 The Town Council finds that the application SU-02-21 complies with all regulations of the
2 OS, RM-2 and UTHCO zoning districts development standards. The applicant is allowed
3 554 parking spaces and granted the watershed protection permit for 65% impervious
4 coverage.

B. The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;

5 The Town Council finds that the density, scale and use appear to be incompatible with the
6 surrounding neighborhood.

C. Adequate public facilities shall be provided as set forth herein;

7 The Town Council finds the subject properties have access to and can be served by TOSP
8 public facilities.

D. The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;

9 The Town Council finds that the proposed development is consistent with the existing
10 zoning standards. The mixed use residential and professional office development is located
11 along the highway corridor and provides for compatibility by being a transition within the
12 Office Services zoning district and multi-family residential zoning district.
13

E. The establishment, maintenance or operation for the proposed use shall not be detrimental to or endanger the public health, safety, comfort, or general welfare; and

14 The Town Council finds that in regards to safety and the addition of 2100 daily trips that
15 will be generated from this project, the following issues,

- 16 o There is no acceleration lane on Route 1
 - 17 o There will be increased traffic on side streets
 - 18 o The northern portion of the Service Rd is not going to be improved
 - 19 o There are currently school bus safety issues and will only become worse
- 20 are not just potential impacts to the neighborhood but they will impact US 1, Midland Road,
21 Pennsylvania Avenue and Saylor Street.

F. The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use;

22 The Town Council finds that there were a large number of residents that border this
23 property that were concerned that the quality of their life and impact on the surrounding
24 neighborhood would adversely affect them. They do not believe that the public interest
25 and welfare supporting the proposed use outweighs the interests of the residents that
26 showed up and stated their concerns at the hearing.



Special Use Permit Application

Fee: \$ _____

Date Paid: _____

Case No.: CU- _____

Project Information:

Street Address: EAST OF US HIGHWAY 1 BETWEEN W. VERMONT AVE & W RHODE ISLAND AVEPIN: 858214321933; 858217214672; 858217213440Parcel ID: 00039174; 00032830; 00032829Site Size: 25.4 ACRESZoning: OS, RM-2

Applicant:

Name(s): 1700, LLC C/O LOGAN BURNETTEmail: LBURNETT@VOLTAGLOBAL.COMPhone: 305-428-6504Mailing Address: 2601 SOUTH BAYSHORE DRIVE, 17TH FLOOR MIAMI, FL 33133

Authorized Agent, if different from Applicant:

Name(s): KOONTZ JONES DESIGN C/O ROBERT KOONTZEmail: BKOONTZ@KOONTZJONES.COMPhone: 910-684-8487Mailing Address: 150 S PAGE STREET SOUTHERN PINES, NC 28387

Legal Property Owner(s), if different from Applicant:

Name(s): FRANCIS T MASER, TRUSTEEEmail: FMASER@GMAIL.COMPhone: 910-528-7649Mailing Address: PO BOX 1133 SOUTHERN PINES, NC 28388

8-27-21

TO THE TOWN OF SOUTHERN PINES PLANNING BOARD AND TOWN COUNCIL:

I, the undersigned, do hereby make application to and petition the Planning Board and Town Council to grant a Special Use Permit as required by the Town of Southern Pines Zoning Ordinance. The following information is submitted in support of this application:

The property which is the subject of this application is located on the EAST side of US HIGHWAY 1 (St./Ave.), between W. VERMONT (St./Ave.) and W RHODE ISLAND (St./Ave.). The property has a frontage of 2930 feet and a depth of 650 feet.

The special use sought is based upon Section(s) 2.21; 3.7.2 of the **Town of Southern Pines Unified Development Ordinance**. The proposed use of the property is as follows:

TO DEVELOP MULTI-FAMILY RESIDENTIAL UNITS AND AN OFFICE OUTPARCEL

Date: 9/13/2021

DocuSigned by:
Logan Burnett
CDD528B5FF74493...

Applicant

PLANNING DEPARTMENT
TOWN OF SOUTHERN PINES
plan@southernpines.net (910) 692-4003 www.southernpines.net

8-27-21

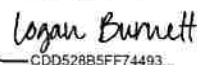
APPOINTMENT OF AGENT

The undersigned owner(s), 1700, LLC, hereby appoint(s) KOONTZ JONES DESIGN as the exclusive agent for the purpose of making an application to the Town of Southern Pines for a Special Use Permit on the property described in the attached application. The owner(s) hereby agree that this agent has the authority to act for and on behalf of the owner(s) as follows:

1. to submit an application and required supplemental materials;
2. to appear at public meetings and give representation and comments on behalf of the owner(s);
3. to accept conditions or recommendations made by the Town of Southern Pines Planning Board and Town Council for the issuance of a Special Use Permit on the subject property; and
4. to act on behalf of the owner(s) without limitations with regard to any and all things directly or indirectly connected with or arising out of any application for a Special Use Permit under the Southern Pines Unified Development Ordinance.

This Appointment of Agent shall remain in effect until final resolution of the attached application.

Signed this 13th day of September, 2021.

DocuSigned by:

CDD528B5FF74493...

Property Owner

Property Owner


Agent

8-27-21

APPOINTMENT OF AGENT

The undersigned owner(s), FRANCIS T. MASER, hereby appoint(s) KUOMTZ JAMES DESIGN as the exclusive agent for the purpose of making an application to the Town of Southern Pines for a Special Use Permit on the property described in the attached application. The owner(s) hereby agree that this agent has the authority to act for and on behalf of the owner(s) as follows:

1. to submit an application and required supplemental materials;
2. to appear at public meetings and give representation and comments on behalf of the owner(s);
3. to accept conditions or recommendations made by the Town of Southern Pines Planning Board and Town Council for the issuance of a Special Use Permit on the subject property; and
4. to act on behalf of the owner(s) without limitations with regard to any and all things directly or indirectly connected with or arising out of any application for a Special Use Permit under the Southern Pines Unified Development Ordinance.

This Appointment of Agent shall remain in effect until final resolution of the attached application.

Signed this 9th day of September, 2021.

Francis T. Maser Trustee
under the Francis T. Maser
Revocable Trust dated 1/1/2014
Property Owner

Property Owner

[Signature]
Agent

8-27-21

**PATRICK'S POINTE
SPECIAL USE PERMIT NARRATIVE**

The development of the property described as the US 1 Village in the submitted exhibits is planned to be a new infill community within the existing downtown area of Southern Pines. The +/- 25.41 site located off of US Highway 1 and at the end of West Rhode Island Avenue is comprised of one large tract ("Tract 1") and one smaller, adjacent tract ("Tract 2"). Tract One is approximately 22.85 acres and is zoned Office/Service (OS). Tract 2 is approximately 2.56 acres and is zoned RM-2. The combined tracts are comprised of approximately 25.41 acres (the "Combined Tract"). Applicant does not propose any rezoning of the Tracts but merely seeks a conditional use permit for the Combined Tract, known as "Patrick's Pointe," that will allow the combination of multi-family uses along with office and service uses. Under the Southern Pines Unified Development Ordinance (the "UDO"), the OS zoning district is intended to "accommodate office and service uses as well as medium-density residential uses", which includes multi-family uses, as stated in Section 3.5.11 of the UDO. The RM-2 district accommodates single-family, single-family attached, and multi-family residential units. The underlying density on the project permits up to 291 residential dwelling units on the property and/or up to +/- 254,000 sf of office uses on the property, using a 10,000 sf per acre planning rule of thumb.

This conditional use permit application proposes 276 multi-family residential units and a +/- 0.91-acre office parcel. The development will meet the development standards for OS and RM-2 district projects as well as supplementary standards for multi-family development established in the Town's UDO, with modifications described in Exhibit D of this application. Adequate parking will be provided on site to meet UDO standards for multi-family and office uses. The main entrance to the site will be provided near the US 1 access location. The existing gravel service will be paved to NCDOT standards from the emergency access location on the north side of the property and tie back to West Connecticut Avenue. This street will be turned over to NCDOT and become a publicly maintained street. Access from US 1 and the public service road will provide the only vehicular access to the site. Pedestrian access gates will be provided at West Rhode Island Avenue and West Maine Avenue to allow residents to connect to the neighborhood street and pedestrian network for walking and biking to downtown Southern Pines. Sidewalks to downtown are available along West Vermont Avenue.

The multi-family development will consist of a total of 276 residential units with many shared amenities. These amenities will include a swimming pool, clubhouse building, children's play area, dog park and other park spaces. The property falls within a high-quality watershed and there is no floodplain. As a result, a watershed protection permit application has been submitted to allow for increased impervious surface and allow up to 70% impervious surface. Overall impervious surface to be developed on the property will fall well below the permitted 70%. Impervious surface and will not exceed 60%. This site is a residential infill location in the downtown of Southern Pines. Increased impervious surface in infill locations for residential development is consistent with the Towns Comprehensive Long-Range Plan (CLRP). See Exhibit C for additional information related to compliance with the CLRP.

Design elements for the project are described below.

- **Pedestrian Connectivity**

- Pedestrian connectivity will be provided throughout the community. Pedestrian access gates will be provided at West Rhode Island Avenue and West Maine Avenue to allow residents to connect to the neighborhood street and sidewalk network to walk and bike to downtown Southern Pines. The property is five (5) blocks from Broad Street and the West Maine Avenue and West Rhode Island Avenue gate connections are in close proximity to sidewalk connections on West Vermont Avenue, which lead downtown.

- **Parking Areas**

- The multi-family residential buildings will have surface parking at a ratio that meets the UDO standards. These standards are as follows from Section 4.5 of the Town's Udo:

Land Use	Minimum Vehicle Parking Spaces	Minimum Bicycle Parking Spaces
Multi-Family		
0-1 bedrooms	1 space per Dwelling Unit plus 1 space per 5 Dwelling Units for visitors	1 space per 10 Dwelling Unit
2-3 bedrooms	2 spaces per Dwelling Unit plus 1 space per 5 Dwelling Units for visitors	
4 or more bedrooms	2.5 spaces per Dwelling Unit plus 1 space per 5 Dwelling Units for visitors	

- Office uses will park per the UDO required standards in Section 4.5 based on the particular type of office use developed. Medical and general office uses park at different ratios per the UDO. The specific office use is yet to be determined for the office outparcel. When a site plan is brought forward and the specific use determined for the parcel, parking per the UDO standards will be provided.

- **Streets and Access**

- The main entrance to the site will be provided off the service road, near the US 1 access location. The existing gravel service road from the US 1 access location will be paved to NCDOT standards and tie back to West Connecticut Avenue. Two secondary access locations will be provided for emergency services along the service road and new pavement will continue to the northernmost emergency access location. Once improved and accepted, this street will be turned over to NCDOT and become a publicly maintained street. Access from US 1 and the public service road will provide the only vehicular access to the site. The main entrance to the property will not be gated, however, a gate may be provided at the emergency access location(s). If these locations are gated, appropriate emergency access controls will be provided as required by the Town of Southern Pines Fire Marshal.

- **Landscaping and Fencing**

- Landscaping will be provided as required by the Town of Southern Pines UDO, including plantings required by the Urban Transition Highway Corridor Overlay District. Much of the site is currently wooded. Due to the topography of the site, many trees within the property boundary will be removed.
- Planting buffers and screening will be provided on adjacent property boundaries where necessary and required by the Town's UDO. Effort will be made to preserve existing trees in the buffer areas of the project. Any tree save in these buffer areas may count toward planting credit as permitted in the UDO.

- **Open Space**

- Multi-family residential development is required to have 10% open space. The development will provide approximately +/- 41.3% (+/- 10.5 acres) open space as indicated on the preliminary plat hatching. This open space will be located in buffer areas, stormwater features, parks and amenity areas throughout the property as indicated on the preliminary plat. While usable open space is not required within the OS district, usable open space has been included for the multi-family in the amenity areas and totals 10% (2.55 acres) of the total open space. This number does not reflect areas with sidewalks and trails that would also be considered usable open space within the community.

- **Buffers/Setbacks**

- Buffers and setbacks will be provided at a minimum per the requirements of the OS district standards and Highway Corridor Overlay District. All setbacks will be met and in many instances the setbacks for the property exceed the required setback requirements. The standards of the overlay district in Section 3.6.5 of the UDO are significantly greater than those of the standard zoning district and are as follows:
 - All US 1 frontage requires a 75' building setback, 50' parking lot setback and 50' landscape buffer. Each of these standards will be met.
 - The OS district requires the following setbacks which will be met:
 - Front = 15'
 - Internal Side = 20'
 - External Side = 15'
 - Rear = 20'

- **Stormwater**

- Stormwater management best practices will be applied on the site as necessary and required to control stormwater runoff throughout the project. All stormwater will be handled on site in a series of ponds, basins or other devices.
- Stormwater devices may be located in buffer areas within the property.

- **Utility Service**

- Adequate water and sewer service can be provided by the Town of Southern Pines to service this development. Utilities are currently within close proximity, along the streets and adjacent properties near the proposed site or located directly on the property. All utilities on the site will be located underground.

- **Architectural Character**

- Multi-family residential units will be designed to fit the character of downtown Southern Pines. Design of the project is intended to blend into the surrounding area and add to the

surrounding neighborhood. It is also intended that the project will be visually appealing from US Highway 1. Materials are intended to be a mixture of brick and cementitious siding material that will blend with other downtown development.

- The project will comply with the Town of Southern Pines architectural standards and must obtain an Architectural Compliance Permit from the Town Council per the UDO. All multi-family and office structures will require approval of the Architectural Compliance Permit.
- **Signage**
 - A single subdivision sign for the multifamily development will be placed at the main entrance from US 1. In addition, a sign for the office outparcel will be provided on the parcel.
 - All signs will indicate the name of the community and/or business. Any additional directional or on-site signage for parking area, parks or amenities will follow the Town of Southern Pines sign standards in Section 4.6 for size, materials, and height.
- **Office Uses**
 - Office uses permitted for the outparcel will include the following, to the extent permitted by right under UDO Exhibit 3-15 (Table of Authorized Land Uses):
 - Finance and Insurance
 - Real Estate Services
 - Rental housing-related
 - Intellectual Property Rental
 - Business, Professional, Scientific, and Technical
 - Administrative Services

The descriptions and conditions described above will apply to the entire project as indicated in the Conditional Use Permit plan document.

EXHIBIT A

Patrick's Pointe Special Use Permit Justification

Below are listed the six (6) criteria required to approve a Special Use Permit application as described in Section 2.21.7 of the Town of Southern Pines UDO. Following the individual criteria is an explanation, indicated in red, describing how the project demonstrates compliance with each of these criteria.

A Special Use is permitted only if the Applicant demonstrates that:

(A) The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;

The property is currently zoned Office Service (OS) and RM-2 and would permit office and service uses as well as multi-family, single-family attached, and single-family detached residential development through a special use permit. Residential uses are permitted under the OS zoning classification at a density comparable to RM-2 density (10-12 dwelling units per acre). This density would allow for 274 residential units to be developed on the OS property (the Large Tract). Up to seven residential dwelling units per acre are allowed by right within the RM-2 zoning district. This density would allow for 17 residential dwelling units on the RM-2 property (the Small Tract). The combined total density for the properties would be 291 total residential units. Multi-family and single-family attached residential units are permitted at the proposed density through a Special Use Permit for the site. The proposed plan includes 276 total residential units, which complies with the regulations of the applicable zoning districts. The proposed development also complies with all other regulations within the UDO related to the OS district and proposed uses except for the supplemental use regulations for multi-family residential units (see Exhibit D for minor deviations). In addition, a +/- 0.91-acre office parcel has been provided on the property which is permitted within OS zoning district. This office parcel would permit for an office building and associated parking and provides for the mix of uses contemplated by the UDO for OS zoning districts.

(B) The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;

All structures will be designed to meet the standards for multi-family and office development described in UDO. Residential development will be designed to be compatible with the existing surrounding townhome residential neighborhood and other homes in the vicinity. Buildings will meet all UDO standards for building height.

Buffers will be placed along property boundaries that are shared with adjacent properties. Every attempt will be made to maintain existing trees throughout the development and especially in buffer areas.

US 1 BOUNDARY: The property falls within a Highway Corridor Overlay District which requires a 75' building setback, a 50' parking area setback and a 40' landscape buffer from US 1. The 40' landscape buffer area will be planted per the Town of Southern Pines landscape standards. To gain additional credit toward the Town's landscape requirements, efforts will be taken to maintain trees in this area as well. All landscaping will meet and/or exceed Town of Southern Pines requirements for landscaping within parking fields.

EASTERN BOUNDARY: Appropriate landscaping will be planted along the adjoining property boundaries on the east side of the property. These plantings will meet the Town's landscaping requirements and screen the development from adjoining properties. Landscape materials will be selected to match the existing area and maintain a natural appearance for the property that is in keeping with the character of the surrounding neighborhood and Southern Pines community. The plan works to transition density from the adjacent (to the east) townhome community by placing

EXHIBIT A

limited building development and large setbacks along the shared property boundary with the Village Green neighborhood. Residential multi-family buildings will act as a buffer and noise barrier to the existing townhome developments.

On page 2.4 of the Comprehensive Long-Range Plan (CLRP) under housing it states “Southern Pines residents recognize the importance and relevance of housing that is diverse, affordable and compatible with the neighborhood in which it is developed. The Town is committed to promoting these housing goals in all areas of the community.” The developer believes that the multi-family residential proposed for this neighborhood offers a variety and diversity of residential products within the surrounding neighborhood and downtown Southern Pines. This variety in housing options allows residents of Southern Pines to make housing decisions that fit their needs and lifestyle. This development is consistent with the context of the surrounding neighborhood and provides a buffer and transition of density from single-family attached, multi-family and other residential development surrounding the property as well as the office parcel located on US 1.

In addition, see the attached Compliance with CLRP Objectives document.

(C) Adequate public facilities shall be provided as set forth herein;

Public water and sewer utilities are readily available for the project, the cost of which will be borne by the developer. Water and sewer lines currently cross areas of the site. Parks, open spaces, trails, sidewalks, and amenities will be provided by the developer for the residents.

The main entrance to the site will be provided near the US 1 access location along the service road. The existing gravel service road from the US 1 access location will be paved to NCDOT standards and tie back to West Connecticut Avenue. Two secondary access locations will be provided for emergency services along the service road and new pavement will continue to the northernmost emergency access location. Once improved and accepted, this street will be turned over to NCDOT and become a publicly maintained street. Access from US 1 and the public service road will provide the only vehicular access to the site. The main entrance to the property will not be gated, however, a gate may be provided at the emergency access location(s). If these locations are gated, appropriate emergency access controls will be provided as required by the Town of Southern Pines Fire Marshal.

(D) The proposed use shall not impede the orderly Development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;

This is an infill project along the US 1 corridor in close proximity to downtown Southern Pines. All properties surrounding this property are zoned RM-2 and permit multi-family, townhome, and single-family detached development at a density of 5-7 dwelling units per acre. In addition, there are several similar parcels along the US 1 corridor that likewise are already zoned as OS and, thus, are likely to have similar office or mixed use improvements. This project will not impede the development of these surrounding properties in meeting their full development potential and meets the standards of the OS zoning district. The plan works to transition density from the adjacent (to the east) townhome community by placing limited multi-family development along the shared property boundary with the Village Green neighborhood and providing multi-family buildings closer to US 1, which will act as a buffer and noise barrier to the new and existing townhome developments. In addition, the residential uses will provide an appropriate transition to the higher intensity office development along US 1.

Patrick's Pointe and the improvements therein will not substantially diminish or impair the property values within the neighborhood.

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(E) The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare; and

This office and residential development will continue the existing development pattern of the surrounding neighborhood, which is all zoned RM-2 Residential Mixed Housing (5-7 dwelling units per acre). This project meets all standards set forth in the Town's CLRP and UDO pertaining to land use and density. Based on the standards set forth in these publicly reviewed and approved documents, this project will not be detrimental to or endanger the public health, safety, comfort, or general welfare of the surrounding neighborhood or downtown Southern Pines. The development incorporates many of the goals of the CLRP.

Traffic volumes will not endanger the residents of the Town of Southern Pines as all vehicular access will be provided to the site via US 1 and the associated service road which connects to Connecticut Avenue. Access to the property will not connect to the surrounding neighborhoods. Low additional traffic volumes on local Town streets will not create any adverse impact on existing neighborhoods or streets.

Project buffers will be provided around the entirety of the property and planted to the Town of Southern Pines standards and requirements. These buffers, due to the projects location within the Highway Corridor Overlay District are significantly increased. This allows for additional screening and setbacks far beyond those required in the adjoining RM-2 Mixed Housing (5-7 dwelling units per acre) zoned properties. These standards protect adjoining property owners from any detrimental impacts.

(F) The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use.

The proposed use and project density have already been established in both the Town of Southern Pines CLRP adopted on March 8, 2016, and incorporated in the Town of Southern Pines UDO under the OS zoning district classification. This proposal does not seek to deviate from the permitted density or uses prescribed in these documents. These documents were developed as a result of many hours of public input, hours of staff review and hours of Town Council deliberation in order to protect the public interest and welfare of the community.

Taking the existing zoning into account, the allowed uses therein and the goals, strategies and vision of the CLRP for this area, the public interests supporting the proposed uses outweigh any individual interests that may be adversely affected by the proposed use.

This project incorporates many goals and objectives of the CLRP and establishes a development pattern that is consistent with these planning and guiding documents. All properties surrounding this development are zoned for multi-family development based on the CLRP and UDO. This proposed office and multi-family development is consistent with these zoning classifications and shall serve as a buffer between the existing multi-family zoned parcels and US 1. The development pattern also meets the land use goals defined by the CLRP as it is an infill project and makes efficient use of the towns existing infrastructure and remaining high density watershed allocation to encourage housing diversity within Southern Pines, near downtown. This housing diversity and efficient use of land will be needed to meet the demands of projected growth of Southern Pines and the surrounding area.

Of the potential uses permitted by the CLRP and the UDO's OS district for this parcel, the proposed residential uses, which buffer adjacent properties, are significantly less intense than most others. Other by-right uses for this zoning district (such as hotels, daycares and private fitness clubs) are more intense, use more acreage, provide less open space, and generate more traffic than the proposed multi-family use and density. All access to this property will be provided via US 1 and the associated service road which will limit traffic impacts and bypass the surrounding neighborhood to the greatest extent possible. Any

EXHIBIT A

connecting utility and roadway infrastructure, including the paving of the NCDOT service road will be extended and connected as necessary by the developer and dedicated to the Town of Southern Pines.

Based on the property's proximity to downtown, residential development and a limited amount of office use is appropriate for the surrounding area and location along US 1. Residents of this development will work, seek entertainment, and shop in downtown Southern Pines. These additional residents will contribute to the character and vibrancy of the downtown center.

EXHIBIT C

Patrick's Pointe Compliance with Comprehensive Long Range Plan Objectives

Below is a list of Comprehensive Long range Plan (CLRP) objectives that the design of this project incorporates into the proposed development. The item identification at the beginning of each objective refers to the item number as referred to in the CLRP goals. Bold text represents the goal of the section as adopted on March 8, 2016.

G-11.Housing. Facilitate the provision of a broad range of housing choices that serve residents of all abilities and incomes.

G-13.Growth. Ensure that services, facilities and land resources accommodate anticipated growth while enhancing the quality of life for Southern Pines' residents.

P-2. Neighborhoods. Ensure that new development and redevelopment are compatible with the overall scale, architectural, transportation and public-space characteristics of the neighborhood in which it occurs.

The addition of multi-family apartments in this location will complement the wide availability of single family housing in Southern Pines, thus achieving the goal of "providing a broad range of housing choices that serve residents of all abilities and incomes." Such housing accommodates anticipated growth and allows for a mixed-use office component to serve the local community. Supply for new residential units is limited in the downtown area and demand for the proposed type of housing proposed is present.

The project's architecture, site design and neighborhood character fits into the surrounding neighborhood and is intended to blend into the Southern Pines vernacular. Elements of building design and scale will be comparable with recently-completed regional projects. All vehicular access will be directed away from the existing neighborhood and toward publicly maintained roadways while pedestrian and bicycle travel will be encouraged throughout the neighborhood and connect to adjoining Town of Southern Pines streets.

The scale of the buildings will be diminished due to site conditions. A large grade cut will be required to place buildings on the site. This cut, coupled with the Town of Southern Pines planting and buffering standards and the site's location within the Highway Corridor Overlay District will create a condition that will screen and buffer the project from adjoining property owners. In addition, the site plan calls for limited development to be placed directly adjacent to the Village Green townhome community, to further act as a transfer of density to US 1 and the office outparcel.

P-12. New Housing Choices. Foster the provision of a mix of housing that meets the financial and physical needs of existing and future residents by encouraging development of a variety of housing types in new residential areas and promoting compatible infill in existing neighborhoods.

The multi-family buildings within the development will be consistent with the Southern Pines vernacular but will also meet the housing needs of future residents by incorporating a variety of housing types. The buildings will use materials consistent with Southern Pines. The mix of residential unit types is appropriate with the surrounding area. Market parameters dictate standards supporting Town's existing vernacular.

P-18. Parks and Recreation. Facilitate access to public and private parks and recreational facilities and activities for residents in new and existing neighborhoods by:

EXHIBIT C

- b. Encouraging development of new public and private facilities in coordination with new development; and

The project will provide for its residents, parks and amenities including open play areas, pool and clubhouse area, shade structure, pocket parks and dog park area as well as internal trails and sidewalks. This reduces the need for the Town of Southern Pines to provide amenities for the residents of this develop. All costs associated with the construction of these amenities will be borne by the developer.

CHAPTER 8 Housing (Page 8-4). Retaining Diverse Housing Options. The Downtown neighborhood offers a diverse mix of housing choices, which are needed to meet the increasingly diverse housing needs of the community. Seniors, who are no longer able or willing to maintain large, single-family lots seek denser housing options by necessity. Millennials, and to some extent, baby-boomers seek mixed-use neighborhoods and attached housing options. This is not to suggest that existing single-family neighborhoods should be rezoned to allow multi-family housing, but it does suggest the importance of retaining existing mixed-density zoning Downtown and promoting mixed-density neighborhoods within new developments.

The plan maximizes the permitted density on the property in a downtown infill neighborhood without a change in zoning classification. The site is part of the existing downtown urbanized area and all utility services are readily available for the site. Proposed density and location maximize urban planning objectives by limiting adverse impact and enhancing neighborhood efficiencies and livability. Higher density in close proximity of the vibrant downtown center area of Southern Pines, provides more residents within walking and biking distance of downtown. More people close to downtown will help maintain its vibrancy as the project's residents seek work, entertainment/dining and shopping options close to home.

The development pattern also meets the land use goals defined in this section of the CLRP as it makes efficient use of the town's remaining high density watershed allocation to encourage housing diversity throughout Southern Pines. This housing diversity and efficient use of land will be needed to meet the demands of projected growth of Southern Pines and the surrounding area.

P-6. Mobility. Enhance mobility options for residents of Southern Pines by:

- a. Ensuring that new neighborhoods and mixed-use centers interconnect with adjoining land uses.

The property provides an interconnected street network within the property and a street connection to US Highway 1 and the service road. The service road connects to West Connecticut Avenue and makes a full vehicular connection to downtown Southern Pines. Sidewalks will be added throughout the development to connect all internal amenities and encourage walking within the community. Pedestrian and bicycle gates located on the eastern property boundary will connect residents with the Town of Southern Pines street grid and promote biking and walking to downtown Southern Pines. This will help facilitate pedestrian and bicycle travel connecting to downtown.

G-8. Mobility. Increase mobility options for residents throughout Southern Pines.

P-6. Mobility. Enhance mobility options for residents of Southern Pines by:

- a. Ensuring that new neighborhoods and mixed-use centers interconnect with adjoining land uses.

EXHIBIT C

- b. Making walking and bicycling safe, convenient and economical transportation alternatives to driving through development of greenways and streets that are

The project's proximity to Downtown Southern Pines encourages walking and biking on the property. Internal sidewalk connections throughout the development encourage residents to walk and bike to amenity areas located throughout the site. Pedestrian and bicycle gates located on the eastern property boundary will connect residents with the Town of Southern Pines street grid and promote biking and walking to downtown Southern Pines.

P-7. Streetscapes. When improving streets and when streets are installed as part of new developments, ensure that the streets:

- b. Employ indigenous landscaping materials in streetscapes and buffers for parking and loading areas to reinforce the natural character of the Town;

It is intended that the development will maintain plants when appropriate and utilize native plants in all areas of the development. Use of native plants will be consistent with the surrounding neighborhood character and promote a project that looks like Southern Pines. Native plant utilization also reduces the amount of maintenance, pruning and irrigation that these plants need for survival. Native plants are more adapted to the local environment and are conditioned to meet the local environmental conditions including drought tolerance, pests and diseases.

G-13.Growth. Ensure that services, facilities and land resources accommodate anticipated growth while enhancing the quality of life for Southern Pines' residents.

P-15. Growth Coordination. To maintain the Town's fiscal integrity and ability to provide public facilities and services in a cost-effective manner:

- b. Ensure that costs of extending services to new development are generally borne by such development, except where cost-sharing is necessary to facilitate or attain larger community goals

All development infrastructure to serve the property (water, sewer, roads) cost will be borne by the developer and dedicated to the Town of Southern Pines. Water, sewer and road infrastructure are all available adjacent to the site.

EXHIBIT D

Patrick's Point Multifamily Development Standards

Below are listed the six (6) multi-family development standards and their subsections from Section 4.10.8 of the Town of Southern Pines UDO. Following the individual criteria is an explanation, indicated in red, describing how the project demonstrates compliance with each of these criteria.

(A) Applicability

- (1) The following Development standards shall apply to all Multi-Family structures in the Morganton Road Overlay district and Multi-Family Developments of ten (10) or more Dwelling Units in any zoning district in which such Dwelling Units are allowed. **These development standards apply to the property as it is more than 10 dwelling units.**
- (2) No Multi-Family Development may include more than ten (10) Dwelling Units, except pursuant to a Planned Development or Conditional Use Permit approval. **This property is seeking a Special Use Permit as permitted by the UDO in the OS zoning district.**
- (3) The Development standards in this section may be modified pursuant to a PD or Conditional Use Permit approval. **The proposed Special Use Permit follows these development standards to the greatest extent possible. Any variations are listed below and permitted as part of the Special Use Permit.**
- (4) In the RM-1 and RM-2 districts, no Multi-Family Residence may be located within two hundred (200) feet of the closest point of any other Multi-Family Residence, unless both structures are part of an integrated complex that includes no more than ten (10) Dwelling Units. **One building is located in the RM-2 zoning district. This building is in excess of 200' from the closest multi-family building. All other buildings within the community are included in the OS district which is not governed by this standard.**

(B) Building Setbacks, Orientation and Lot Standards

- (1) Buildings shall be set back a minimum of ten (10) feet and a maximum of fifteen (15) feet from sidewalks public walkways or street right-of-way. Setbacks may be greater than fifteen (15) feet if the intervening distance consists of common open space. **All multi-family buildings on the property meet this standard. The clubhouse building is setback beyond 15' to allow for additional landscaping area in front of the building.**
- (2) The minimum spacing between the sides of Multi-Family Residential structures shall be twenty (20) feet. **All buildings exceed 20' in separation.**
- (3) Where practical, Dwellings should be located to face each other across common landscaped space with buildings no closer than (30) feet. **Due to the narrow shape of this site, buildings have been placed in a linear fashion for most of the site. Where possible, buildings were across from each other. Most buildings backup to landscape areas and planted buffers. Where possible planted landscape islands have been provided to break up parking areas and add trees/landscaping.**

(C) Building Design. Multi-Family Developments shall:

- (1) Include variations in heights, color, setback, rooflines, trim, and building sizes to create visual diversity between structures; **Architecture will meet these specifications and be reviewed during the submission of the Architectural Compliance Permit.**
- (2) Group buildings in clusters; **Due to the narrow shape of this site buildings are dispersed in a more linear fashion. Buildings are grouped closely together in an effort to share parking and provide additional open space throughout the site.**
- (3) Articulate façades by including projections of at least five (5) feet at least once every fifty (50) feet along the façade, **Architecture will meet these specifications and be reviewed during the submission of the Architectural Compliance Permit.**

EXHIBIT D

- (4) Locate windows to provide easy surveillance of open spaces and walkways, without placing such windows within direct alignment with windows of adjacent structures; **Windows are located on all facades of the building and near walkways in order to allow for surveillance.**
- (5) Units above grade level should have access to private balconies of usable dimensions no smaller than ten (10) feet by six (6) feet; **Architecture will meet these specifications and be reviewed during the submission of the Architectural Compliance Permit.**
- (6) Create areas for foundation planting by keeping hard surfaces away from front façades; **Foundation plantings will be provided between the building and hard surfaces. The dimensions of this area are defined by Section 4.10.8 (B)(1). The clubhouse will be setback beyond this requirement to provide additional landscaping area.**
- (7) Design entrances to.
 - (a) Provide private entrances at grade level and adjacent to private open space to the greatest extent possible. Unless otherwise approved by the Town Council, no more than four (4) Dwelling Units shall share a common entrance. **12 units are served by each breezeway from the ground level through the use of stairs. Each breezeway serves 4 dwelling units on each level of the building.**
 - (b) Avoid aligning doors to separate Dwelling Units with each other unless screening is provided. However, entrances should be visible from the sidewalk or public walkway and other Dwelling Units, when practical. **No entrances are aligned directly with other dwelling units without landscape areas in between the buildings and entrances. All entrances are clearly visible from sidewalks and parking areas.**
 - (c) Provide porches or roofed overhangs over building entrances. **Roofed overhangs will be provided on all breezeway entrances. These entrances will provide focal elements for the building, while breaking up the front façade of the buildings.**
 - (d) Set back buildings or entries so that the entry paths extend at least ten (10) feet from sidewalk or public circulation walkway. These entry areas should be designed to provide semi-public gardens around the front entryways. Do not provide access to apartments via long-shared access galleries. **Entrances are setback as defined by Section 4.10.8 (B)(1). Landscaping is provided in between the sidewalk and building entrance to soften the entrance and create an attractive entrance location.**
 - (8) Provide a private garden, yard, patio or balcony for every Dwelling Unit. **All units in the development will have a private outdoor balcony or patio. Ground floor units will have private fenced patios, while upper level units will have private balconies.**
 - (9) The private open space of all Dwelling Units shall be visually and functionally accessible from inside the Dwelling. **All units will have windows and view the exterior landscaped areas, amenities and park.**
 - (10) Provide screening for yards where private activities are likely to occur and to delimit private from common open space. **Landscaping will be provided in front of all ground floor patios to allow for screening and privacy.**

(D) Pedestrian Improvements

- (1) Provide continuous walkways through the project and connecting Dwellings to and through common open space. **An interconnected network of walkways and sidewalks provide access throughout the community. All units are connected through pedestrian pathways to the park, clubhouse and amenity areas throughout the property.**
- (2) Minimize walkways that provide direct opportunities to cut through the project by strategically locating fences, low walls and planting areas within the site and near site entry points. **The property is proposed to be a private community. Pedestrian connections will be made to the streets surrounding the property, however, these locations will be gated and intended of the use of the residents. All amenities within the development will be private.**
- (3) Provide storage space for strollers, bicycles, and so forth, close to the main entries of Dwellings or groups of Dwellings. **Bicycle storage racks will be provided at the clubhouse and at each building.**

(E) Parking

- (1) Provide parking in small Lots that are designed and located to ensure that most parked vehicles are visible from one (1) or more Dwellings. **Parked vehicles will be visible from each building. Parking areas will be separated and divided by landscaping and parking islands per the Town's UDO.**

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(2) To the greatest extent practicable, parking shall not separate Dwelling Units from common open space. Due to the narrow shape of this site, dwellings are located facing open space areas where practicable.

(F) Open Space

(1) Common usable open space shall comprise ten (10) percent of the total project area. The project has +/- 8.1 acres (32%) of open space and 2.55 acres (10%) of usable open included in the amenity areas as indicated on the preliminary plat included in the submission documents.

(2) Open spaces shall be configured so that the ratio of building height to open space width is in the range of 1:3 or greater. Ratios as tight as 1:2 may be approved if landscaping effectively screens buildings from each other. The open space areas meet these standards.

(3) Common open space shall be configured in square or nearly square areas with sides of at least one hundred (100) feet. Common open space and amenity areas are not configured as square areas as the topography and narrow site area prohibit this configuration. Open space areas are configured to fit the land, work with the topography and work within the plan structure to provide recreation opportunities for the residents of the community. The larger recreation/amenity areas exceed 100 feet on all sides.

(4) To the greatest extent practicable, Dwelling Units shall have access to common open space without having to cross a street. No public streets are provided within the development.

(5) Play Areas

(a) Play areas for young children should be physically separated from potential traffic hazards. The play area is located at the end of the property in a park area. This will allow for children's safety and separate children from vehicular traffic. The sidewalk system throughout the project will connect to this park area.

(b) Provide a variety of hard-surfaces areas in the form pathways that are least five (5) feet wide and small areas off the circulation system for various children's activities. The play area will provide these items.

(6) For Developments with more than twenty (20) Dwellings, provide on-site; well-equipped and challenging play areas for school age children within a five (5) minute walk from each Dwelling Unit. A play area will be provided as described above. Due to the linear nature and topography of this site, a flat area located outside of the main vehicular circulation pattern was identified for the playground. This area also has several large trees that will be maintained to create a shaded play area. Access to this area may exceed 5 minutes from the northernmost building. The clubhouse and pool area, however, are within five minutes' walk of all units. Children of all ages will be permitted to utilize these areas as well as the park area.

(a) Provide places for school age children to sit. Benches and sitting areas will be provided for children and adults.

(b) Where possible include a space for ball games on site (minimum 80 feet x 40 feet). Due to the topography and narrow site a flat area of this size will not be provided. However, the pool and clubhouse will provide a fitness room, theater room, game room and other amenities open to children. This properties proximity to downtown Southern Pines open spaces and parks will permit residents to have ball games if desired.

(7) Provide retaining walls that can also be used for casual seating. Retaining walls or site furniture will be used to provide casual seating.

(8) Where cluster Dwellings are included in a project, ensure some uniqueness for each cluster. Vary the design (size, dimensions, grading, planting, site furniture and play equipment) of the common open spaces of each cluster. This does not apply to this site.

(9) The number of Dwelling Units grouped around common and open space should range between twenty (20) to one hundred (100) Several units are grouped within close proximity of the clubhouse and pool area.

EXHIBIT E

Patrick's Pointe Project Justification

There are many reasons why multi-family and office development at the densities proposed for Patrick's Pointe are justified and appropriate for the Town of Southern Pines. This project's justification statement provides evidence for full approval of the project. As submitted in other Exhibits with the application, the project is clearly justified as it meets many of the goals of the Town of Southern Pines Comprehensive Long-Range Plan (CLRP) and all development standards included in the Unified Development Ordinance (UDO). There are no waivers or modifications to these standards proposed by the applicant within the submission documents. In fact, many of the standards associated with these documents are exceeded by the plan and documentation presented as the preliminary plat. All UDO-required findings associated with the requested SUP and the Preliminary plat are easily met.

The Town of Southern Pines CLRP and UDO standards have been established through a series of public meetings and hearings, hours of staff review, Planning Board deliberation and Town Council deliberation. These documents are established to guide development, written specifically to protect the public interest, health and welfare of the citizens of Southern Pines and provide developers and landowners with a clear understanding of the community's goals prior to investing time, money and effort for a proposed project. As a guide to growth these documents establish many guidelines for development including the following: land uses, density, setbacks, landscaping standards, buffers, buffer planting requirements, required number of parking spaces, parking space sizes, parking lot planting requirements, signage, lighting, open space, architectural standards and many other items specific to development. The proposed project meets all these guidelines, in particular, land use, open space, density, setbacks and buffers.

Of the permitted uses in the OS zoning district, multi-family development is one of the least intense development classifications. This district permits office development, hotels, private fitness centers, daycares, banks, insurance offices, real estate offices, health clinics, medical offices, and many other uses. All these uses are permitted by-right and would involve no public process to develop these types of facilities. Standards for these uses have far lower open space requirements and produce significantly more traffic than multi-family development. Again, based on the zoning classification, these other uses could be permitted today with a simple application to Town Planning and Engineering staff with no public deliberation.

The proposed project has many advantages over the other permitted uses. Multi-family development has a greater requirement for open space. Some of this open space is proposed to be usable open space for the residents. Residential development also generates much less traffic than many of the other permitted uses in the OS zoning district.

In item P-15.a. of the CLRP it states "Favor infill development in areas with access to public facilities over development on the perimeter that requires extension of public utilities". This statement is very important for the future development of Southern Pines and speaks to "Smart Growth" principles and sound planning. Based on the projected population growth of Southern Pines, this statement is even more meaningful and important. Southern Pines is growing and projected to grow substantially over the next several years as indicated by US census data. There are choices as to how this increase in population should be housed. The CLRP and UDO have made it clear that the subject property is intended for higher density development.

Higher density in appropriate locations has many advantages over traditional low density development. From a land use and planning perspective, this site is ideal for higher density residential development. The proximity to Downtown Southern Pines encourages alternate transportation methods for travel to downtown. The project will provide pedestrian and bicycle access gates that connect to the grid of downtown Southern Pines that will enable residents to bike or walk to downtown for shopping, dining, working or to take advantage of the many downtown festivals and events. Residents will not have to cross any major highways or roadways in order to access downtown and can utilize the new bike racks being installed throughout the downtown area.

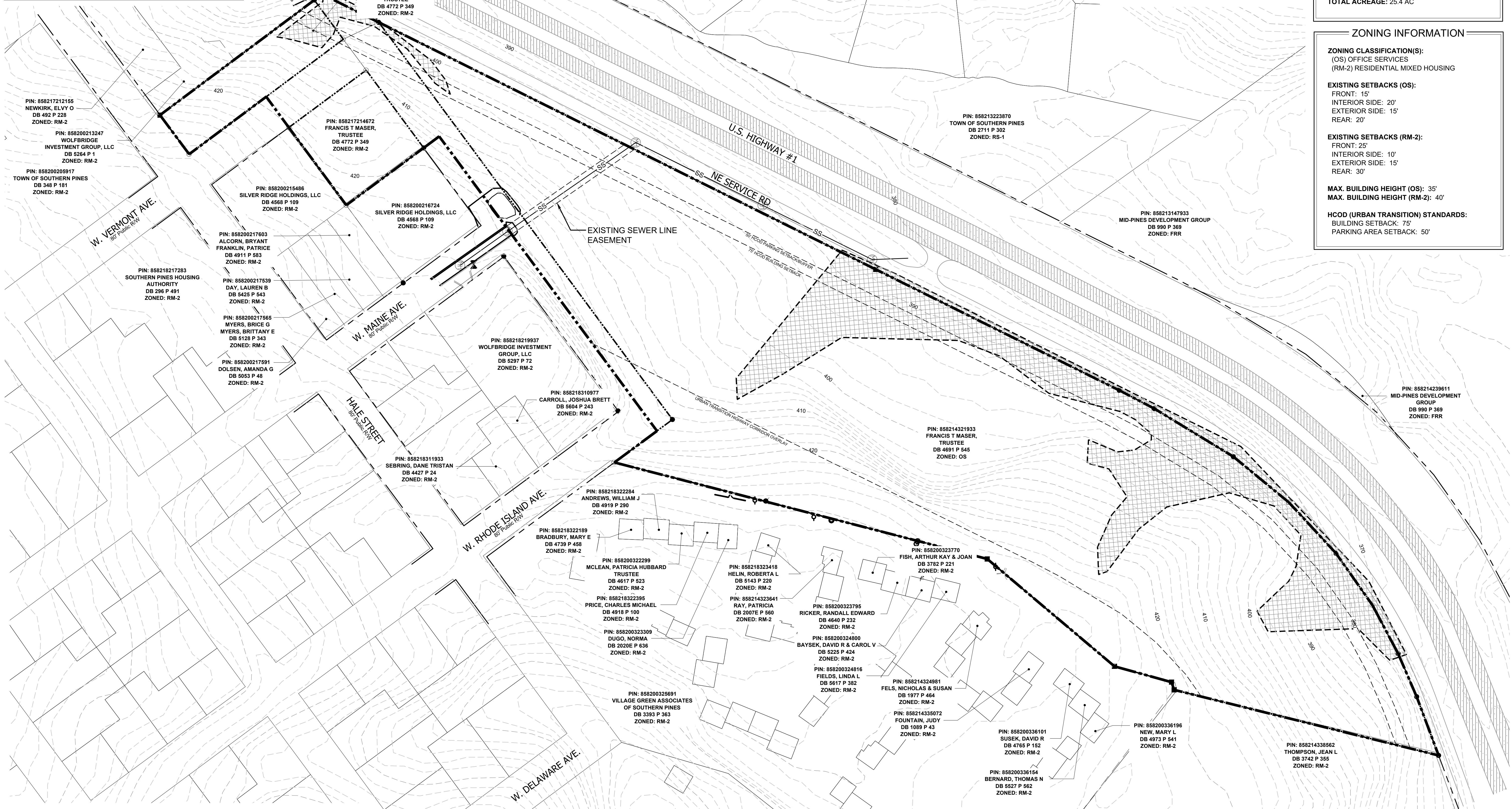
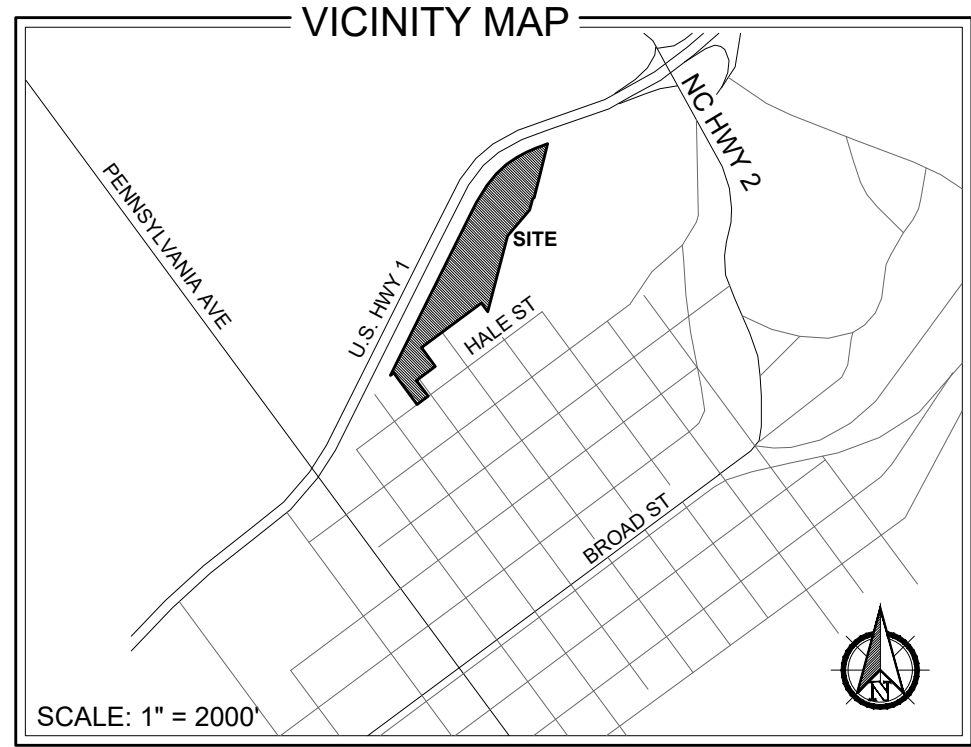
EXHIBIT E

There are many other advantages to higher density on this site. While it may seem counterintuitive, increasing density helps protect local watersheds. The Town of Southern Pines has a limited amount of high density watershed allocation that it can utilize for development. Any development above 24% impervious surface is required to apply for a watershed allocation permit, which allows for development up to 70% impervious surface. If a development exceeds 24% impervious surface, the entire site must be counted toward the high intensity allocation. In this case, the site would require approximately 25 acres of watershed allocation for 276 residential units and an office outparcel. Spread this density over (3) 100 unit projects on 25 acres each and 75 acres of watershed allocation would be required, which reduces the future development potential for the balance of the watershed throughout Southern Pines. Increasing density makes efficient use of the watershed and should be encouraged to protect water resources.

Utility infrastructure efficiency is another advantage of infill development. Water, sewer and roadway infrastructure is readily available for this site and allows for efficient extension, distribution and maintenance of existing utilities. Serving more units with less infrastructure is a clear advantage of this type of development and an important aspect of smart growth development. While the costs of any extensions of utilities and connecting roadways will be borne by the developer, this infrastructure will be dedicated to the Town of Southern Pines and NCDOT for long term maintenance. Limiting the length and amount of public infrastructure to serve the maximum number of units has a positive impact on long term maintenance costs of utility infrastructure.

The proximity of this proposed development to downtown, coupled with “smart growth” principles of reducing watershed impact, reducing utility and roadway infrastructure, as well as the clear intent of the CLRP and UDO to promote this type of development on the site are a clear indication that the proposed development is appropriate. This project requests no modifications or waivers from the standards set forth in the UDO and is strictly prescribed by all guiding documents. This project represents the vision described for the property in all applicable documents. The project, as proposed, meets or exceeds all development standards of the UDO and complies with many of the goals of the CLRP.

Item F of the Conditional Use Permit Justification is as follows: “The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use”. Based on the Town’s guiding documents, CLRP and UDO, this project clearly serves the public interest and welfare, as it asks for no waivers or modifications of the approved development standards. In the submitted exhibits, no modifications to land use, density, setbacks, landscaping standards, buffers, buffer planting requirements, required number of parking spaces, parking space sizes, parking lot planting requirements, signage, lighting, open space, architectural standards, and other items specific to development are requested. Planning concepts presented in the application are consistent with the major planning goals of the CLRP and this project represents sound community planning principles. Community needs with proposed development standards have been clearly defined by the Town’s guiding documents, the CLRP and UDO, and should not be compromised as the Town of Southern Pines looks towards its future.



FLOODPLAIN DATA

THIS PROPERTY IS LOCATED IN FLOOD ZONE 'X' (AREAS OF MINIMAL FLOODING)

THE LOCATION OF THE 100-YEAR FLOODPLAIN PER NFIP FIRM COMMUNITY PANEL(S) NO: 8582 MAP(S): 3710858200J DATE: OCTOBER 17, 2006

CAUTION

THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT DEPICTED ON THESE PLANS. THE LANDSCAPE ARCHITECT AND ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE PROJECT LIMITS. ALL DAMAGE MADE TO THE EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY BY THE CONTRACTOR.

LEGEND

- = OVERALL PROPERTY BOUNDARY
- - - - - = EXISTING MINOR CONTOUR
- - - - - = EXISTING MAJOR CONTOUR
- SS = EXISTING SEWER LINE
- - - - - = EXISTING RIGHT-OF-WAY
- [Hatched Box] = EXISTING WETLAND

PROPERTY INFORMATION

PROPERTY OWNER:
FRANCIS T MASER, TRUSTEE
PO BOX 1133
SOUTHERN PINES, NC 28388

APPLICANT:
1700, LLC
2601 SOUTH BAYSHORE DRIVE, 17TH FLOOR
MIAMI, FL 33133

TOTAL ACREAGE: 25.4 AC

ZONING INFORMATION

ZONING CLASSIFICATION(S):
(OS) OFFICE SERVICES
(RM-2) RESIDENTIAL MIXED HOUSING

EXISTING SETBACKS (OS):
FRONT: 15'
INTERIOR SIDE: 20'
EXTERIOR SIDE: 15'
REAR: 20'

EXISTING SETBACKS (RM-2):
FRONT: 25'
INTERIOR SIDE: 10'
EXTERIOR SIDE: 15'
REAR: 30'

MAX. BUILDING HEIGHT (OS): 35'
MAX. BUILDING HEIGHT (RM-2): 40'

HCOD (URBAN TRANSITION) STANDARDS:
BUILDING SETBACK: 75'
PARKING AREA SETBACK: 50'

PRELIMINARY PLANS - NOT RELEASED FOR CONSTRUCTION (FOR REVIEW ONLY)

KOONTZJONESDesign
LAND PLANNING | LANDSCAPE ARCHITECTURE

150 S PAGE STREET
SOUTHERN PINES, NC 28387
P: (910) 639-4058
W: www.koontzjonesdesign.com

REVISIONS:

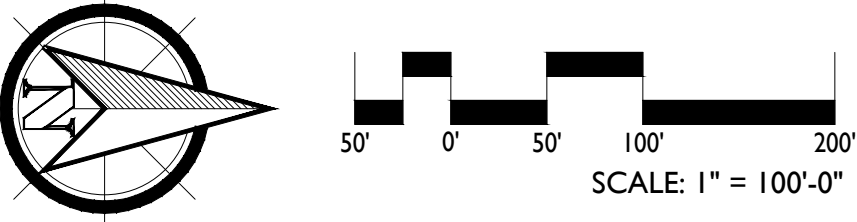
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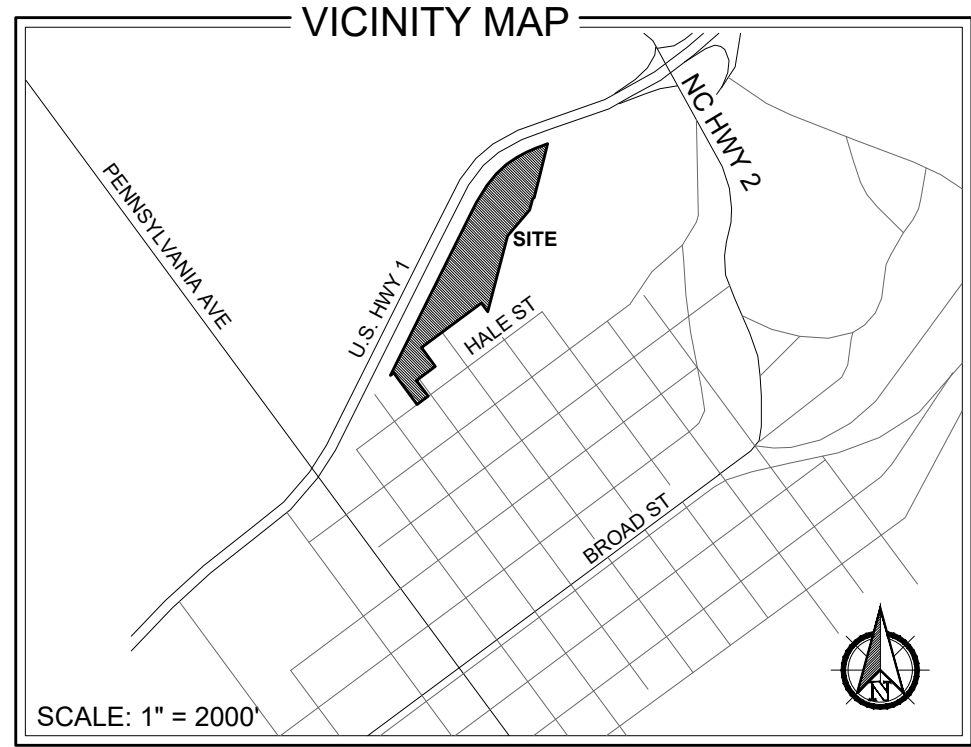
PATRICK'S POINTE
SOUTHERN PINES, NORTH CAROLINA

EXISTING CONDITIONS

DATE: 10-11-2021
DESIGNED BY: REK
DRAWN BY: PJS
CHECKED BY: REK
SCALE: 1" = 100'-0"
PROJECT #:

SHEET NUMBER#:
L-1.0





GENERAL NOTES:

1. DRAINAGE WILL BE RETAINED AND TREATED BY ON SITE STORMWATER MANAGEMENT DEVICES. THE GENERAL LOCATION OF SUCH DEVICES ARE SHOWN ON THIS PLAN. DETAILED STORMWATER MANAGEMENT PLANS WILL BE PROVIDED DURING PERMITTING OF THE DEVELOPMENT AND WILL FOLLOW THE TOWN OF SOUTHERN PINES STANDARDS AND BE APPROVED BY THE TOWN ENGINEER.
2. LIGHTING WILL BE PROVIDED IN ACCORDANCE WITH SECTION 4.8 OF TOWN'S UDO
3. PROJECT SIGNAGE WILL MEET ALL REQUIREMENTS AS ESTABLISHED IN THE TOWN OF SOUTHERN PINES UDO
4. LANDSCAPING WILL BE PROVIDED TO MEET OR EXCEED THE REQUIREMENTS AS ESTABLISHED IN THE TOWN OF SOUTHERN PINES UDO.

FLOODPLAIN DATA

THIS PROPERTY IS LOCATED IN FLOOD ZONE 'X' (AREAS OF MINIMAL FLOODING)

THE LOCATION OF THE 100-YEAR FLOODPLAIN PER NFIP FIRM COMMUNITY PANEL(S) NO: 8582 MAP(S): 3710858200J DATE: OCTOBER 17, 2006

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REAR: 20'

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FRONT: 25'
INTERIOR SIDE: 10'
EXTERIOR SIDE: 15'
REAR: 30'

MAX. BUILDING HEIGHT (OS): 35'
MAX. BUILDING HEIGHT (RM-2): 40'

HCOD (URBAN TRANSITION) STANDARDS:
BUILDING SETBACK: 75' (STREET YARD)
PARKING AREA SETBACK: 50' (STREET YARD)

CAUTION

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LEGEND

- - - - - OVERALL PROPERTY BOUNDARY
- - - - - OUTPARCEL BOUNDARY
- - - - - EXISTING MINOR CONTOUR
- - - - - EXISTING MAJOR CONTOUR
- - - - - EXISTING SEWER LINE
- - - - - EXISTING RIGHT-OF-WAY
- PROPOSED OPEN SPACE
- PROPOSED USEABLE OPEN SPACE

PROPERTY INFORMATION

PROPERTY OWNER:
FRANCIS T MASER, TRUSTEE
PO BOX 1133
SOUTHERN PINES, NC 28388

APPLICANT:
1700, LLC
2601 SOUTH BAYSHORE DRIVE, 17TH FLOOR
MIAMI, FL 33133

TOTAL ACREAGE: 25.4 AC

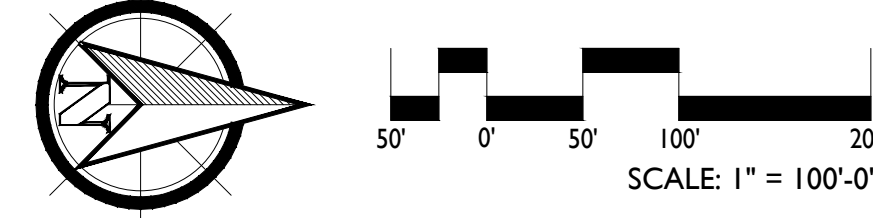
TOTAL UNITS:
276 MULTI-FAMILY UNITS

TOTAL OPEN SPACE: ±10.5 AC (41.3%)
TOTAL USEABLE OPEN SPACE: ±2.55 AC (10%)

REQUIRED PARKING:
-MULTI-FAMILY
1 BEDROOM UNITS (110 UNITS)
-1 SPACE PER UNIT (+1 VISITOR SPACE / 5 UNITS)
= 132 SPACES
2-3 BEDROOM UNITS (166 UNITS)
-2 SPACES PER UNIT (+1 VISITOR SPACE / 5 UNITS)
= 365 SPACES
TOTAL PARKING REQUIRED = 497 SPACES

TOTAL PARKING PROVIDED = 554 SPACES

TOTAL IMPERVIOUS SURFACE: ±12.3 AC (48.4%)



PRELIMINARY PLANS - NOT RELEASED FOR CONSTRUCTION (FOR REVIEW ONLY)

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REVISIONS:

REVISIONS:

PATRICK'S POINTE
SOUTHERN PINES, NORTH CAROLINA

SITE PLAN

DATE: 10-11-2021
DESIGNED BY: REK
DRAWN BY: PJS
CHECKED BY: REK
SCALE: 1" = 100'-0"
PROJECT #:
SHEET NUMBER#:
L-1.1

*Revised
Traffic Impact Analysis*

US 1 Multifamily
Southern Pines, NC

Prepared for:
Volta Global, LLC

Kimley»Horn

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42 of 225

Revised Traffic Impact Analysis for

US 1 Multifamily

Southern Pines, North Carolina

Prepared for:

Volta Global, LLC

Miami, Florida

Prepared by:

Kimley-Horn and Associates, Inc.

NC License #F-0102

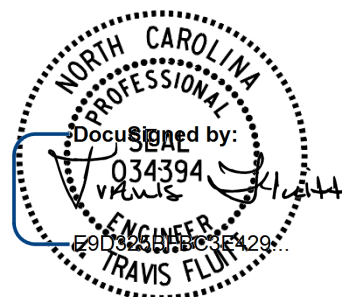
421 Fayetteville Street, Suite 600

Raleigh, NC 27601

(919) 677-2000

October 2021

014362000



10/15/2021

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 and Associates, Inc. has performed a revision to the Traffic Impact Analysis for the proposed US 1 Multifamily project located on the east side of US 1 between Pennsylvania Avenue and Midland Road in Southern Pines, North Carolina. The original report was dated September 17, 2021 and included 256 apartments, 37 townhomes, and 15,000 square feet (SF) of office space. The plan has since been revised to include 276 apartment units and up to 7,500 SF of general office space. Site access will still be provided via three proposed driveways along the US 1 NE Service Road, but Site Driveway #2 will no longer align with the US 1 NE Service Road Access. Although the development is projected to be complete before then, a 10-year horizon of 2031 was used for this analysis.

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 (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

As shown in [Table ES-1](#), the project is projected to generate 2,106 new daily trips, 127 new trips during the AM peak hour, and 127 new trips during the PM peak hour on a typical weekday.

Table ES-1								
ITE Traffic Generation (Vehicles)								
Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
221	Apartments	276	d.u.	2,020	24	69	71	46
710	General Office Building	7,500	s.f.	86	29	5	2	8
Total Net New External Trips				2,106	53	74	73	54

Capacity analyses were performed using Synchro/SimTraffic Version 10 software for the unsignalized intersections. Table ES-2 summarizes the operation of study intersections for the AM and PM peak hour traffic conditions.

Table ES-2 Level-of-Service Summary		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Midland Road at US 1 Northbound Ramps		
Existing (2021) Traffic	EB – B (10.4) WB – C (15.3)	EB – A (9.8) WB – C (14.5)
Background (2031) Traffic	EB – B (10.9) WB – C (19.6)	EB – B (10.1) WB – C (17.8)
Build-out (2031) Traffic	EB – B (11.0) WB – C (21.0)	EB – B (10.1) WB – C (18.4)
Midland Road at Crestview Road		
Existing (2021) Traffic	EB – B (11.7) NBL – A (7.9)	EB – B (11.1) NBL – A (7.8)
Background (2031) Traffic	EB – B (12.5) NBL – A (8.1)	EB – B (11.8) NBL – A (7.9)
Build-out (2031) Traffic	EB – B (12.5) NBL – A (8.1)	EB – B (11.9) NBL – A (7.9)
N Saylor Street at Crestview Road		
Existing (2021) Traffic	NB – A (8.8) WBL – A (7.3)	NB – A (8.7) WBL – A (7.3)
Background (2031) Traffic	NB – A (8.9) WBL – A (7.3)	NB – A (8.7) WBL – A (7.4)
Build-out (2031) Traffic	NB – A (8.9) WBL – A (7.3)	NB – A (8.8) WBL – A (7.4)
N Saylor Street at W Rhode Island Avenue		
Existing (2021) Traffic	EB – A (9.0) WB – A (9.5) NBL – A (7.4) SBL – A (7.3)	EB – A (8.9) WB – A (8.9) NBL – A (7.3) SBL – A (7.3)
Background (2031) Traffic	EB – A (9.0) WB – A (9.5) NBL – A (7.4) SBL – A (7.3)	EB – A (8.9) WB – A (8.9) NBL – A (7.3) SBL – A (7.3)
Build-out (2031) Traffic	EB – A (9.1) WB – A (9.6) NBL – A (7.4) SBL – A (7.3)	EB – A (9.0) WB – A (9.0) NBL – A (7.3) SBL – A (7.3)

Table ES-2 Level-of-Service Summary (cont.)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
N Saylor Street at W Vermont Avenue		
Existing (2021) Traffic	EB – A (9.1) WB – A (9.6) NBL – A (7.3) SBL – A (7.3)	EB – A (9.0) WB – A (9.0) NBL – A (7.3) SBL – A (7.3)
Background (2031) Traffic	EB – A (9.2) WB – A (9.7) NBL – A (7.4) SBL – A (7.3)	EB – A (9.1) WB – A (9.1) NBL – A (7.3) SBL – A (7.3)
Build-out (2031) Traffic	EB – A (9.2) WB – A (9.7) NBL – A (7.4) SBL – A (7.3)	EB – A (9.2) WB – A (9.1) NBL – A (7.3) SBL – A (7.3)
N Saylor Street at Pennsylvania Avenue		
Existing (2021) Traffic	NB – C (17.6) SB – B (12.4) EBL – A (8.0) WBL – A (8.3)	NB – C (19.7) SB – B (14.7) EBL – A (8.6) WBL – A (8.0)
Background (2031) Traffic	NB – C (21.0) SB – B (13.4) EBL – A (8.2) WBL – A (8.5)	NB – C (24.8) SB – C (17.0) EBL – A (8.9) WBL – A (8.1)
Build-out (2031) Traffic	NB – C (22.6) SB – C (17.6) EBL – A (8.2) WBL – A (8.5)	NB – D (26.9) SB – C (22.0) EBL – A (9.0) WBL – A (8.1)
US 1 NB at US 1 NE Service Road Access		
Existing (2021) Traffic	WB – B (12.4)	WB – C (15.3)
Background (2031) Traffic	WB – B (13.4)	WB – C (17.3)
Build-out (2031) Traffic	WB – B (14.0)	WB – C (18.1)
US 1 NE Service Road at Site Driveway #1		
Build-out (2031) Traffic	WB – A (8.9) SBL – A (7.3)	WB – A (8.8) SBL – A (7.3)
US 1 NE Service Road at Site Driveway #2		
Build-out (2031) Traffic	WB – A (8.9) SBL – A (7.3)	WB – A (8.9) SBL – A (7.3)
US 1 NE Service Road at US 1 NE Service Road Access*		
Build-out (2031) Traffic	NB – A (4.0) SB – A (3.8)	NB – A (4.0) SB – A (2.9)
US 1 NE Service Road at Site Driveway #3		
Build-out (2031) Traffic	WB – A (8.6) SBL – A (7.3)	WB – A (8.6) SBL – A (7.3)

The US 1 Multifamily project is proposed to provide three site driveways aligning with US 1 NB Service Road. All site driveways are proposed to be constructed with one ingress lane and one egress lane.

The following improvements are recommended to be performed as part of the proposed US 1 Multifamily development:

US 1 at US 1 NE Service Road Access:

- Construct an exclusive right-turn lane on northbound US 1 with 50 feet of storage and appropriate tapers

US 1 NE Service Road at Site Driveway #1:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

US 1 NE Service Road at Site Driveway #2:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

US 1 NE Service Road at US 1 NE Service Road Access

- Operate the eastbound approach (US 1 NE Service Road Access) as a free-flow movement with stop-control on the northbound and southbound approaches

US 1 NE Service Road at Site Driveway #3:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With the recommended improvements in place, analysis indicates that all study intersections are expected to operate at acceptable levels of service with no queuing issues at project build-out.

Figure ES-1 shows the recommended roadway laneage.

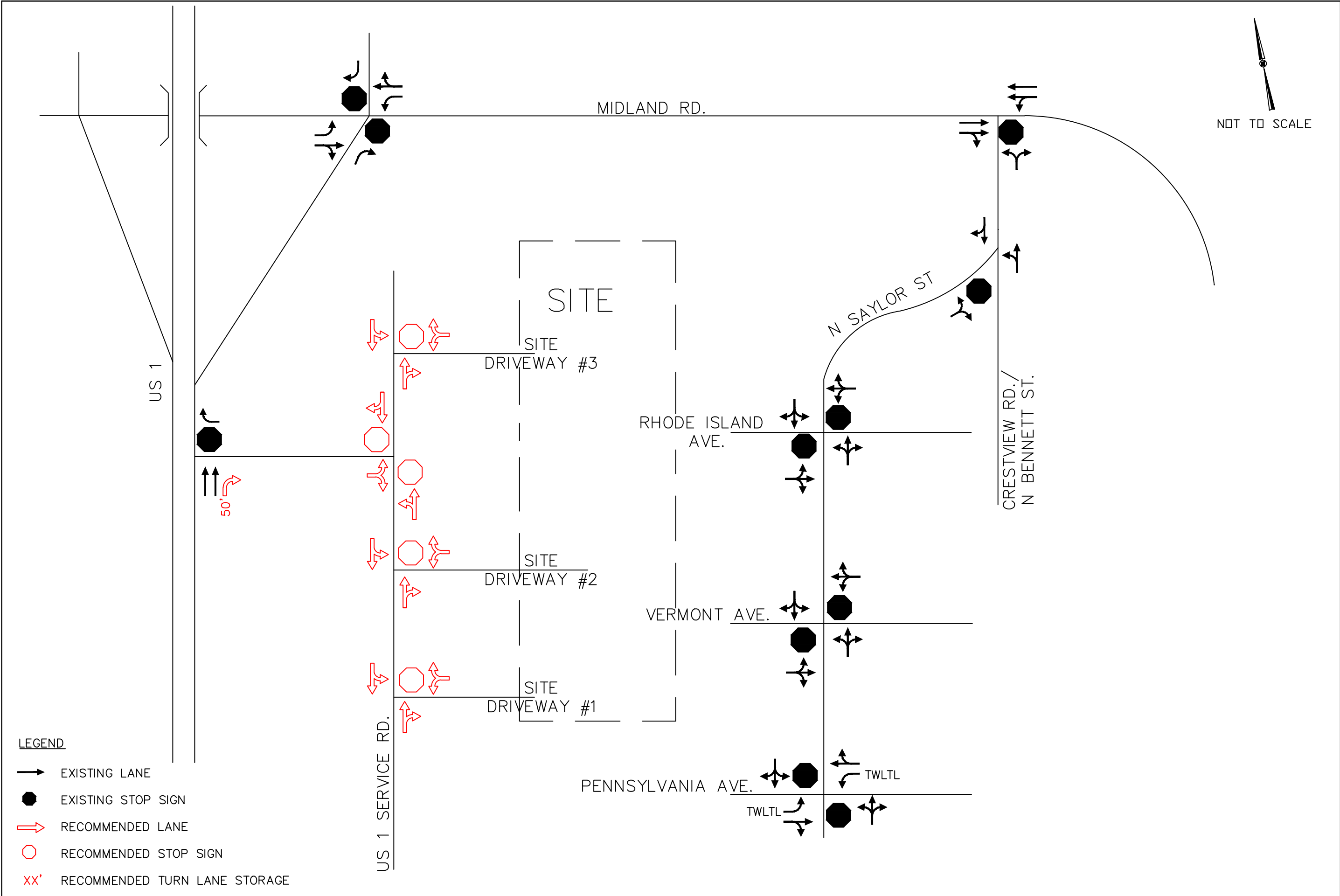


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1.0 Introduction

Kimley-Horn and Associates, Inc. has performed a revision to the Traffic Impact Analysis for the proposed US 1 Multifamily project located on the east side of US 1 between Pennsylvania Avenue and Midland Road in Southern Pines, North Carolina. The original report was dated September 17, 2021 and included 256 apartments, 37 townhomes, and 15,000 square feet (SF) of office space. The plan has since been revised to include 276 apartment units and up to 7,500 SF of general office space. Site access will still be provided via three proposed driveways along the US 1 NE Service Road, but Site Driveway #2 will no longer align with the US 1 NE Service Road Access. Although the development is projected to be complete before then, a 10-year horizon of 2031 was used for this analysis.

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 (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

North Carolina Department of Transportation (NCDOT) and Town of Southern Pines staff were consulted regarding the elements to be covered in this analysis.

2.0 Inventory

2.1 Study Area

The study area for this development includes the following intersections:

- Midland Road at US 1 Northbound Ramps
- Midland Road at Crestview Road
- N Saylor Street at Crestview Road
- N Saylor Street at W Rhode Island Avenue
- N Saylor Street at W Vermont Avenue
- N Saylor Street at W Pennsylvania Avenue
- US 1 NB at US 1 NE Service Road Access
- US 1 NE Service Road at Proposed Site Driveway #1
- US 1 NE Service Road at Proposed Site Driveway #2
- US 1 NE Service Road at US 1 NE Service Road Access
- US 1 NE Service Road at Proposed Site Driveway #3

Figure 2.1 shows the site location, and the conceptual development plan is shown on **Figure 2.2**.

2.2 Existing Conditions

The proposed US 1 Multifamily development is project located on the east side of US 1 between Pennsylvania Avenue and Midland Road in Southern Pines, North Carolina. Roadways in the study area include US 1, Midland Road, Pennsylvania Avenue, Crestview Road, Saylor Street, Rhode Island Avenue, and Vermont Avenue. The existing roadway laneage is shown in **Figure 2.3**.

US 1 is a 4-lane divided highway with a posted speed limit of 55 mph near the study area. The reported 2019 average daily traffic (ADT) volume was approximately 26,000 vehicles per day (vpd) south of Midland Road.

Midland Road is a 4-lane divided roadway with a posted speed limit of 35 mph east of US 1. The reported 2017 ADT volume was approximately 6,500 vpd east of US 1.

Pennsylvania Avenue is a 3-lane roadway with a center two-way left-turn lane (TWLTL) and a posted speed limit of 35 mph. The reported ADT volume was approximately 7,600 vpd east of US 1.

Crestview Road, Saylor Street, Rhode Island Avenue, and Vermont Avenue are all 2-lane roadways with estimated ADT volumes below 1,000 vpd.



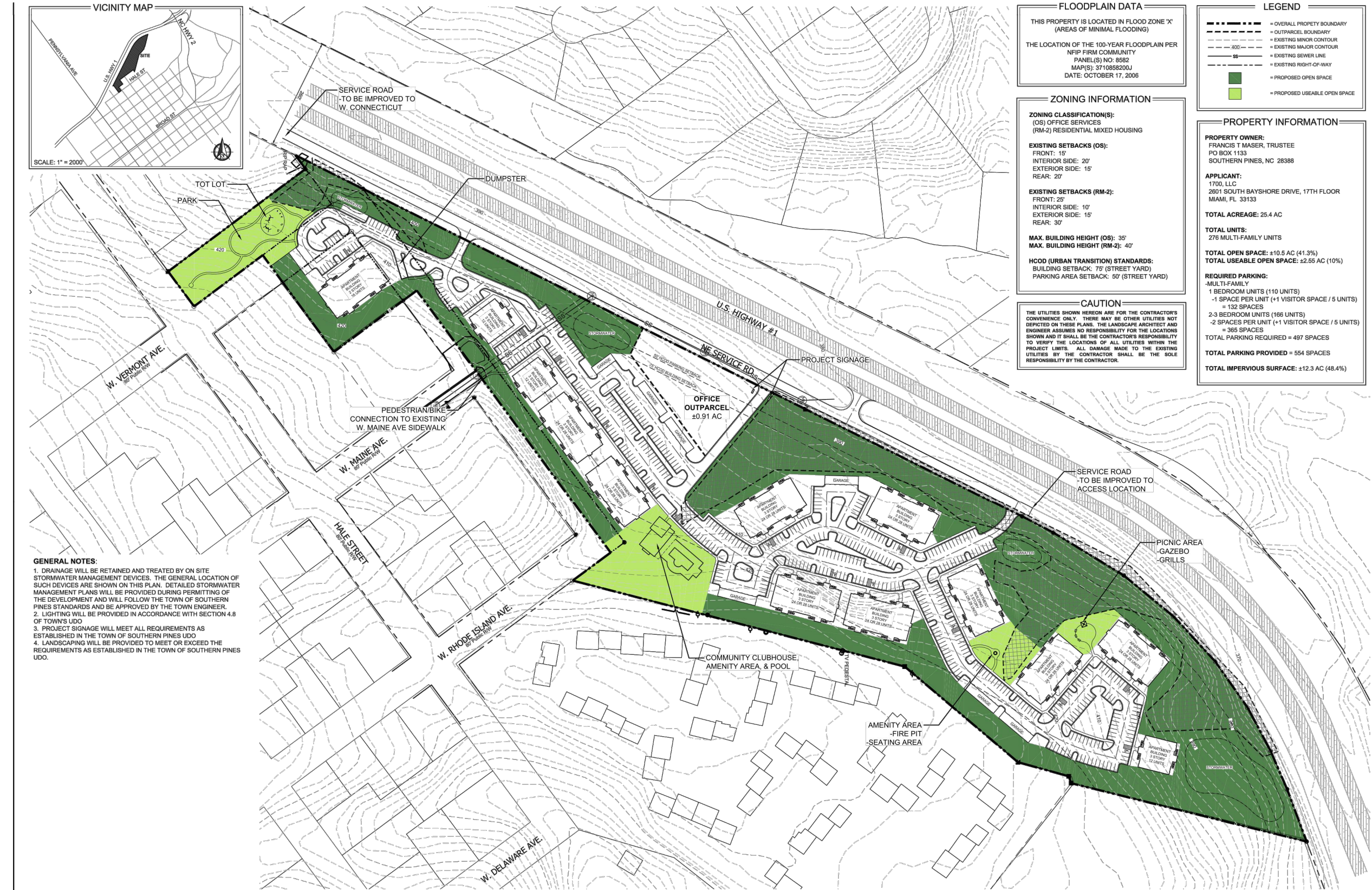
Kimley»Horn

US 1 MULTIFAMILY
SOUTHERN PINES, NC
TRAFFIC IMPACT ANALYSIS

SITE LOCATION

FIGURE
2.1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, ITS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OR 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.



GENERAL NOTES:
1. DRAINAGE WILL BE RETAINED AND TREATED BY ON SITE STORMWATER MANAGEMENT DEVICES. THE GENERAL LOCATION OF SUCH DEVICES ARE SHOWN ON THIS PLAN. DETAILED STORMWATER MANAGEMENT PLANS WILL BE PROVIDED DURING PERMITTING OF THE DEVELOPMENT AND WILL FOLLOW THE TOWN OF SOUTHERN PINES STANDARDS AND BE APPROVED BY THE TOWN ENGINEER.
2. LIGHTING WILL BE PROVIDED IN ACCORDANCE WITH SECTION 4.8 OF TOWN'S UDO.
3. PROJECT SIGNAGE WILL MEET ALL REQUIREMENTS AS ESTABLISHED IN THE TOWN OF SOUTHERN PINES UDO.
4. LANDSCAPING WILL BE PROVIDED TO MEET OR EXCEED THE REQUIREMENTS AS ESTABLISHED IN THE TOWN OF SOUTHERN PINES UDO.



FLOODPLAIN DATA
THIS PROPERTY IS LOCATED IN FLOOD ZONE 'X' (AREAS OF MINIMAL FLOODING)
THE LOCATION OF THE 100-YEAR FLOODPLAIN PER NFIP FIRM COMMUNITY PANEL(S) NO: 8582 MAP(S): 3710858200J DATE: OCTOBER 17, 2006

ZONING INFORMATION
ZONING CLASSIFICATION(S):
(OS) OFFICE SERVICES
(RM-2) RESIDENTIAL MIXED HOUSING
EXISTING SETBACKS (OS):
FRONT: 15'
INTERIOR SIDE: 20'
EXTERIOR SIDE: 15'
REAR: 20'
EXISTING SETBACKS (RM-2):
FRONT: 25'
INTERIOR SIDE: 10'
EXTERIOR SIDE: 15'
REAR: 30'
MAX. BUILDING HEIGHT (OS): 35'
MAX. BUILDING HEIGHT (RM-2): 40'
HCOD (URBAN TRANSITION) STANDARDS:
BUILDING SETBACK: 75' (STREET YARD)
PARKING AREA SETBACK: 50' (STREET YARD)

CAUTION
THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT DEPICTED ON THESE PLANS. THE LANDSCAPE ARCHITECT AND ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE PROJECT LIMITS. ALL DAMAGE MADE TO THE EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY BY THE CONTRACTOR.

LEGEND
--- OVERALL PROPERTY BOUNDARY
--- OUTPARCEL BOUNDARY
--- EXISTING MINOR CONTOUR
--- EXISTING MAJOR CONTOUR
--- EXISTING SEWER LINE
--- EXISTING RIGHT-OF-WAY
■ PROPOSED OPEN SPACE
■ PROPOSED USEABLE OPEN SPACE

PROPERTY INFORMATION
PROPERTY OWNER:
FRANCIS T MASER, TRUSTEE
PO BOX 1133
SOUTHERN PINES, NC 28388
APPLICANT:
1700, LLC
2601 SOUTH BAYSHORE DRIVE, 17TH FLOOR
MIAMI, FL 33133
TOTAL ACREAGE: 25.4 AC
TOTAL UNITS:
276 MULTI-FAMILY UNITS
TOTAL OPEN SPACE: ±10.5 AC (41.3%)
TOTAL USEABLE OPEN SPACE: ±2.55 AC (10%)
REQUIRED PARKING:
MULTI-FAMILY
1 BEDROOM UNITS (110 UNITS)
-1 SPACE PER UNIT (+1 VISITOR SPACE / 5 UNITS)
= 132 SPACES
2-3 BEDROOM UNITS (166 UNITS)
-2 SPACES PER UNIT (+1 VISITOR SPACE / 5 UNITS)
= 365 SPACES
TOTAL PARKING REQUIRED = 497 SPACES
TOTAL PARKING PROVIDED = 554 SPACES
TOTAL IMPERVIOUS SURFACE: ±12.3 AC (48.4%)

PRELIMINARY PLANS - NOT RELEASED FOR CONSTRUCTION (FOR REVIEW ONLY)

KOONTZJONESDesign
LAND PLANNING / LANDSCAPE ARCHITECTURE
150 S PAGE STREET
SUITE 200
SOUTHERN PINES, NC 28387
P: (910) 659-4055
W: www.koontzjonesdesign.com

REVISIONS:

REVISIONS:

PATRICK'S POINTE
SOUTHERN PINES, NORTH CAROLINA
SITE PLAN

DATE: 10-11-2021
DRAWN BY: REK
CHECKED BY: REK
SCALE: 1"=100'-0"
PROJECT #:
SHEET NUMBER:
L-1.1



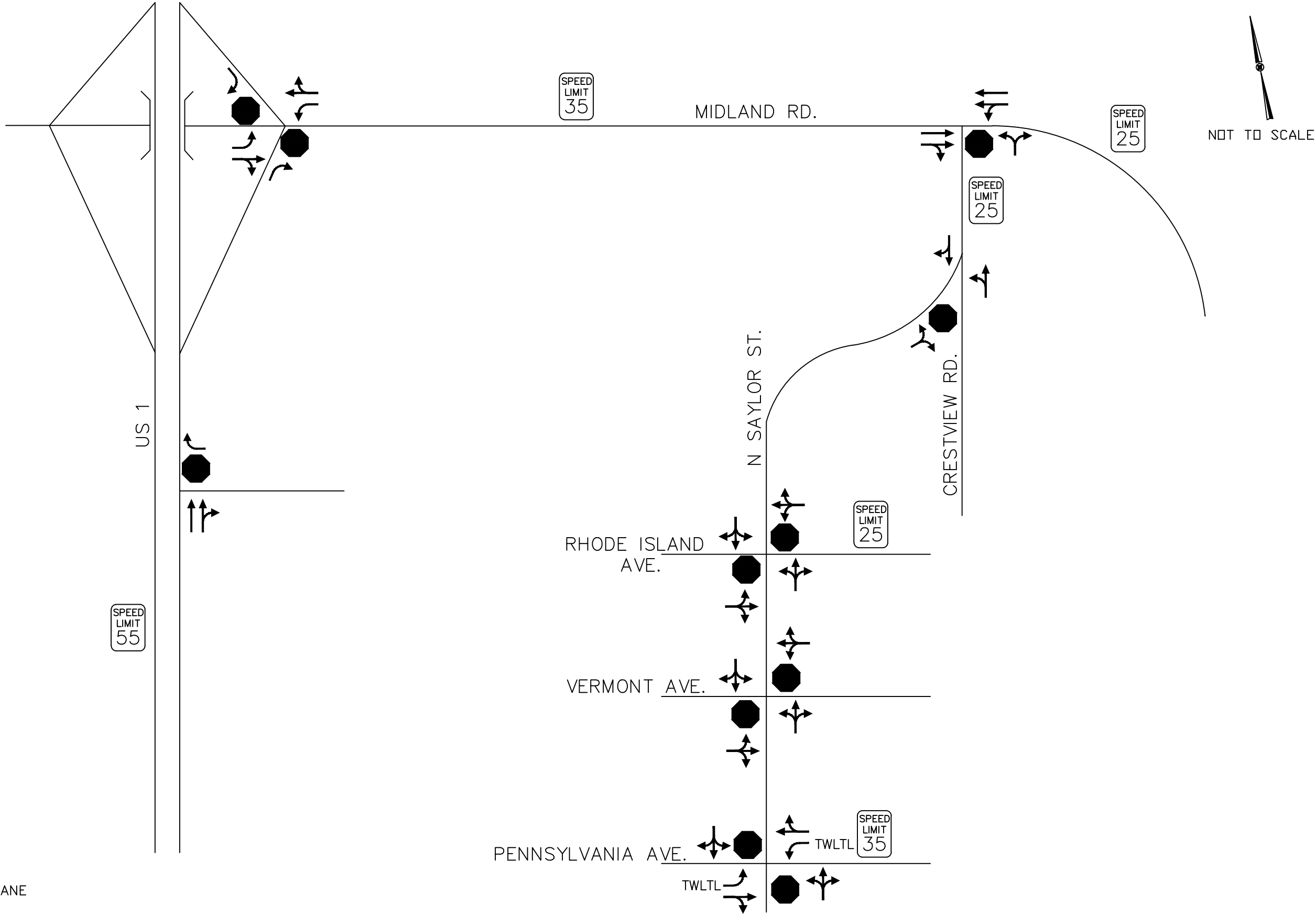
US 1 MULTIFAMILY
SOUTHERN PINES, NC
TRAFFIC IMPACT ANALYSIS

SITE PLAN

FIGURE
2.2

LEGEND

- EXISTING LANE
- EXISTING STOP SIGN
-  POSTED SPEED LIMIT



3.0 Traffic Generation

The traffic generation potential for the proposed US 1 Multifamily project was determined using the traffic generation data in *Trip Generation* (Institute of Transportation Engineers, 10th Edition, 2017) with the exception of the daily rate for the apartments for which a rate of 7.32 trips per unit was used per the Town's UDO. As currently envisioned, the site will include up to 276 apartment units and 7,500 square feet (SF) of general office space. The trip generation for the proposed development is shown on Table 3.1.

Table 3.1 ITE Traffic Generation (Vehicles)								
Land Use Code	Land Use	Intensity		Daily	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
221	Apartments	276	d.u.	2,020	24	69	71	46
710	General Office Building	7,500	s.f.	86	29	5	2	8
Total Net New External Trips				2,106	53	74	73	54

Table 3.1 shows that the project is anticipated to generate approximately 2,106 new daily trips, 127 new trips during the AM peak hour, and 127 new trips during the PM peak hour on a typical weekday. To present a conservative analysis, no internal capture was assumed between the residential and office land uses.

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

4.0 Site Traffic Distribution

The proposed generated trips for the development were assigned to the surrounding roadway network. The directional distribution and assignment for the development were based on a review of surrounding land uses and existing traffic patterns in the area.

- 30% to/from downtown Southern Pines
- 30% to/from Pinehurst along Midland Road and W Pennsylvania Avenue
- 30% to/from the south along US 1
- 10% to/from the north along US 1

The site traffic distribution and percent assignment are shown on **Figure 4.1**. The US 1 – Midland Road interchange site traffic distribution is shown in **Figure 4.2**.

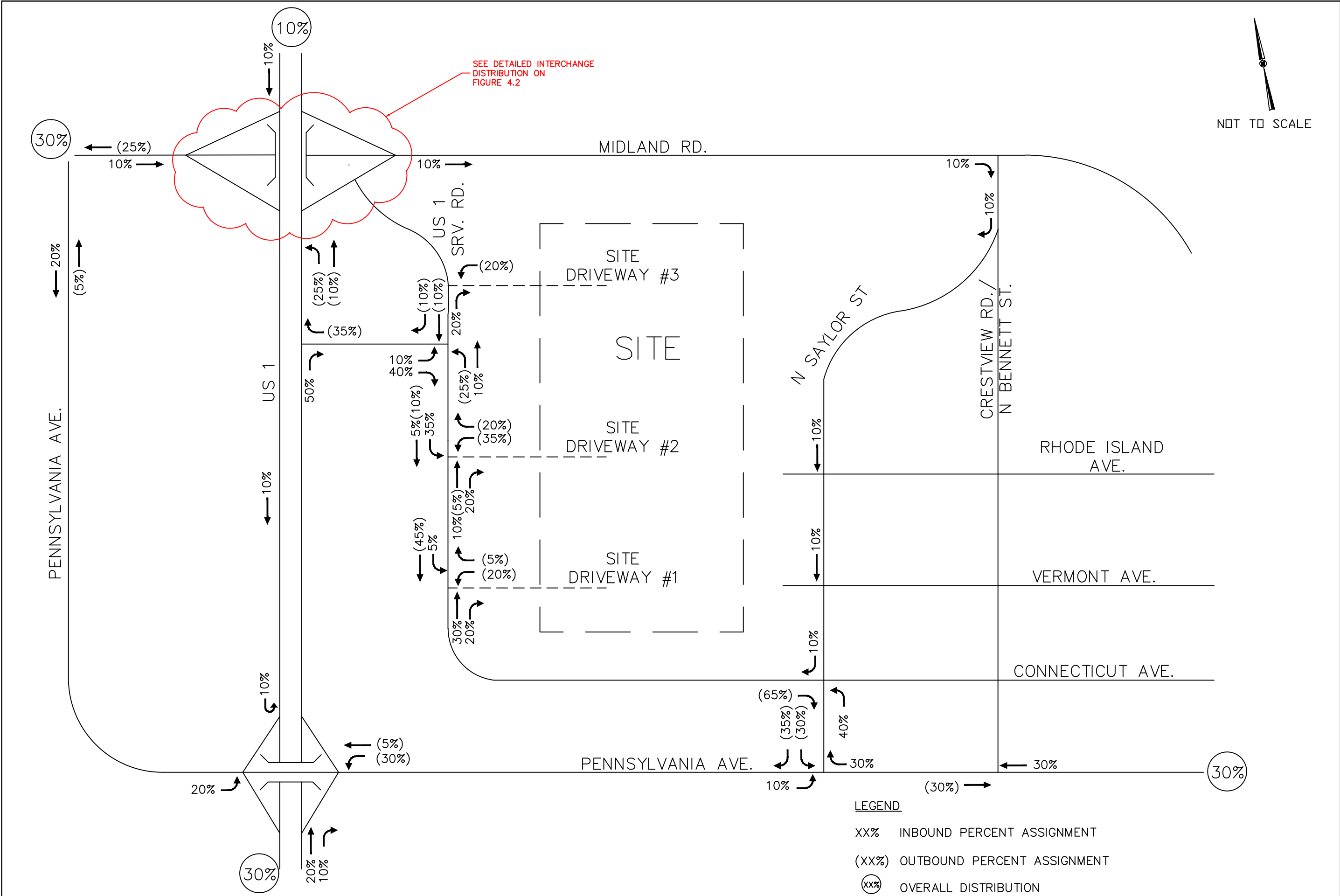


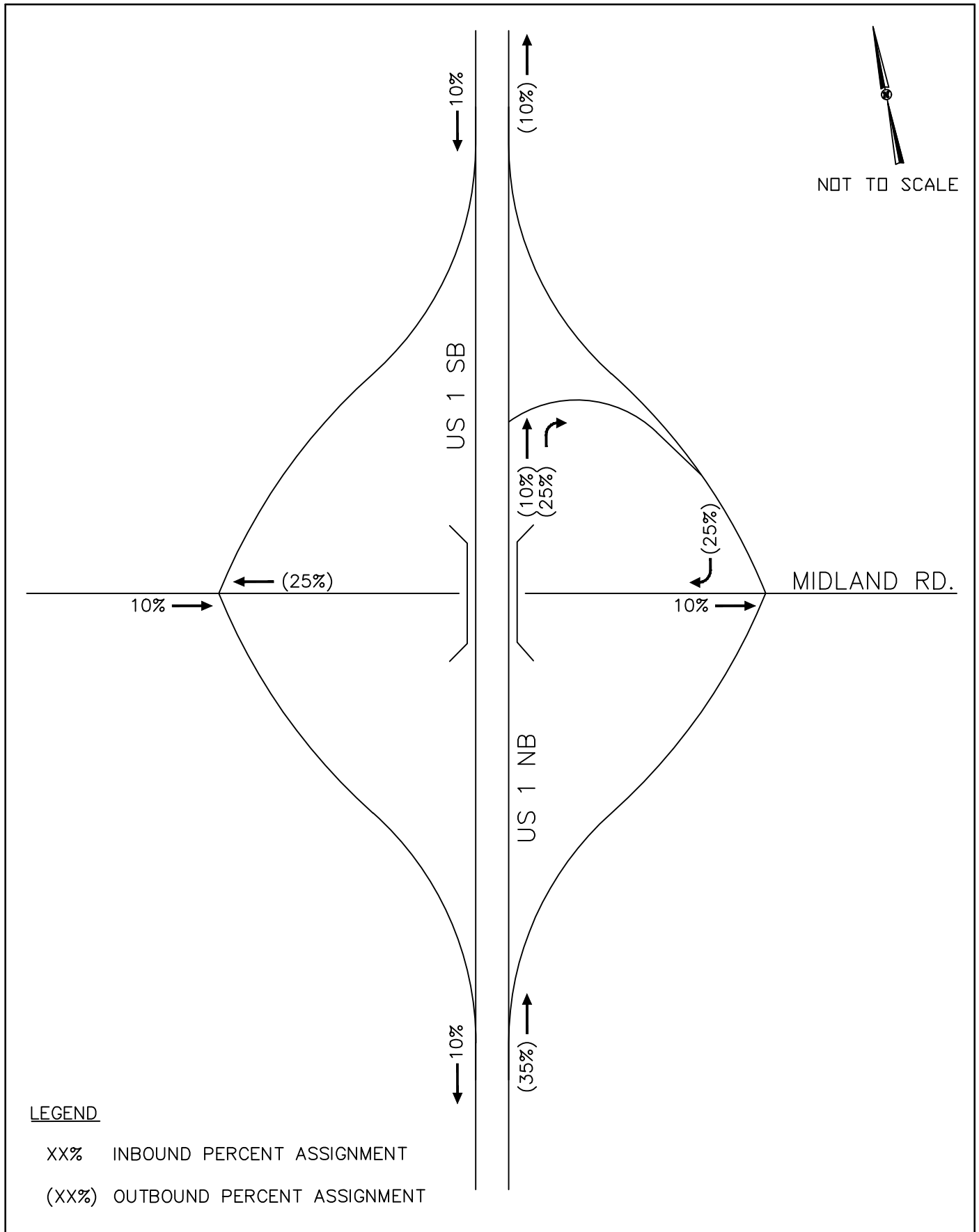
FIGURE 4.1

SITE TRAFFIC DISTRIBUTION AND PERCENT ASSIGNMENT

US 1 MULTIFAMILY SOUTHERN PINES, NC TRAFFIC IMPACT ANALYSIS



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US 1 MULTIFAMILY
SOUTHERN PINES, NC
TRAFFIC IMPACT ANALYSIS

SITE TRAFFIC DISTRIBUTION –
US 1 AT MIDLAND ROAD
INTERCHANGE

FIGURE
4.2

5.0 Projected Traffic Volumes

5.1 Existing Traffic

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

- Midland Road at US 1 Northbound Ramps September 8, 2021
- Midland Road at Crestview Road September 8, 2021
- N Saylor Street at Crestview Road September 8, 2021
- N Saylor Street at W Rhode Island Avenue September 8, 2021
- N Saylor Street at W Vermont Avenue September 8, 2021
- N Saylor Street at W Pennsylvania Avenue September 8, 2021
- US 1 NE Service Road at US 1 NE Service Road Access September 8, 2021

Moore County schools were in session when the counts were collected, therefore no adjustment was deemed necessary in the AM or PM peak hours.

Existing AM and PM peak hour traffic volumes, including volume adjustments, are shown on **Figures 5.1** and **5.2**, respectively, and the traffic count data are included in the Appendix.

5.2 Background Traffic Growth

Background traffic growth is the increase in traffic due to non-specific growth throughout the area. Based on a review of historic growth rates in the area, a 1.5% annual growth rate was applied to existing volumes up to the study year 2031. Background growth calculations are detailed on intersection spreadsheets included in the Appendix of this report.

5.3 Background Traffic

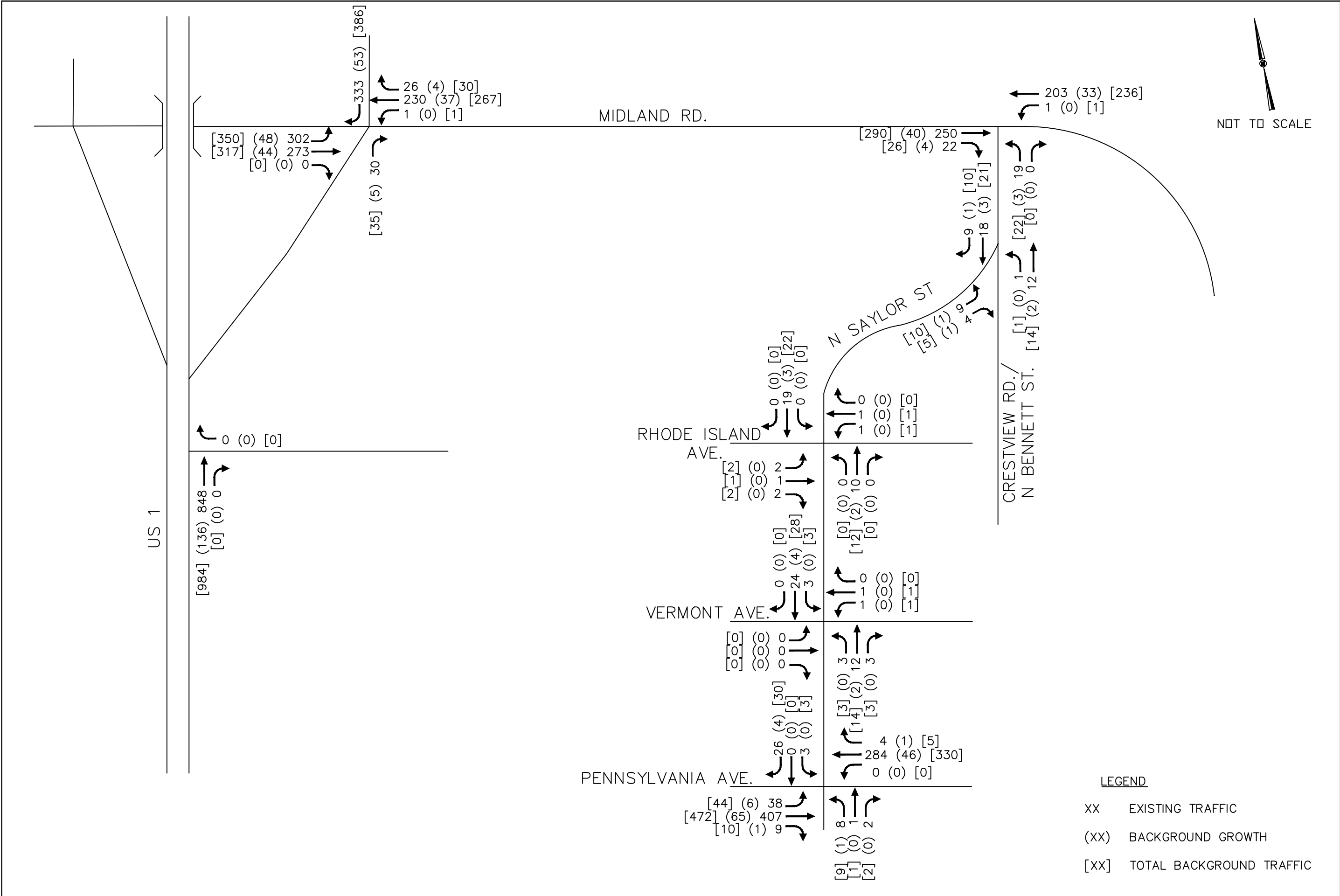
Background traffic volumes, consisting of existing traffic, background traffic growth, and approved development traffic, are shown on **Figures 5.1** and **5.2** for the AM and PM peak hours, respectively.

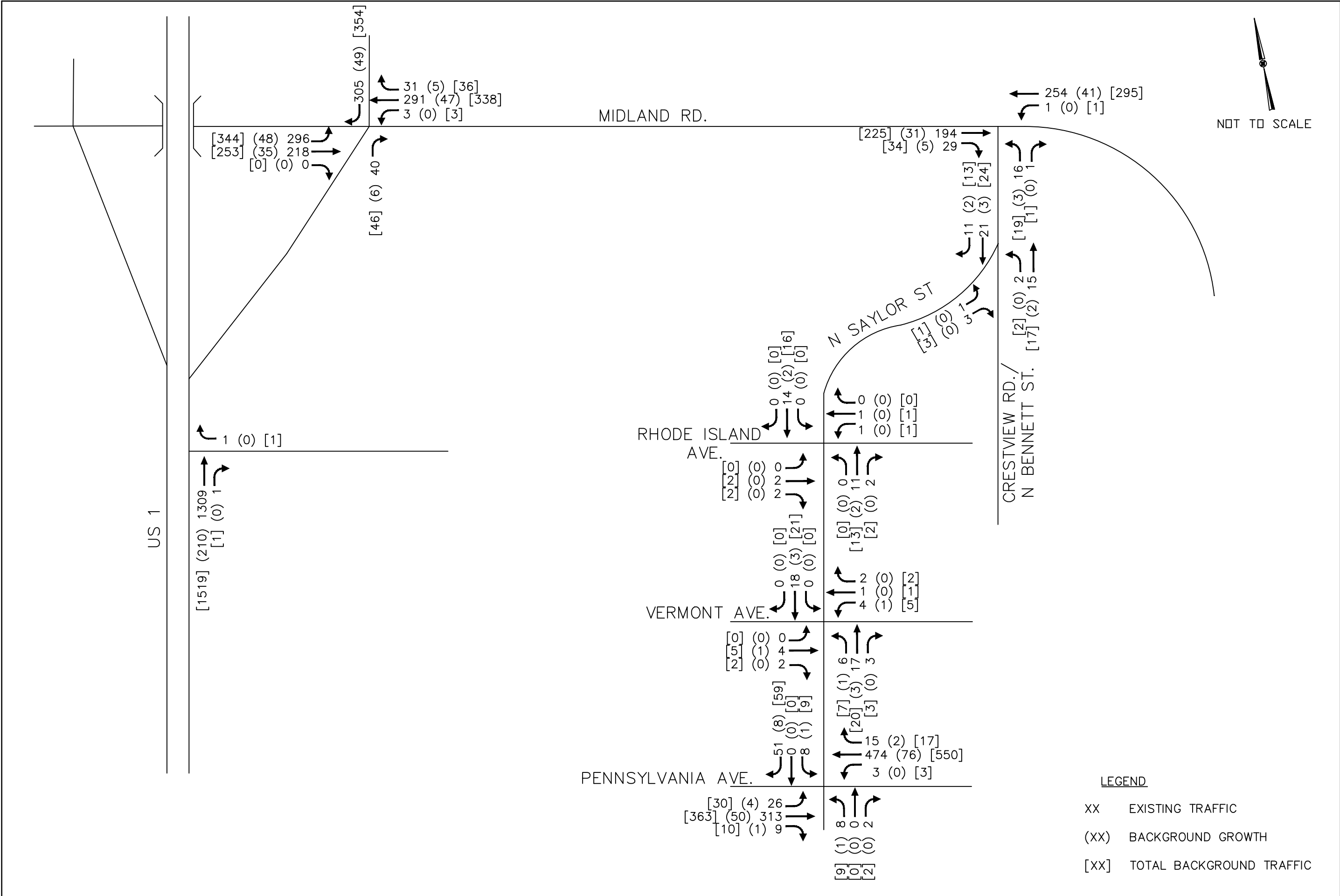
5.4 Site Traffic

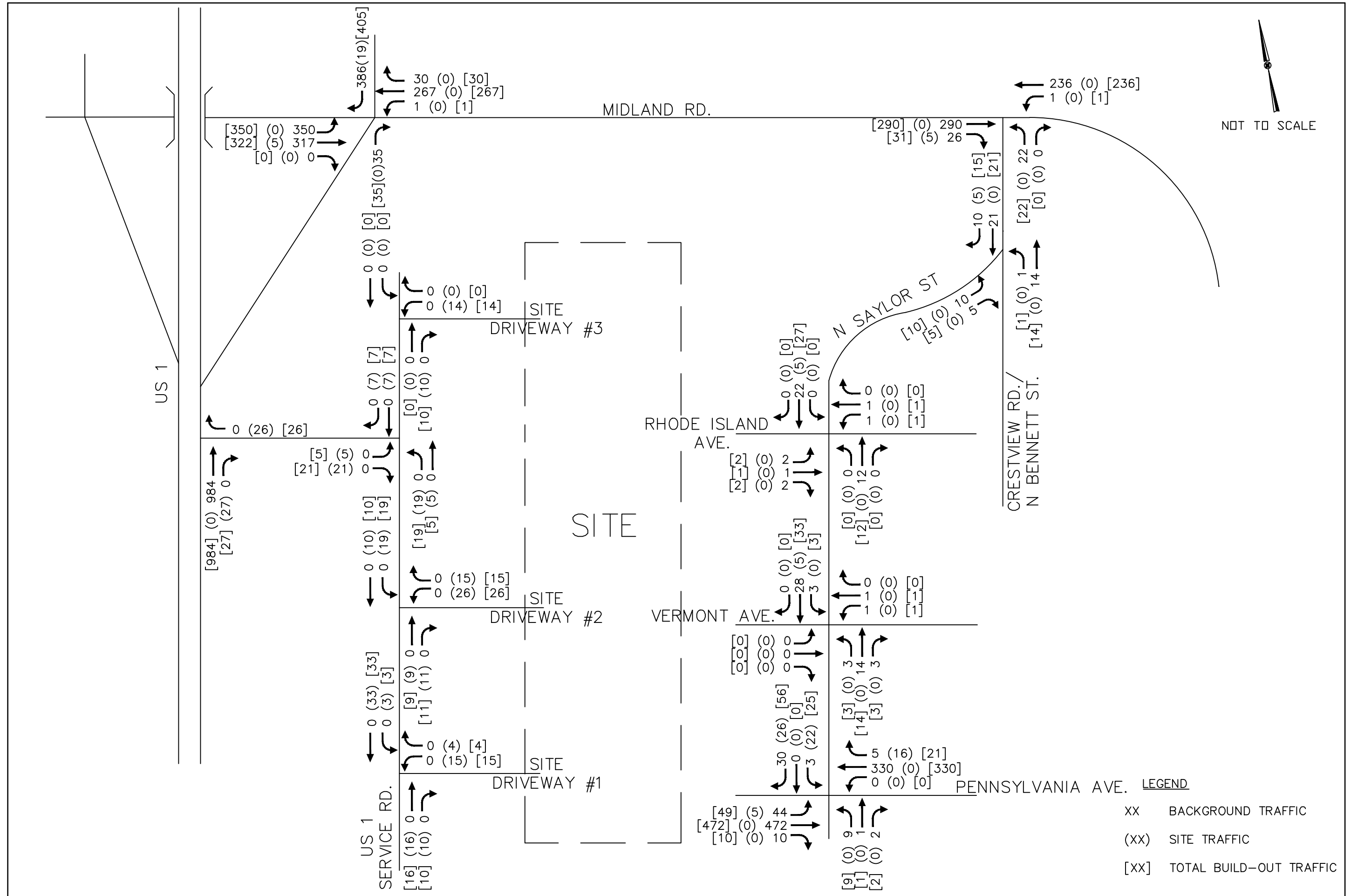
The projected site traffic for development was generated and assigned to the adjacent roadway network according to the distribution discussed previously in *Section 4.0*. The AM and PM peak hour site traffic volumes are shown on **Figures 5.3** and **5.4**, respectively.

5.5 Build-Out Traffic

To obtain the projected (2031) build-out traffic volumes, the projected site traffic was added to the projected (2031) background traffic. **Figures 5.3** and **5.4** show the projected (2031) AM and PM peak hour build-out traffic volumes, respectively. Traffic volume calculations are detailed in intersection spreadsheets in the Appendix of this report.









6.0 Capacity Analysis

Capacity analyses (see Appendix) were performed for the AM and PM peak hours for the existing traffic condition and the projected (2024) background and build-out traffic conditions using Synchro/SimTraffic Version 10 software to determine the operating characteristics of the adjacent road network and the impacts of the proposed project. The NCDOT Congestion Management Group uses and reports Synchro Level-of-Service output for the analysis of intersection operating conditions. All capacity analyses are included in the Appendix and are briefly summarized in the following sub-sections.

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 (HCM)* 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 10 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

Existing peak hour factors (PHF) were used for existing intersections, while a PHF of 0.90 was used for new intersections.

6.1 Midland Road at US 1 Northbound Ramps

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (US 1 Northbound Ramps) in both peak hours on both the northbound and southbound sides of the intersection. The minor street approaches are expected to continue to operate with short delays in the 2031 background and build-out condition in both peak hours with only minor increases in delay due to site traffic. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.1 summarizes the operation of the intersection of Midland Road at US 1 Northbound Ramps for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.1 Level-of-Service Midland Road at US 1 Northbound Ramps (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	EB – B (10.4) WB – C (15.3)	EB – A (9.8) WB – C (14.5)
Background (2031) Traffic	EB – B (10.9) WB – C (19.6)	EB – B (10.1) WB – C (17.8)
Build-out (2031) Traffic	EB – B (11.0) WB – C (21.0)	EB – B (10.1) WB – C (18.4)

6.2 Midland Road at Crestview Road

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approach (Crestview Road) in both peak hours. The minor street approach is expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.2 summarizes the operation of the intersection of Midland Road at Crestview Road for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.2 Level-of-Service Midland Road at Crestview Road (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	EB – B (11.7) NBL – A (7.9)	EB – B (11.1) NBL – A (7.8)
Background (2031) Traffic	EB – B (12.5) NBL – A (8.1)	EB – B (11.8) NBL – A (7.9)
Build-out (2031) Traffic	EB – B (12.5) NBL – A (8.1)	EB – B (11.9) NBL – A (7.9)

6.3 N Saylor Street at Crestview Road

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (Crestview Road) in both peak hours. The minor street approaches are expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.3 summarizes the operation of the intersection of N Saylor Street at Crestview Road for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.3 Level-of-Service N Saylor Street at Crestview Road (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	NB – A (8.8) WBL – A (7.3)	NB – A (8.7) WBL – A (7.3)
Background (2031) Traffic	NB – A (8.9) WBL – A (7.3)	NB – A (8.7) WBL – A (7.4)
Build-out (2031) Traffic	NB – A (8.9) WBL – A (7.3)	NB – A (8.8) WBL – A (7.4)

6.4 N Saylor Street at W Rhode Island Avenue

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (W Rhode Island Avenue) in both peak hours. The minor street approaches are expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.4 summarizes the operation of the intersection of N Saylor Street at W Rhode Island Avenue for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.4 Level-of-Service N Saylor Street at W Rhode Island Avenue (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	EB – A (9.0) WB – A (9.5) NBL – A (7.4) SBL – A (7.3)	EB – A (8.9) WB – A (8.9) NBL – A (7.3) SBL – A (7.3)
Background (2031) Traffic	EB – A (9.0) WB – A (9.5) NBL – A (7.4) SBL – A (7.3)	EB – A (8.9) WB – A (8.9) NBL – A (7.3) SBL – A (7.3)
Build-out (2031) Traffic	EB – A (9.1) WB – A (9.6) NBL – A (7.4) SBL – A (7.3)	EB – A (9.0) WB – A (9.0) NBL – A (7.3) SBL – A (7.3)

6.5 N Saylor Street at W Vermont Avenue

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (W Vermont Avenue) in both peak hours. The minor street approaches are expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.5 summarizes the operation of the intersection of N Saylor Street at W Vermont Avenue for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.5 Level-of-Service N Saylor Street at W Vermont Avenue (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	EB – A (9.1) WB – A (9.6) NBL – A (7.3) SBL – A (7.3)	EB – A (9.0) WB – A (9.0) NBL – A (7.3) SBL – A (7.3)
Background (2031) Traffic	EB – A (9.2) WB – A (9.7) NBL – A (7.4) SBL – A (7.3)	EB – A (9.1) WB – A (9.1) NBL – A (7.3) SBL – A (7.3)
Build-out (2031) Traffic	EB – A (9.2) WB – A (9.7) NBL – A (7.4) SBL – A (7.3)	EB – A (9.2) WB – A (9.1) NBL – A (7.3) SBL – A (7.3)

6.6 N Saylor Street at Pennsylvania Avenue

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approaches (N Saylor Street) in both peak hours. The minor street approaches are expected to continue operating with short delays in the 2031 background and build-out conditions in both peak hours. No queuing issues are expected at this intersection. Therefore, no roadway improvements are recommended to accommodate site traffic at this intersection.

Table 6.6 summarizes the operation of the intersection of N Saylor Street at Pennsylvania Avenue for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.6 Level-of-Service N Saylor Street at Pennsylvania Avenue (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	NB – C (17.6) SB – B (12.4) EBL – A (8.0) WBL – A (8.3)	NB – C (19.7) SB – B (14.7) EBL – A (8.6) WBL – A (8.0)
Background (2031) Traffic	NB – C (21.0) SB – B (13.4) EBL – A (8.2) WBL – A (8.5)	NB – C (24.8) SB – C (17.0) EBL – A (8.9) WBL – A (8.1)
Build-out (2031) Traffic	NB – C (22.6) SB – C (17.6) EBL – A (8.2) WBL – A (8.5)	NB – D (26.9) SB – C (22.0) EBL – A (9.0) WBL – A (8.1)

6.7 US 1 Northbound at US 1 NE Service Road Access

Analyses indicate that this unsignalized intersection currently operates with short delays on the minor street approach (US 1 NE Service Road Access) in both peak hours. The minor street approach is expected to continue operating with short delays in the 2031 background condition in both peak hours.

The following improvement is recommended at this intersection to accommodate projected site traffic:

- Construct an exclusive right-turn lane on US 1 Northbound with 50 feet of storage and appropriate tapers

With this improvement in place, the intersection is expected to continue to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.7 summarizes the operation of the intersection of US 1 Northbound at US 1 NE Service Road Access for the existing (2021) traffic condition and the projected (2031) background and build-out traffic conditions.

Table 6.7 Level-of-Service US 1 Northbound at US 1 NE Service Road Access (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2021) Traffic	WB – B (12.4)	WB – C (15.3)
Background (2031) Traffic	WB – B (13.4)	WB – C (17.3)
Build-out (2031) Traffic	WB – B (14.0)	WB – C (18.1)

6.8 US 1 NE Service Road at Site Driveway #1

The US 1 Multifamily project proposes to construct a full movement site driveway with one ingress lane and one egress lane on the US 1 NE Service Road approximately 1,000 feet south of US 1 NE Service Road Access. To accommodate site traffic at this intersection, the following roadway improvements are recommended:

- Pave and stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Pave and stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With these improvements in place, the intersection is expected to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.8 summarizes the operation of the intersection of US 1 NE Service Road at Proposed Site Driveway #1 for the projected (2031) build-out traffic condition.

Table 6.8 Level-of-Service US 1 NE Service Road at Proposed Site Driveway #1 (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2031) Traffic	WB – A (8.9) SBL – A (7.3)	WB – A (8.8) SBL – A (7.3)

6.9 US 1 NE Service Road at Site Driveway #2

The US 1 Multifamily project proposes to construct a full movement site driveway with one ingress lane and one egress lane on the US 1 NE Service Road approximately 200 feet south of US 1 NE Service Road Access. To accommodate site traffic at this intersection, the following roadway improvements are recommended:

- Pave and stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Pave and stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With these improvements in place, the intersection is expected to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.9 summarizes the operation of the intersection of US 1 NE Service Road at Site Driveway #2 for the projected (2031) build-out traffic condition.

Table 6.9 Level-of-Service US 1 NE Service Road at Site Driveway #2 (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2031) Traffic	WB – A (8.9) SBL – A (7.3)	WB – A (8.9) SBL – A (7.3)

6.10 US 1 NE Service Road at US 1 NE Service Road Access

The US 1 Multifamily project proposes to construct a full movement site driveway with one ingress lane and one egress lane tied into the US 1 NE Service Road approximately 200 feet north of Proposed Site Driveway #2. To accommodate site traffic at this intersection, the following roadway improvements are recommended:

- Operate the eastbound approach (US 1 NE Service Road Access) as a free-flow movement with stop-control on the northbound and southbound approaches

With these improvements in place, the intersection is expected to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.10 summarizes the operation of the intersection of US 1 NE Service Road at US 1 NE Service Road Access for the projected (2031) build-out traffic condition.

Table 6.10 Level-of-Service* US 1 NE Service Road at US 1 NE Service Road Access (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2031) Traffic	NB – A (4.0) SB - A (3.8)	NB – A (4.0) SB - A (2.9)

*SimTraffic results were reported at this intersection as Synchro does not report delays for the proposed control condition

6.11 US 1 NE Service Road at Site Driveway #3

The US 1 Multifamily project proposes to construct a full movement site driveway with one ingress lane and one egress lane tied into US 1 NE Service Road approximately 450 feet north of US 1 NE Service Road Access. To accommodate site traffic at this intersection, the following roadway improvements are recommended:

- Pave and stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Pave and stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With these improvements in place, the intersection is expected to operate with short delays in both peak hours in the projected (2031) build-out condition.

Table 6.11 summarizes the operation of the intersection of US 1 NE Service Road at Proposed Site Driveway #3 for the projected (2031) build-out traffic condition.

Table 6.11 Level-of-Service US 1 NE Service Road at Site Driveway #3 (Unsignalized)		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2031) Traffic	WB – A (8.6) SBL – A (7.3)	WB – A (8.6) SBL – A (7.3)

7.0 Recommendations

The following improvements are recommended to be performed as part of the proposed US 1 Multifamily development:

US 1 at US 1 NE Service Road Access:

- Construct an exclusive right-turn lane on northbound US 1 with 50 feet of storage and appropriate tapers

US 1 NE Service Road at Site Driveway #1:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

US 1 NE Service Road at Site Driveway #2:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

US 1 NE Service Road at US 1 NE Service Road Access

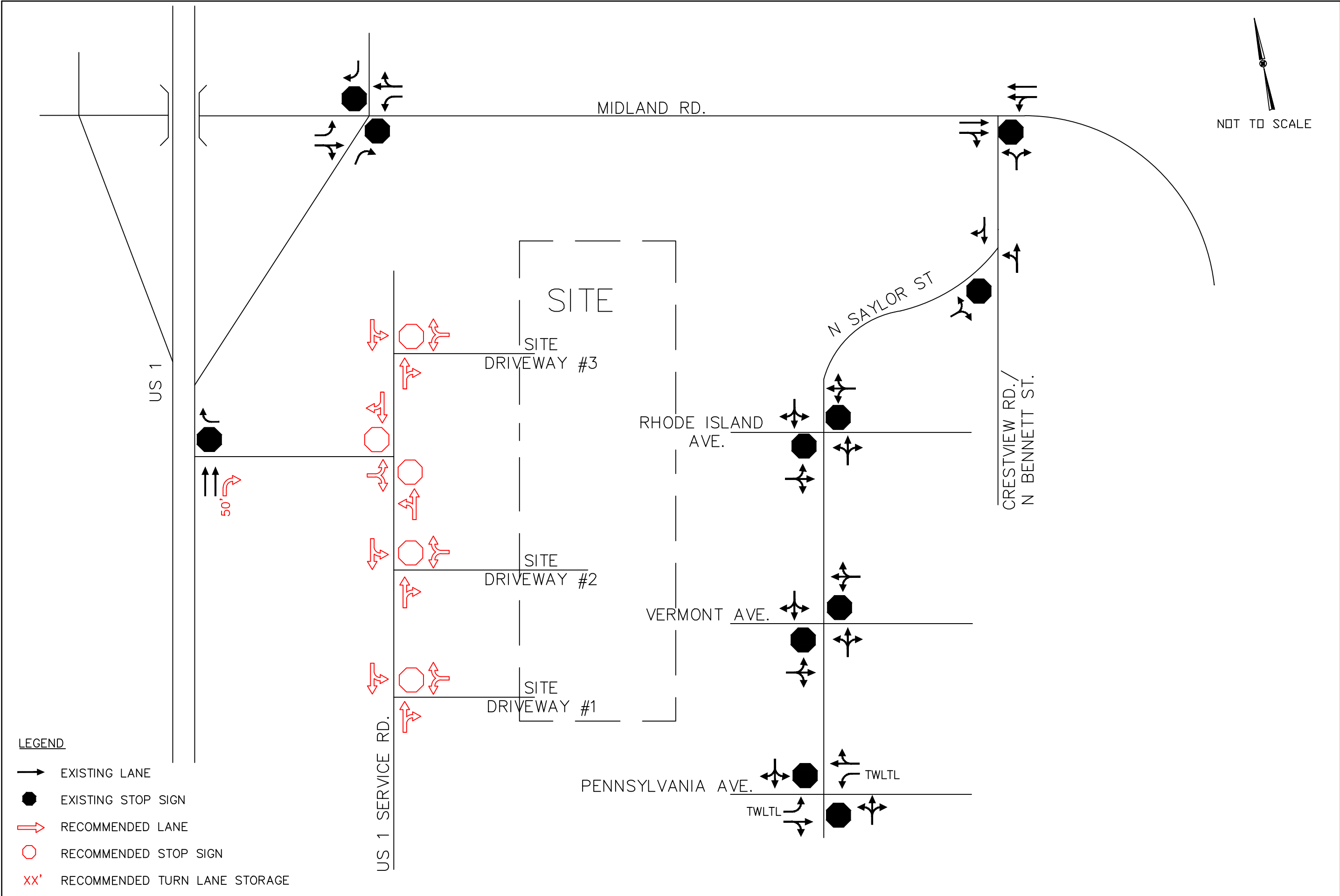
- Operate the eastbound approach (US 1 NE Service Road Access) as a free-flow movement with stop-control on the northbound and southbound approaches

US 1 NE Service Road at Site Driveway #3:

- Stripe the northbound approach of the US 1 NE Service Road as a shared through/right-turn lane
- Stripe the southbound approach of the US 1 NE Service Road as a shared through/left-turn lane

With the recommended improvements in place, analysis indicates that all study intersections are expected to operate at acceptable levels of service with no queuing issues at project build-out.

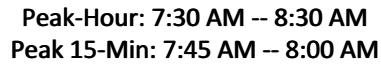
Figure 7.1 shows the recommended roadway laneage.



Appendix

Appendix A: Traffic Count Data

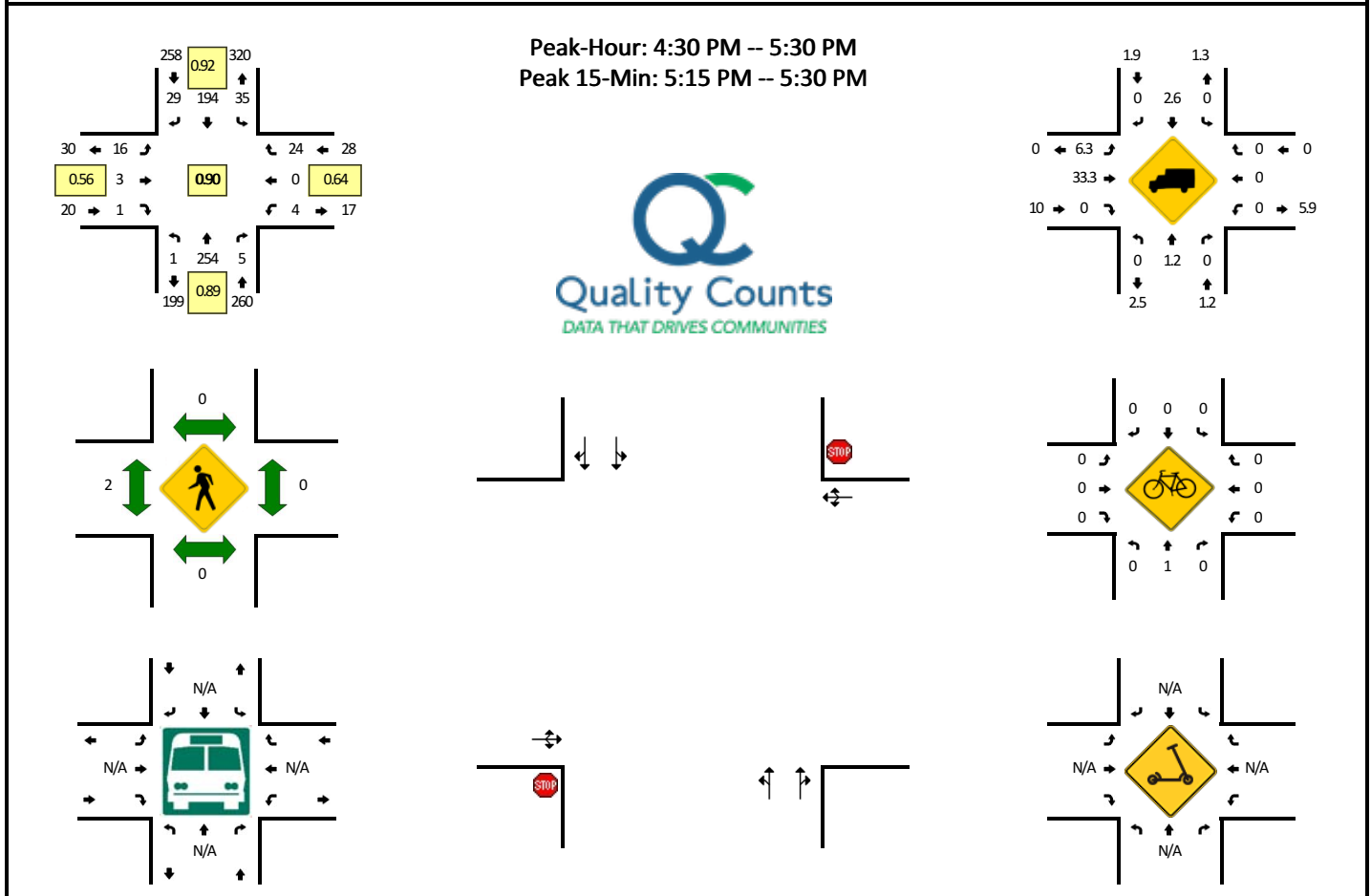
QC JOB #: 15560201
DATE: Wed, Sep 8 2021



Comments:

LOCATION: Midland Rd -- Crestview Rd
CITY/STATE: Southern Pines, NC

QC JOB #: 15560202
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	Midland Rd (Northbound)				Midland Rd (Southbound)				Crestview Rd (Eastbound)				Crestview Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	56	1	0	3	47	10	4	1	0	0	0	0	0	4	0	126	
4:15 PM	0	58	1	0	3	53	9	8	5	0	0	0	1	0	5	0	143	
4:30 PM	0	67	3	0	1	48	7	14	7	1	1	0	0	0	0	0	149	
4:45 PM	0	51	2	0	2	44	6	3	3	1	0	0	2	0	8	0	122	540
5:00 PM	1	63	0	0	4	54	6	3	0	0	0	0	0	0	7	0	138	552
5:15 PM	0	73	0	0	2	48	10	6	6	1	0	0	2	0	9	0	157	566
5:30 PM	0	64	0	0	2	34	7	4	6	0	0	0	0	0	0	0	117	534
5:45 PM	0	48	0	0	1	34	11	5	5	0	0	0	0	0	2	0	106	518
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	292	0	0	8	192	40	24	24	4	0	0	8	0	36	0	628	
Heavy Trucks	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	8	
Buses																		
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters																		

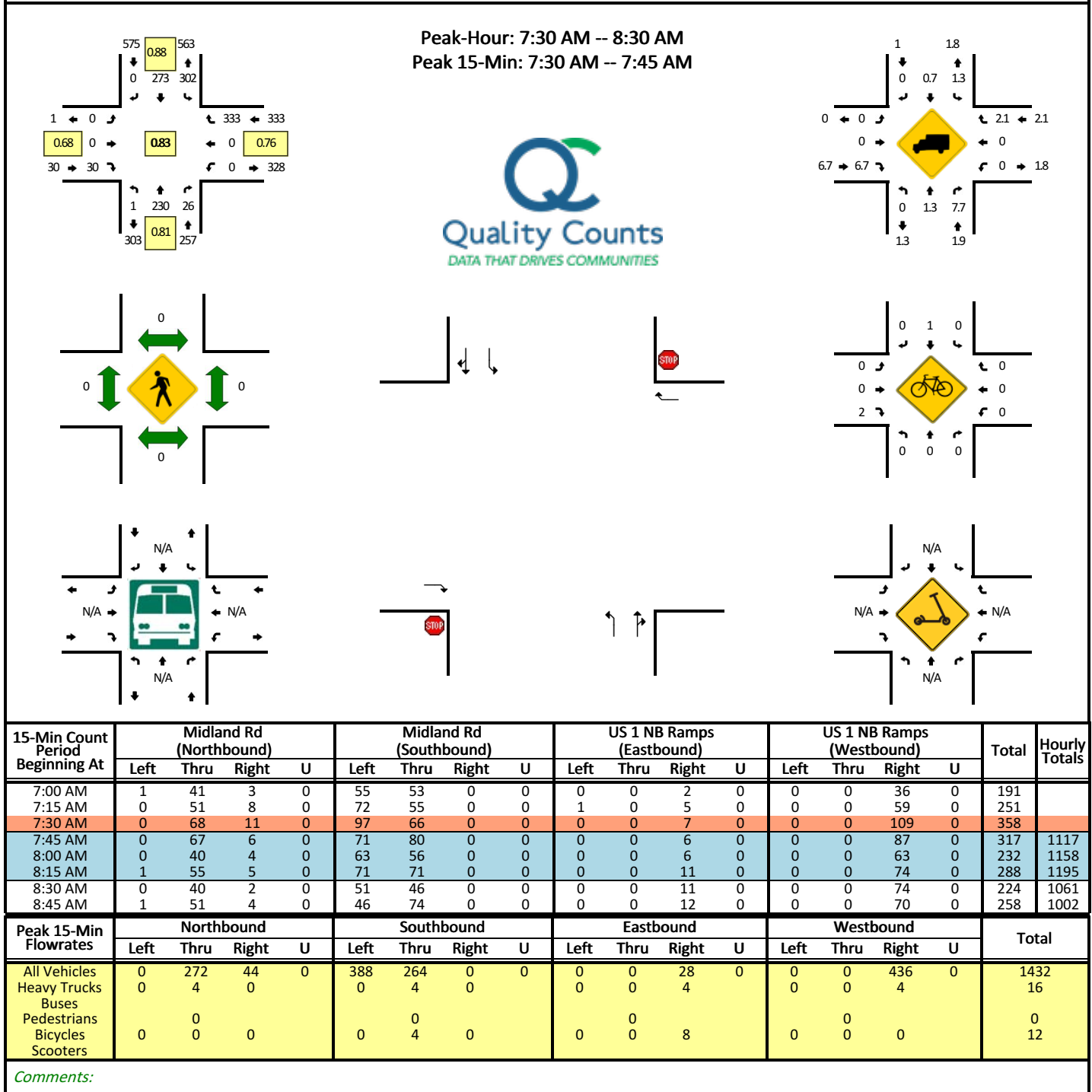
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Midland Rd -- US 1 NB Ramps
CITY/STATE: Southern Pines, NC

QC JOB #: 15560203
DATE: Wed, Sep 8 2021

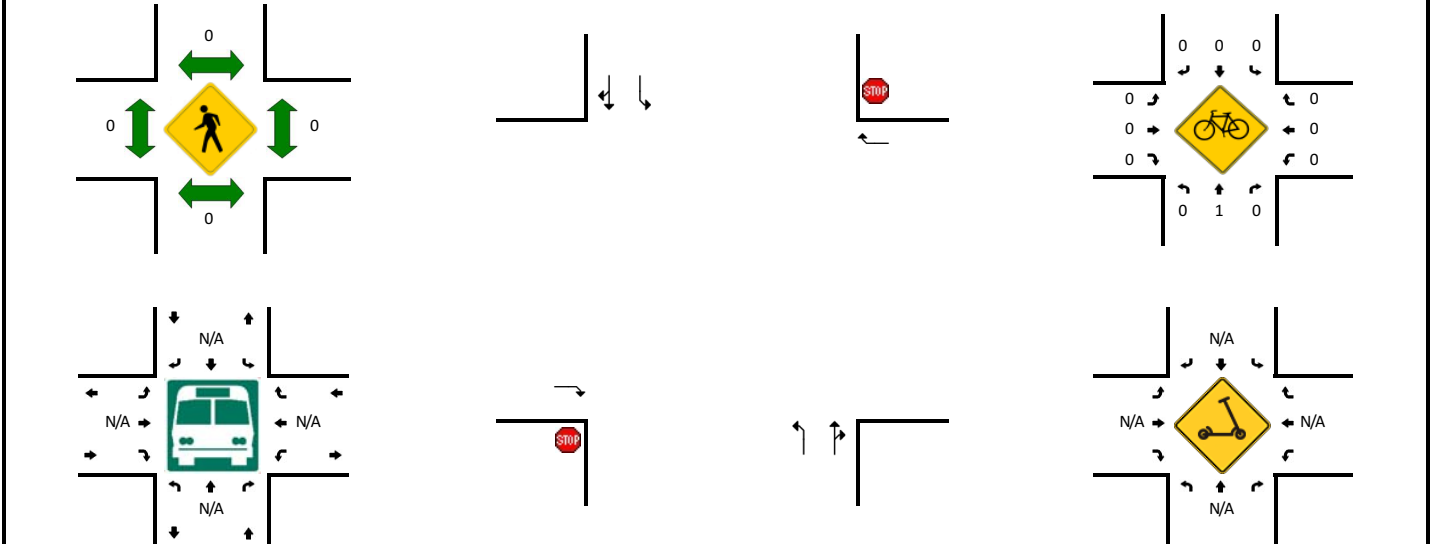


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Midland Rd -- US 1 NB Ramps**QC JOB #:** 15560204**CITY/STATE:** Southern Pines, NC**DATE:** Wed, Sep 8 2021

Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:15 PM -- 5:30 PM



15-Min Count Period Beginning At	Midland Rd (Northbound)				Midland Rd (Southbound)				US 1 NB Ramps (Eastbound)				US 1 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	63	5	0	70	55	0	0	0	0	11	0	0	0	76	0	280	
4:15 PM	1	67	7	0	83	63	0	0	0	0	13	0	0	0	62	1	297	
4:30 PM	1	75	11	1	75	56	0	1	0	0	10	0	0	0	72	0	302	
4:45 PM	0	61	7	0	56	50	0	0	0	0	5	0	0	0	84	0	263	1142
5:00 PM	0	73	6	0	69	54	0	0	2	0	17	0	0	0	76	0	297	1159
5:15 PM	1	82	7	0	94	58	0	1	0	0	8	0	0	0	73	0	324	1186
5:30 PM	0	68	10	0	61	36	0	0	0	0	14	0	0	0	72	0	261	1145
5:45 PM	0	57	3	0	42	41	0	0	0	0	15	0	0	0	60	0	218	1100
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	4	328	28	0	376	232	0	4	0	0	32	0	0	0	292	0	1296	
Heavy Trucks	0	4	0		0	4	0		0	0	0		0	0	4		12	
Buses																		
Pedestrians	0	0			0	0			0	0			0	0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		

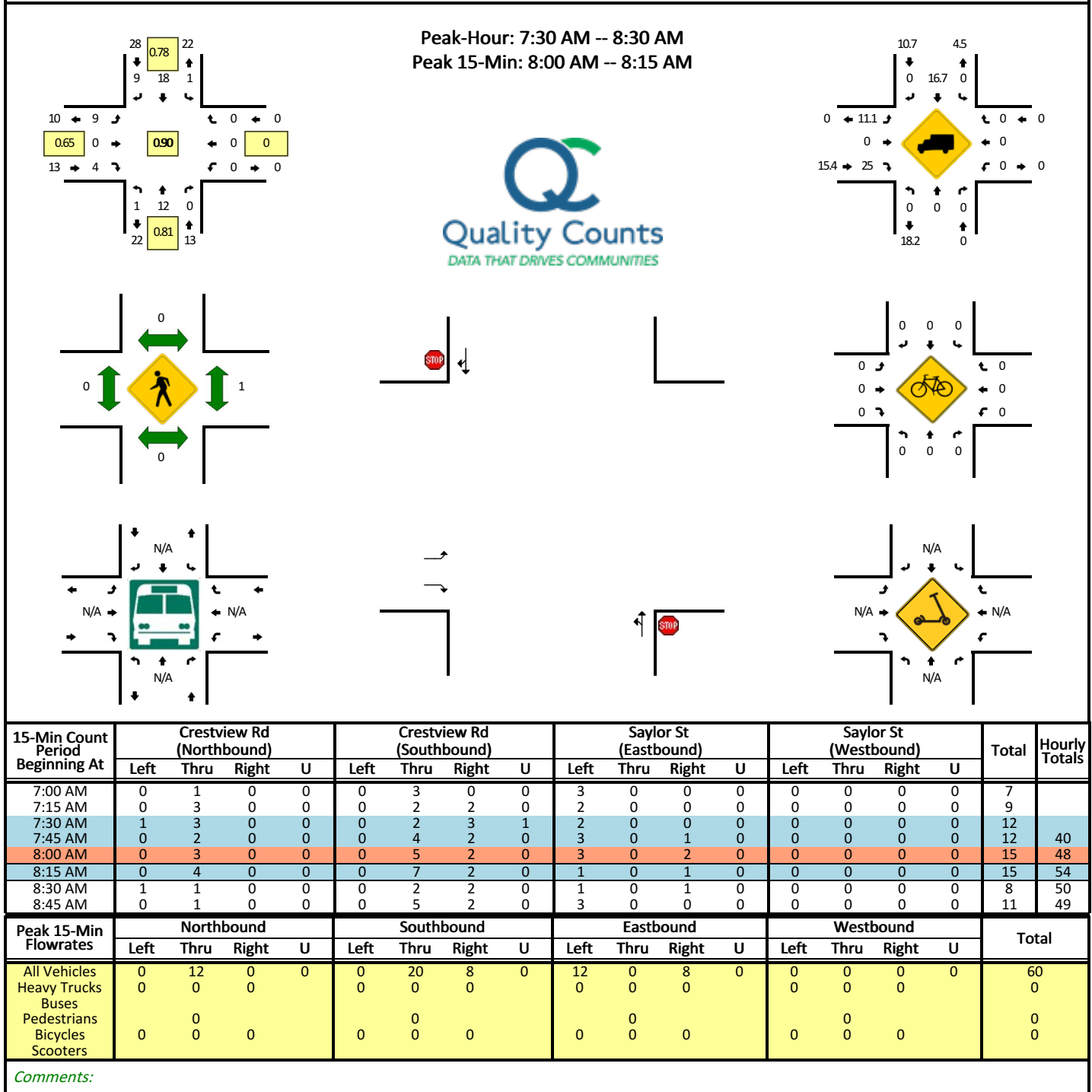
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Crestview Rd -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560205
DATE: Wed, Sep 8 2021

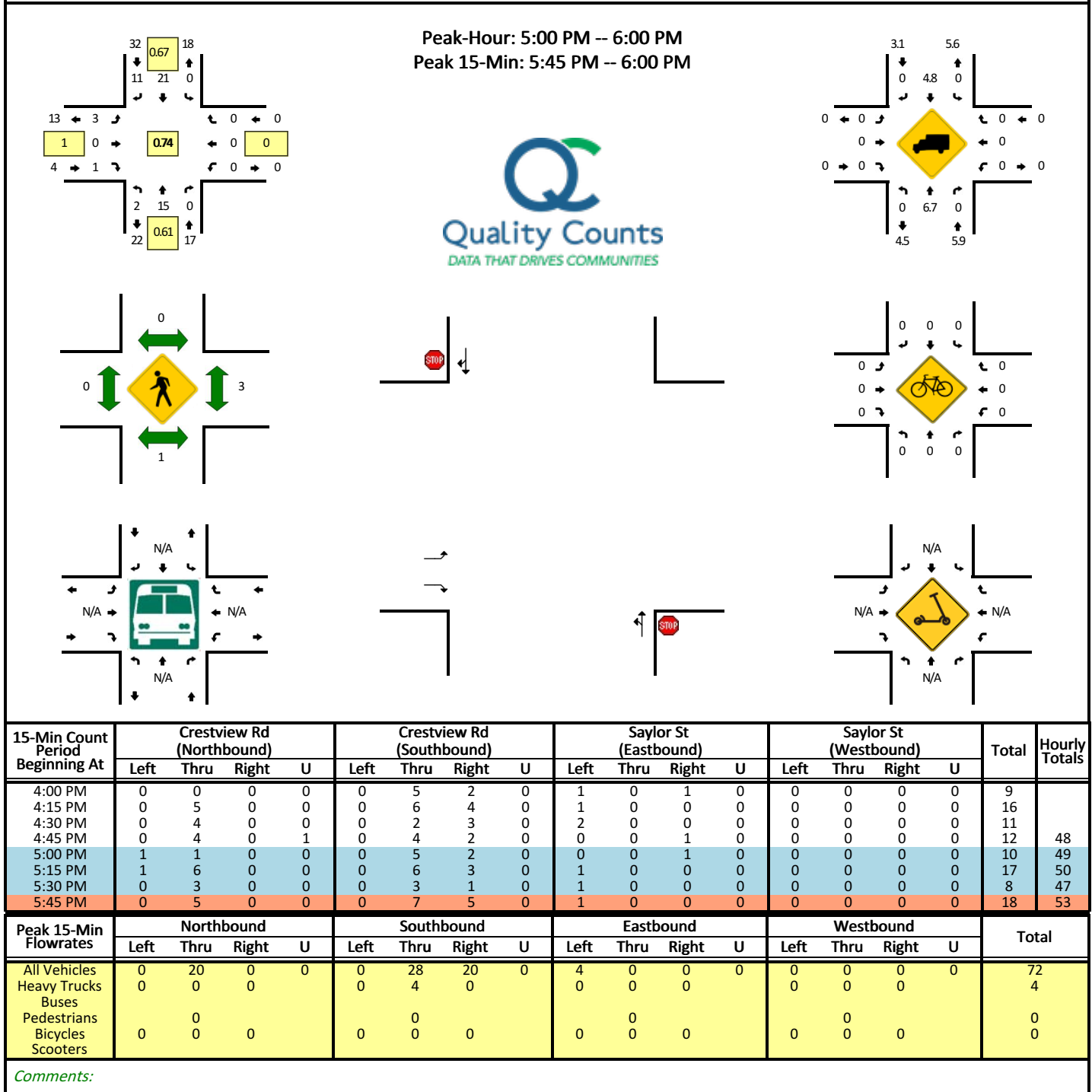


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Crestview Rd -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560206
DATE: Wed, Sep 8 2021

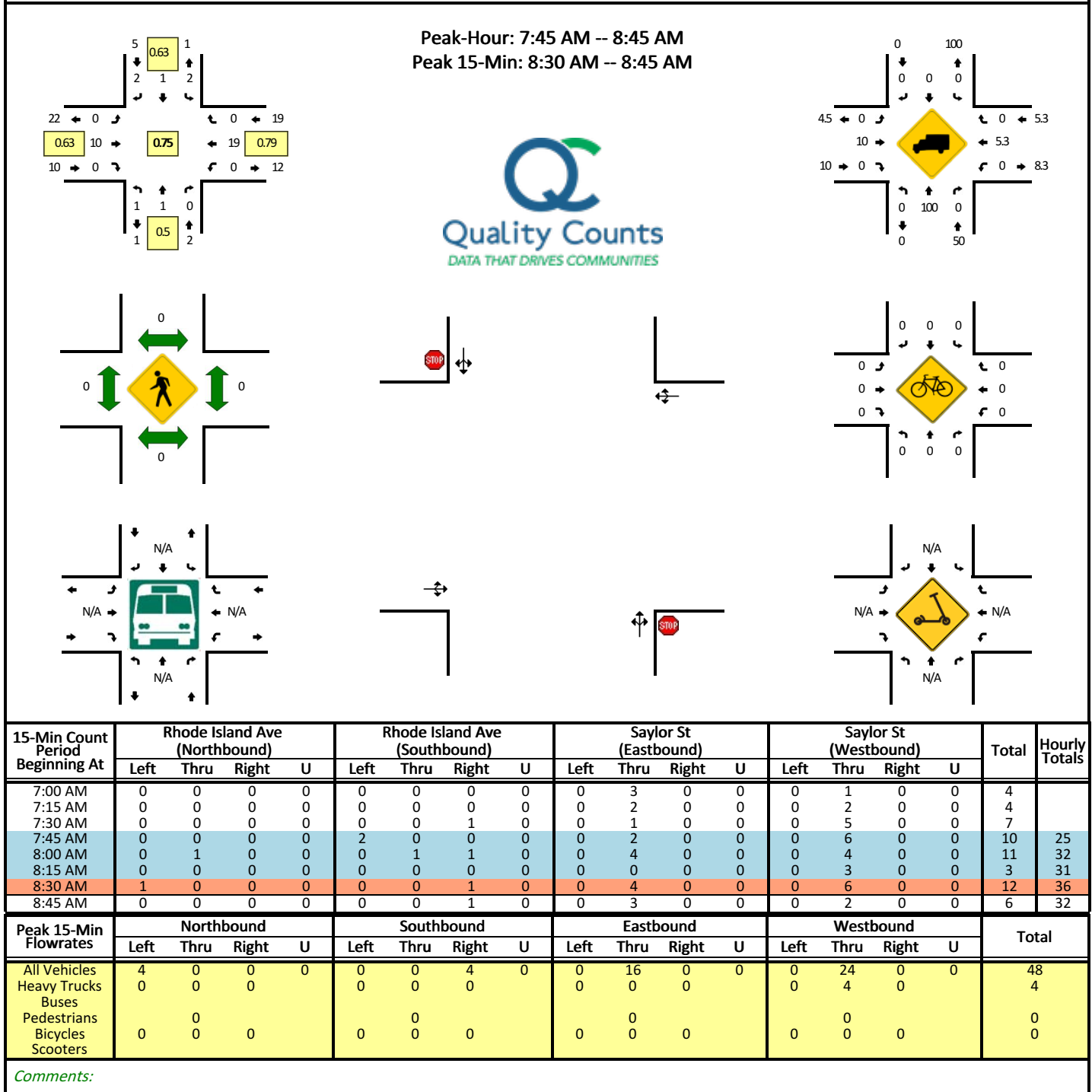


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Rhode Island Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560207
DATE: Wed, Sep 8 2021

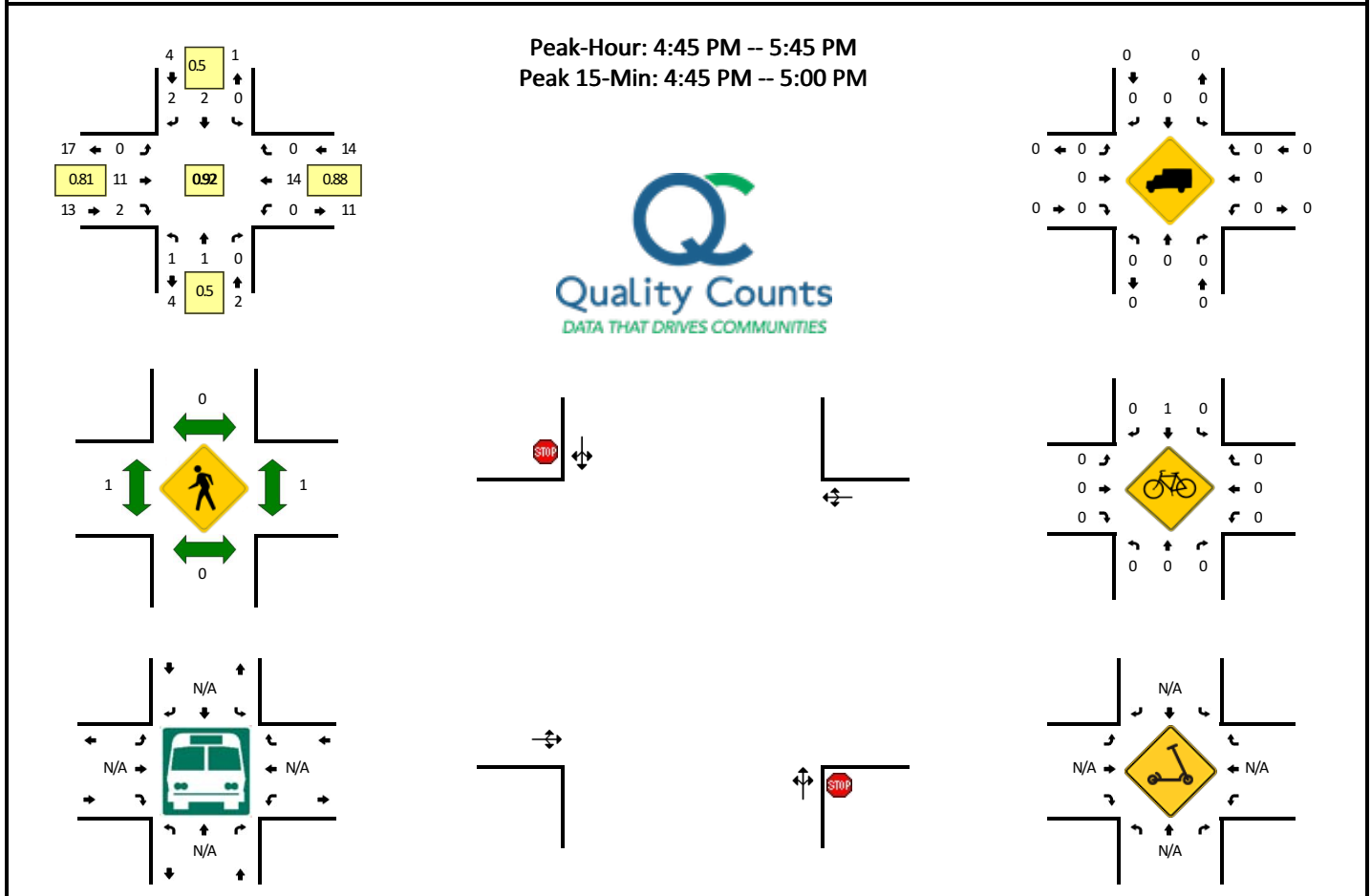


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Rhode Island Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560208
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	Rhode Island Ave (Northbound)				Rhode Island Ave (Southbound)				Saylor St (Eastbound)				Saylor St (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	1	0	0	1	0	0	0	0	4	0	0	6	
4:15 PM	2	0	0	0	1	0	0	0	1	3	0	0	0	3	0	0	10	
4:30 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	3	0	0	6	
4:45 PM	1	0	0	0	0	1	0	0	0	3	0	0	0	4	0	0	9	31
5:00 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	4	0	0	7	32
5:15 PM	0	1	0	0	0	0	1	0	0	3	0	0	0	3	0	0	8	30
5:30 PM	0	0	0	0	0	1	1	0	0	3	1	0	0	3	0	0	9	33
5:45 PM	1	1	0	0	0	0	0	0	0	2	0	0	0	2	1	0	7	31
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	4	0	0	0	0	4	0	0	0	12	0	0	0	16	0	0	36	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4	
Scoters																		

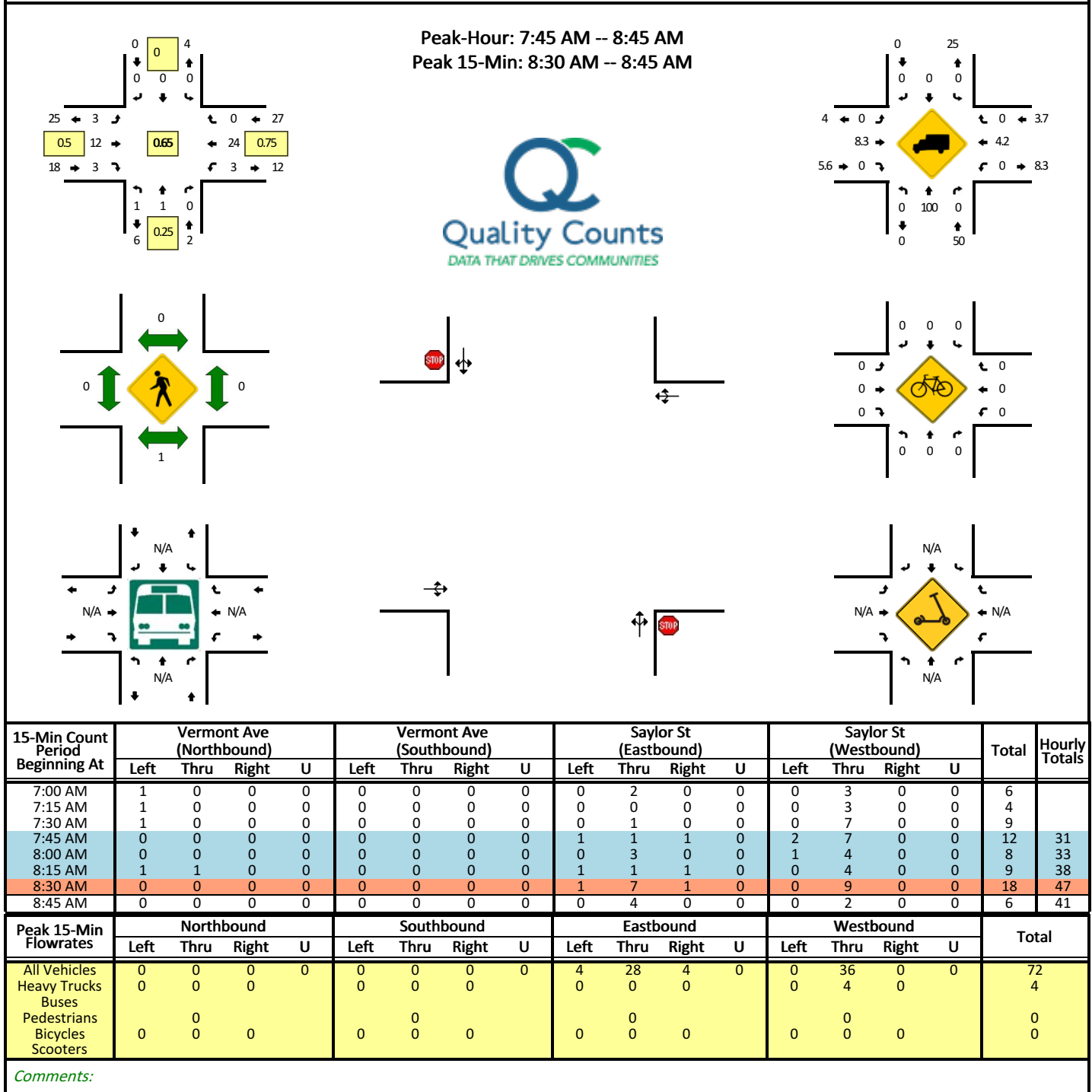
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Vermont Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560209
DATE: Wed, Sep 8 2021

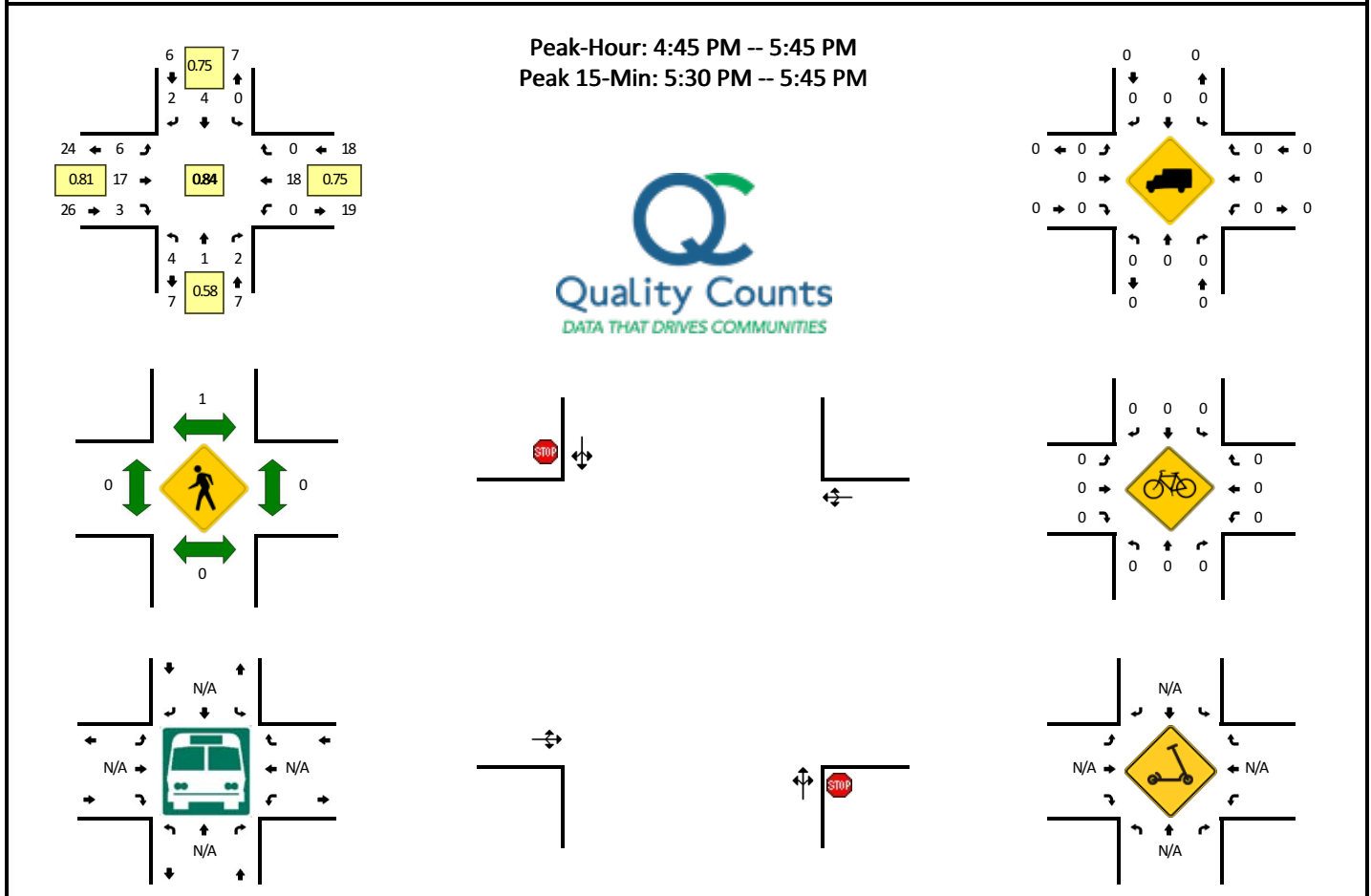


Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Vermont Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560210
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	Vermont Ave (Northbound)				Vermont Ave (Southbound)				Saylor St (Eastbound)				Saylor St (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	0	3	3	0	0	5	0	0	11	
4:15 PM	1	0	0	0	0	0	1	0	0	3	0	0	1	2	1	0	9	
4:30 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	3	0	0	6	
4:45 PM	0	0	0	0	0	2	0	0	2	4	0	0	0	6	0	0	14	40
5:00 PM	1	0	0	0	0	1	1	0	2	3	0	0	0	3	0	0	11	40
5:15 PM	1	0	2	0	0	0	1	0	0	5	2	0	0	4	0	0	15	46
5:30 PM	2	1	0	0	0	1	0	0	2	5	1	0	0	5	0	0	17	57
5:45 PM	1	0	0	0	0	0	0	0	1	3	1	0	0	2	0	0	8	51
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	8	4	0	0	0	4	0	0	8	20	4	0	0	20	0	0	68	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		

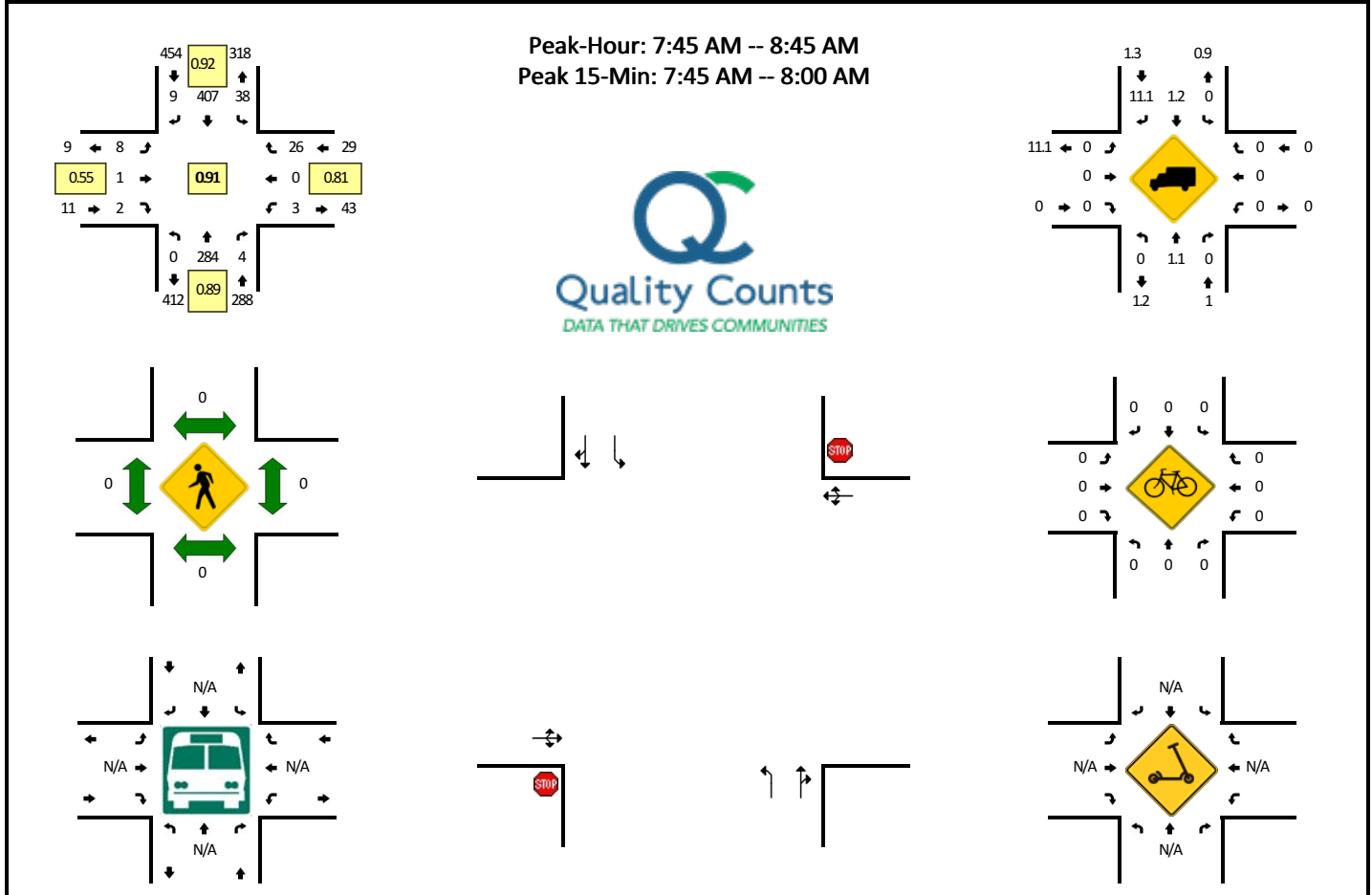
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Pennsylvania Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560211
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	Pennsylvania Ave (Northbound)				Pennsylvania Ave (Southbound)				Saylor St (Eastbound)				Saylor St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	27	1	0	0	34	3	0	3	0	1	0	0	0	5	0	74	
7:15 AM	3	41	0	0	3	58	3	0	1	0	1	0	1	0	6	0	117	
7:30 AM	0	52	0	0	3	84	3	0	1	0	0	0	1	0	11	0	155	
7:45 AM	0	80	1	0	5	117	2	0	2	0	1	0	0	0	6	0	214	560
8:00 AM	0	61	0	0	12	93	4	0	2	0	0	0	1	0	6	0	179	665
8:15 AM	0	78	0	0	5	112	3	0	4	0	1	0	1	0	8	0	212	760
8:30 AM	0	65	3	0	16	85	0	0	0	1	0	0	1	0	6	0	177	782
8:45 AM	1	69	6	0	4	112	4	0	3	0	1	0	2	0	6	0	208	776
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	320	4	0	20	468	8	0	8	0	4	0	0	0	24	0	856	
Heavy Trucks	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scoters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

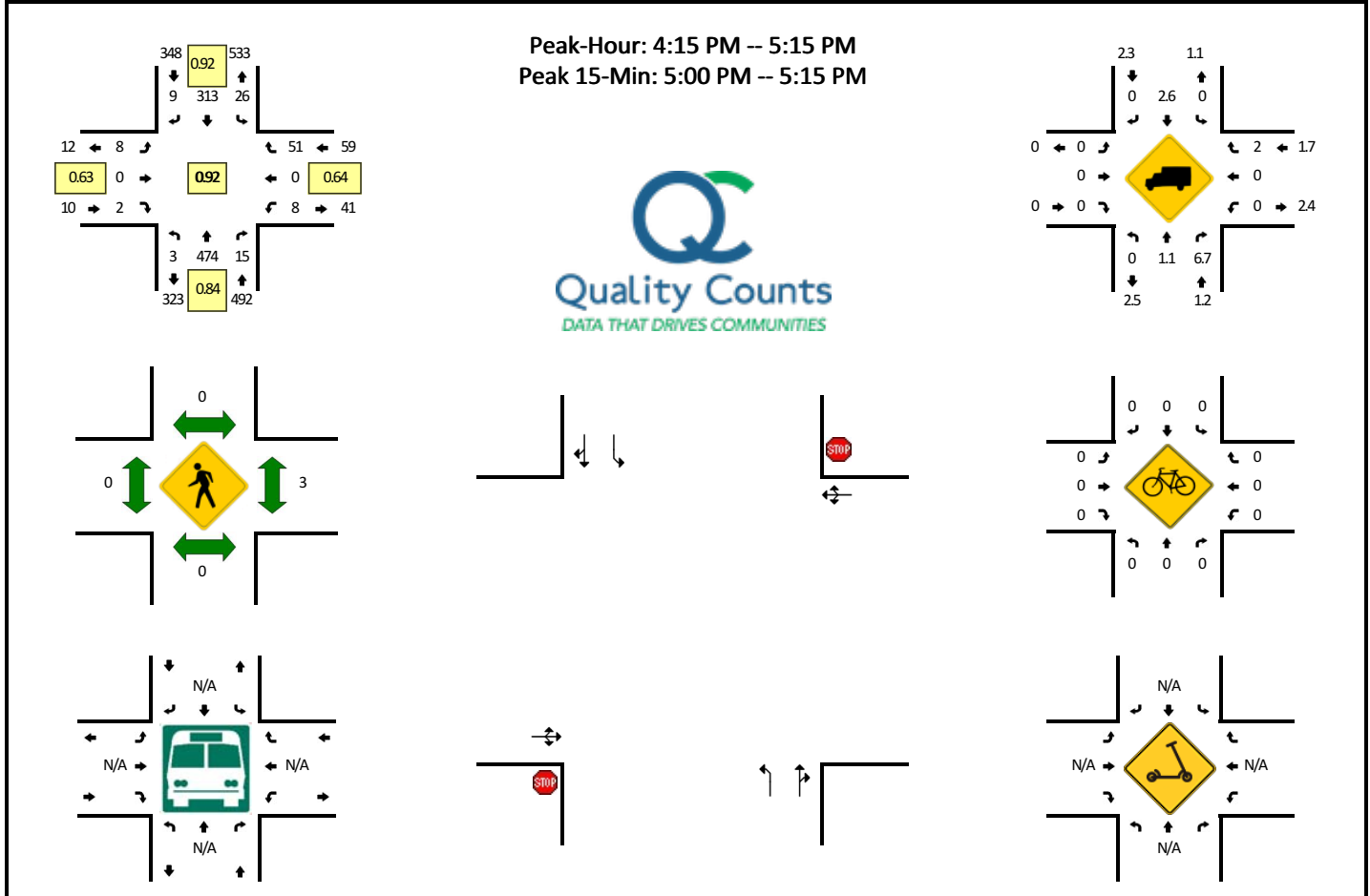
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Pennsylvania Ave -- Saylor St
CITY/STATE: Southern Pines, NC

QC JOB #: 15560212
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	Pennsylvania Ave (Northbound)				Pennsylvania Ave (Southbound)				Saylor St (Eastbound)				Saylor St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	70	3	0	10	75	2	0	2	0	3	0	2	0	18	0	187	
4:15 PM	1	114	8	0	3	89	3	0	2	0	0	0	3	0	11	0	234	
4:30 PM	0	113	2	0	5	88	1	0	1	0	0	0	1	0	8	0	219	
4:45 PM	2	103	3	0	12	70	2	0	2	0	1	0	0	0	13	0	208	848
5:00 PM	0	144	2	0	6	66	3	0	3	0	1	0	4	0	19	0	248	909
5:15 PM	0	86	1	0	8	70	1	0	1	0	1	0	2	0	5	0	175	850
5:30 PM	2	88	2	0	14	73	6	0	1	0	0	0	3	1	7	0	197	828
5:45 PM	1	70	1	0	6	53	4	0	0	0	2	0	1	0	5	0	143	763
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	576	8	0	24	264	12	0	12	0	4	0	16	0	76	0	992	
Heavy Trucks	0	4	0	0	0	12	0	0	0	0	0	0	0	0	0	0	16	
Buses																		
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters																		

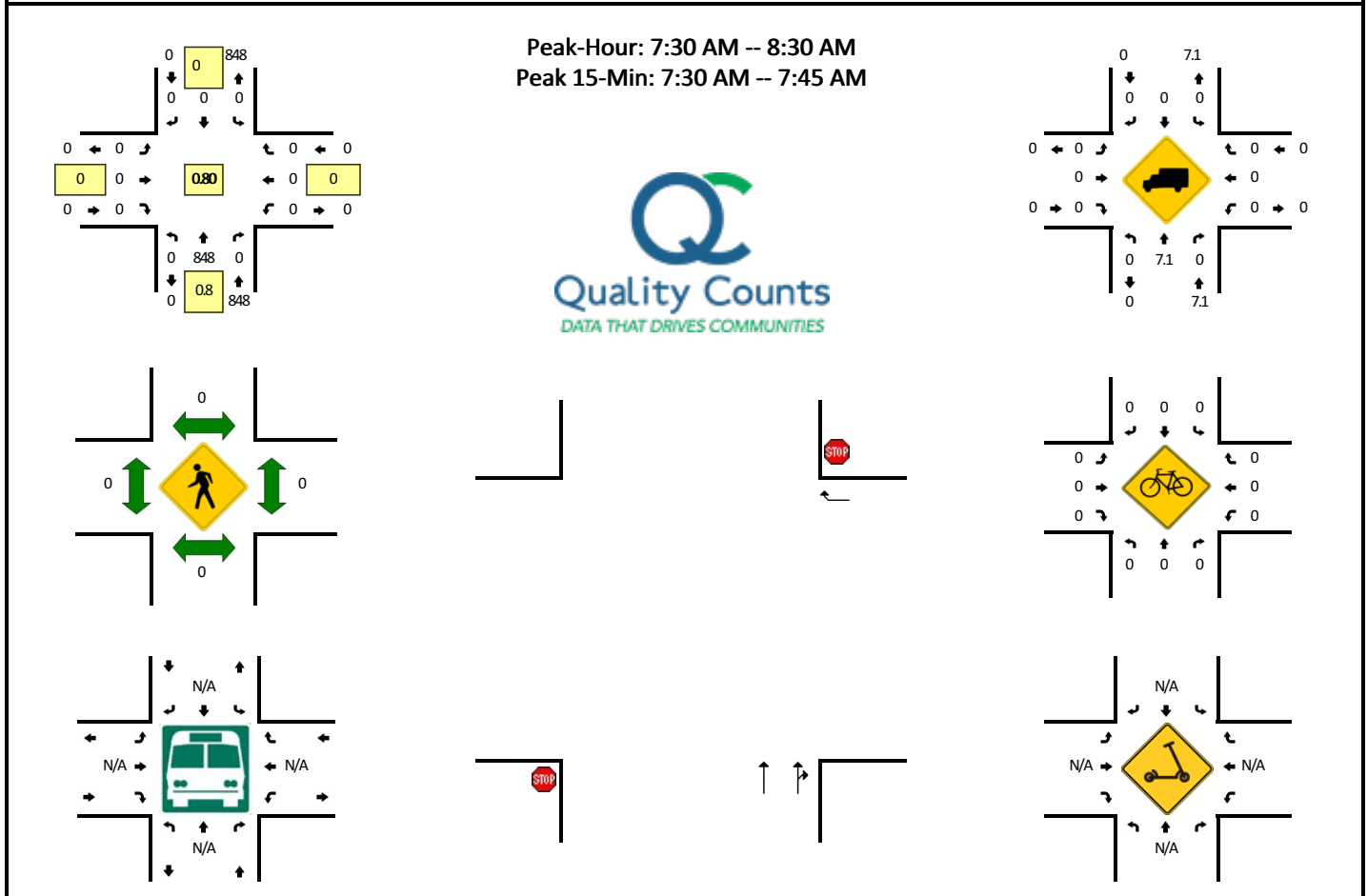
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: US 1 NB -- US 1 Northbound Service Road Access
CITY/STATE: Southern Pines, NC

QC JOB #: 15560213
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	US 1 NB (Northbound)				US 1 NB (Southbound)				US 1 Northbound Service Road Access (Eastbound)				US 1 Northbound Service Road Access (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151	
7:15 AM	0	199	0	0	0	0	0	0	0	0	0	0	0	0	1	0	200	
7:30 AM	0	265	0	0	0	0	0	0	0	0	0	0	0	0	0	0	265	
7:45 AM	0	215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215	831
8:00 AM	0	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	167	847
8:15 AM	0	201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201	848
8:30 AM	0	183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183	766
8:45 AM	0	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	731
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	1060	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1060	
Heavy Trucks	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	
Buses																		
Pedestrians	0	0			0	0			0	0			0	0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

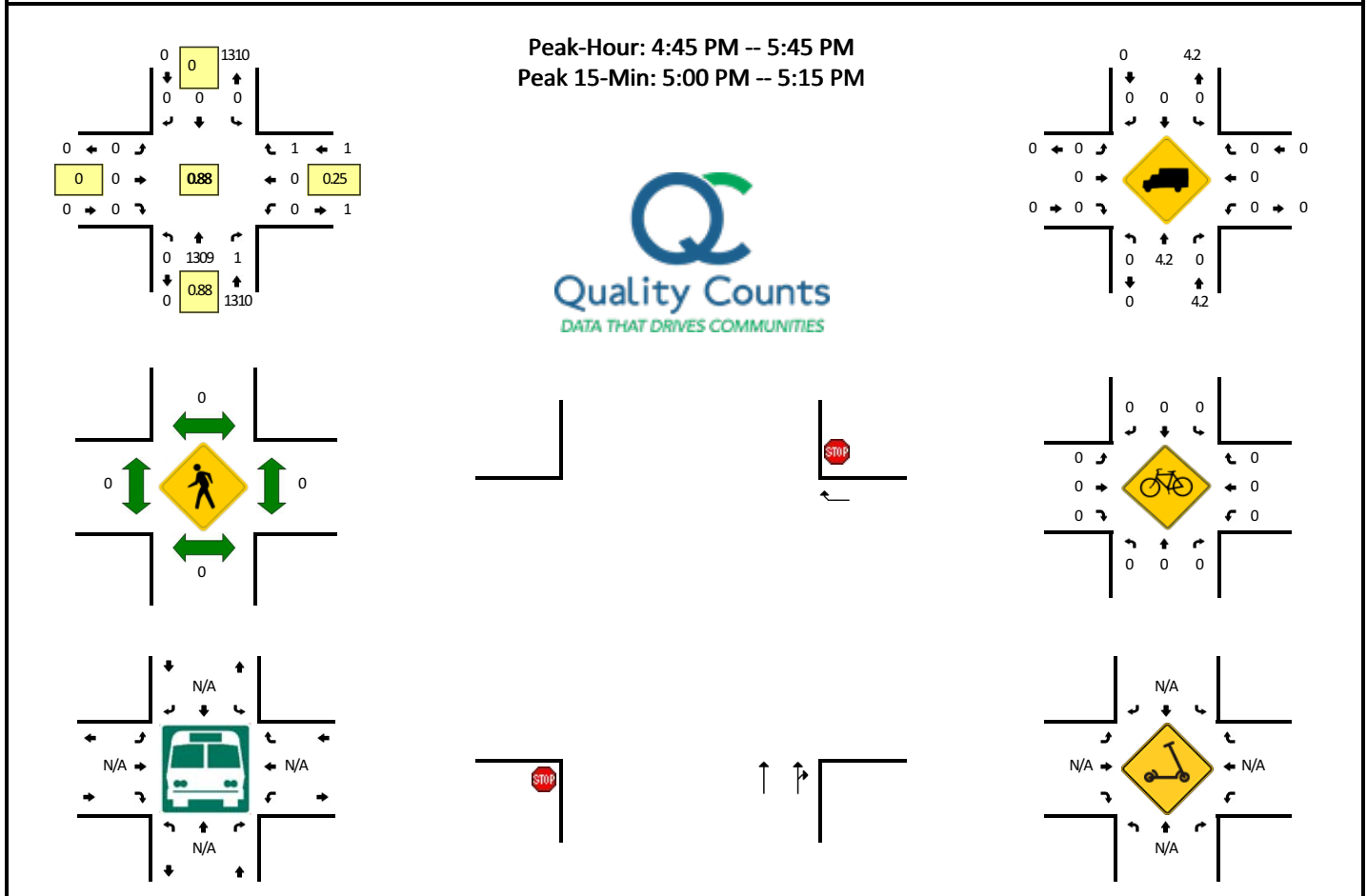
Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: US 1 NB -- US 1 Northbound Service Road Access
CITY/STATE: Southern Pines, NC

QC JOB #: 15560214
DATE: Wed, Sep 8 2021



15-Min Count Period Beginning At	US 1 NB (Northbound)				US 1 NB (Southbound)				US 1 Northbound Service Road Access (Eastbound)				US 1 Northbound Service Road Access (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	260	
4:15 PM	0	274	0	0	0	0	0	0	0	0	0	0	0	0	0	0	274	
4:30 PM	0	275	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	
4:45 PM	0	287	1	0	0	0	0	0	0	0	0	0	0	0	0	0	288	1097
5:00 PM	0	373	0	0	0	0	0	0	0	0	0	0	0	0	1	0	374	1211
5:15 PM	0	336	0	0	0	0	0	0	0	0	0	0	0	0	0	0	336	1273
5:30 PM	0	313	0	0	0	0	0	0	0	0	0	0	0	0	0	0	313	1311
5:45 PM	0	213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	213	1236
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	1492	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1496	
Heavy Trucks	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	
Buses																		
Pedestrians	0	0			0	0			0	0			0	0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		

Comments:

Report generated on 9/13/2021 11:56 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Appendix B: Trip Generation

US 1 Multifamily

Table 1 - Trip Generation

Land Use	Intensity	Daily			AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out	Total	In	Out
221 Multifamily Housing (Mid-Rise)	276 d.u.	2,020	1,010	1,010	93	24	69	117	71	46
710 General Office Building	7,500 s.f.	86	43	43	34	29	5	10	2	8
Total Net New External Trips		2,106	1,053	1,053	127	53	74	127	73	54

Appendix C:

Intersection Spreadsheets

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date: 9/8/2021
 N/S Street: US 1 NB Ramp
 E/W Street: Midland Road

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR
 AM PHF = 0.83

Description	Midland Road Eastbound			Midland Road Westbound			US 1 NB Ramp Northbound			US 1 NB Ramp Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	302	273	0	1	230	26	0	0	30	0	0	333
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	302	273	0	1	230	26	0	0	30	0	0	333
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	48	44	0	0	37	4	0	0	5	0	0	53
2031 Background Traffic	350	317	0	1	267	30	0	0	35	0	0	386
Project Traffic												
Percent Assignment Inbound	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	5	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	19
Total External Site Traffic	0	5	0	0	0	0	0	0	0	0	0	19
Total Project Traffic	0	5	0	0	0	0	0	0	0	0	0	19
2031 Buildout Total	350	322	0	1	267	30	0	0	35	0	0	405
Percent Impact (Approach)	0.7%			0.0%			0.0%			4.7%		

Overall Percent Impact 1.7%

PM PEAK HOUR
 PM PHF = 0.92

Description	Midland Road Eastbound			Midland Road Westbound			US 1 NB Ramp Northbound			US 1 NB Ramp Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	296	218	0	3	291	31	2	0	40	0	0	305
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	296	218	0	3	291	31	2	0	40	0	0	305
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	48	35	0	0	47	5	0	0	6	0	0	49
2031 Background Traffic	344	253	0	3	338	36	2	0	46	0	0	354
Project Traffic												
Percent Assignment Inbound	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	7	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	14
Total External Site Traffic	0	7	0	0	0	0	0	0	0	0	0	14
Total Project Traffic	0	7	0	0	0	0	0	0	0	0	0	14
2031 Buildout Total	344	260	0	3	338	36	2	0	46	0	0	368
Percent Impact (Approach)	1.2%			0.0%			0.0%			3.8%		

Overall Percent Impact 1.5%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date: 9/8/2021
 N/S Street: Crestview Road
 E/W Street: Midland Road

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.87

Description	Midland Road Eastbound			Midland Road Westbound			Crestview Road Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	35	250	22	1	203	4	19	2	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	35	250	22	1	203	4	19	2	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	6	40	4	0	33	1	3	0	0	0	0	0
2031 Background Traffic	41	290	26	1	236	5	22	2	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	5	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	5	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	5	0	0	0	0	0	0	0	0	0
2031 Buildout Total	41	290	31	1	236	5	22	2	0	0	0	0
Percent Impact (Approach)		1.4%			0.0%			0.0%			-	
Overall Percent Impact	0.8%											

PM PEAK HOUR PM PHF = 0.90

Description	Midland Road Eastbound			Midland Road Westbound			Crestview Road Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	35	194	29	1	254	5	16	3	1	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	35	194	29	1	254	5	16	3	1	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	6	31	5	0	41	1	3	0	0	0	0	0
2031 Background Traffic	41	225	34	1	295	6	19	3	1	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	7	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	7	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	7	0	0	0	0	0	0	0	0	0
2031 Buildout Total	41	225	41	1	295	6	19	3	1	0	0	0
Percent Impact (Approach)		2.3%			0.0%			0.0%			-	
Overall Percent Impact	1.1%											

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: **US 1 Multifamily**
 Location: **Southern Pines, NC**
 Ct. Date: **9/8/2021**
 N/S Street: **Crestview Road**
 E/W Street: **N Saylor Street**

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.90

Description	N Saylor Street Eastbound			Westbound			Crestview Road Northbound			Crestview Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	9	0	4	0	0	0	1	12	0	1	18	9
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	9	0	4	0	0	0	1	12	0	1	18	9
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	1	0	1	0	0	0	0	2	0	0	3	1
2031 Background Traffic	10	0	5	0	0	0	1	14	0	1	21	10
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	5
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	0	0	0	0	0	0	0	0	5
Total Project Traffic	0	0	0	0	0	0	0	0	0	0	0	5
2031 Buildout Total	10	0	5	0	0	0	1	14	0	1	21	15
Percent Impact (Approach)	0.0%			-			0.0%			13.5%		

Overall Percent Impact 7.5%

PM PEAK HOUR PM PHF = 0.74

Description	N Saylor Street Eastbound			Westbound			Crestview Road Northbound			Crestview Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	1	0	3	0	0	0	2	15	0	0	21	11
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	1	0	3	0	0	0	2	15	0	0	21	11
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	2	0	0	3	2
2031 Background Traffic	1	0	3	0	0	0	2	17	0	0	24	13
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	7
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	0	0	0	0	0	0	0	0	7
Total Project Traffic	0	0	0	0	0	0	0	0	0	0	0	7
2031 Buildout Total	1	0	3	0	0	0	2	17	0	0	24	20
Percent Impact (Approach)	0.0%			-			0.0%			15.9%		

Overall Percent Impact 10.4%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
Location: Southern Pines, NC
Ct. Date: 9/8/2019
N/S Street: W Rhode Island Avenue
E/W Street: N Saylor Street

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR **AM PHF = 0.75**

Description	N Saylor Street <u>Eastbound</u>			N Saylor Street <u>Westbound</u>			W Rhode Island Avenue <u>Northbound</u>			W Rhode Island Avenue <u>Southbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	10	0	0	19	0	1	1	0	2	1	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	10	0	0	19	0	1	1	0	2	1	2
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	2	0	0	3	0	0	0	0	0	0	0
2031 Background Traffic	0	12	0	0	22	0	1	1	0	2	1	2
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	5	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	0	5	0	0	0	0	0	0	0
Total Project Traffic	0	0	0	0	5	0	0	0	0	0	0	0
2031 Buildout Total	0	12	0	0	27	0	1	1	0	2	1	2
Percent Impact (Approach)	0.0%			18.5%			0.0%			0.0%		

Overall Percent Impact 10.9%

PM PEAK HOUR **PM PHF = 0.92**

Description	N Saylor Street <u>Eastbound</u>			N Saylor Street <u>Westbound</u>			W Rhode Island Avenue <u>Northbound</u>			W Rhode Island Avenue <u>Southbound</u>		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	11	2	0	14	0	1	1	0	0	2	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	11	2	0	14	0	1	1	0	0	2	2
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	2	0	0	2	0	0	0	0	0	0	0
2031 Background Traffic	0	13	2	0	16	0	1	1	0	0	2	2
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	7	0	0	0	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	0	7	0	0	0	0	0	0	0
Total Project Traffic	0	0	0	0	7	0	0	0	0	0	0	0
2031 Buildout Total	0	13	2	0	23	0	1	1	0	0	2	2
Percent Impact (Approach)	0.0%			30.4%			0.0%			0.0%		

Overall Percent Impact 15.9%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: **US 1 Multifamily**
 Location: **Southern Pines, NC**
 Ct. Date: **9/8/2021**
 N/S Street: **W Vermont Avenue**
 E/W Street: **N Saylor Street**

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.65

Description		N Saylor Street <u>Eastbound</u>			N Saylor Street <u>Westbound</u>			W Vermont Avenue <u>Northbound</u>			W Vermont Avenue <u>Southbound</u>		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	3	12	3	3	24	0	1	1	0	0	0	0
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	3	12	3	3	24	0	1	1	0	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	0	2	0	0	4	0	0	0	0	0	0	0
2031	Background Traffic	3	14	3	3	28	0	1	1	0	0	0	0
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	5	0	0	0	0	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic		0	0	0	0	5	0	0	0	0	0	0	0
Total Project Traffic		0	0	0	0	5	0	0	0	0	0	0	0
2031	Buildout Total	3	14	3	3	33	0	1	1	0	0	0	0
Percent Impact (Approach)		0.0%			13.9%			0.0%			-		

PM PEAK HOUR PM PHF = 0.84

Description		N Saylor Street <u>Eastbound</u>			N Saylor Street <u>Westbound</u>			W Vermont Avenue <u>Northbound</u>			W Vermont Avenue <u>Southbound</u>		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	6	17	3	0	18	0	4	1	2	0	4	2
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	6	17	3	0	18	0	4	1	2	0	4	2
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	1	3	0	0	3	0	1	0	0	0	1	0
2031	Background Traffic	7	20	3	0	21	0	5	1	2	0	5	2
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	7	0	0	0	0	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	0	0	0	0	0	0	0
Total External Site Traffic		0	0	0	0	7	0	0	0	0	0	0	0
Total Project Traffic		0	0	0	0	7	0	0	0	0	0	0	0
2031	Buildout Total	7	20	3	0	28	0	5	1	2	0	5	2
Percent Impact (Approach)		0.0%			25.0%			0.0%			0.0%		

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: **US 1 Multifamily**
 Location: **Southern Pines, NC**
 Ct. Date: **9/8/2021**
 N/S Street: **W Pennsylvania Avenue**
 E/W Street: **N Saylor Street/Private Drive**

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.91

Description	Private Drive Eastbound			N Saylor Street Westbound			W Pennsylvania Avenue Northbound			W Pennsylvania Avenue Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	8	1	2	3	0	26	0	284	4	38	407	9
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	8	1	2	3	0	26	0	284	4	38	407	9
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	1	0	0	0	0	4	0	46	1	6	65	1
2031 Background Traffic	9	1	2	3	0	30	0	330	5	44	472	10
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	10.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	16	5	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	30.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	22	0	26	0	0	0	0	0	0
Total External Site Traffic	0	0	0	22	0	26	0	0	16	5	0	0
Total Project Traffic	0	0	0	22	0	26	0	0	16	5	0	0
2031 Buildout Total	9	1	2	25	0	56	0	330	21	49	472	10
Percent Impact (Approach)	0.0%			59.3%			4.6%			0.9%		

Overall Percent Impact 7.1%

PM PEAK HOUR PM PHF = 0.92

Description	Private Drive Eastbound			N Saylor Street Westbound			W Pennsylvania Avenue Northbound			W Pennsylvania Avenue Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	8	0	2	8	0	51	3	474	15	26	313	9
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	8	0	2	8	0	51	3	474	15	26	313	9
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	1	0	0	1	0	8	0	76	2	4	50	1
2031 Background Traffic	9	0	2	9	0	59	3	550	17	30	363	10
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	10.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	22	7	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	30.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	16	0	19	0	0	0	0	0	0
Total External Site Traffic	0	0	0	16	0	19	0	0	22	7	0	0
Total Project Traffic	0	0	0	16	0	19	0	0	22	7	0	0
2031 Buildout Total	9	0	2	25	0	78	3	550	39	37	363	10
Percent Impact (Approach)	0.0%			34.0%			3.7%			1.7%		

Overall Percent Impact 5.7%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date: 9/8/2021
 N/S Street: US 1 NB
 E/W Street: US 1 NB Service Road Access

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF = 0.80

Description		Eastbound			US 1 NB Service Road Access			US 1 NB			US 1 NB		
		Left	Through	Right	Westbound			Northbound			Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	0	0	0	0	0	0	0	848	0	0	0	0
Count Balancing		0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	0	0	0	0	0	0	0	848	0	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	0	0	0	0	0	0	0	136	0	0	0	0
2031	Background Traffic	0	0	0	0	0	0	0	984	0	0	0	0
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	0	0	0	0	27	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	26	0	0	0	0	0	0
Total External Site Traffic		0	0	0	0	0	26	0	0	27	0	0	0
Total Project Traffic		0	0	0	0	0	26	0	0	27	0	0	0
2031	Buildout Total	0	0	0	0	0	26	0	984	27	0	0	0
Percent Impact (Approach)		-			100.0%			2.7%			-		

PM PEAK HOUR PM PHF = 0.88

Description		0			US 1 NB Service Road Access			US 1 NB			US 1 NB		
		Eastbound			Westbound			Northbound			Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021	Traffic Count	0	0	0	0	0	1	0	1309	1	0	0	0
	Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021	Existing Traffic	0	0	0	0	0	1	0	1309	1	0	0	0
Growth Factor (0.015 per year)		0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031	Background Growth	0	0	0	0	0	0	0	210	0	0	0	0
2031	Background Traffic	0	0	0	0	0	1	0	1519	1	0	0	0
Project Traffic													
Percent Assignment Inbound		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%
Inbound Project Traffic		0	0	0	0	0	0	0	0	37	0	0	0
Percent Assignment Outbound		0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic		0	0	0	0	0	19	0	0	0	0	0	0
Total External Site Traffic		0	0	0	0	0	19	0	0	37	0	0	0
Total Project Traffic		0	0	0	0	0	19	0	0	37	0	0	0
2031	Buildout Total	0	0	0	0	0	20	0	1519	38	0	0	0
Percent Impact (Approach)		-			95.0%			2.4%			-		

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date:
 N/S Street: US 1 NB Service Road
 E/W Street: Site Driveway #1

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR

AM PHF =

Description	Eastbound			Site Driveway #1 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	20.00%	5.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	16	10	3	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	20.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	45.00%	0.00%
Outbound Project Traffic	0	0	0	15	0	4	0	0	0	0	33	0
Total External Site Traffic	0	0	0	15	0	4	0	16	10	3	33	0
Total Project Traffic	0	0	0	15	0	4	0	16	10	3	33	0
2031 Buildout Total	0	0	0	15	0	4	0	16	10	3	33	0
Percent Impact (Approach)	-			100.0%			100.0%			100.0%		

Overall Percent Impact 100.0%

PM PEAK HOUR

PM PHF =

Description	Eastbound			Site Driveway #1 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	20.00%	5.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	22	14	4	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	20.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	45.00%	0.00%
Outbound Project Traffic	0	0	0	10	0	3	0	0	0	0	24	0
Total External Site Traffic	0	0	0	10	0	3	0	22	14	4	24	0
Total Project Traffic	0	0	0	10	0	3	0	22	14	4	24	0
2031 Buildout Total	0	0	0	10	0	3	0	22	14	4	24	0
Percent Impact (Approach)	-			100.0%			100.0%			100.0%		

Overall Percent Impact 100.0%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date:
 N/S Street: US 1 NB Service Road
 E/W Street: Site Driveway #2

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR

AM PHF =

Description	Eastbound			Site Driveway #2 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	20.00%	35.00%	5.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	5	11	19	3	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	35.00%	0.00%	20.00%	0.00%	5.00%	0.00%	0.00%	10.00%	0.00%
Outbound Project Traffic	0	0	0	26	0	15	0	4	0	0	7	0
Total External Site Traffic	0	0	0	26	0	15	0	9	11	19	10	0
Total Project Traffic	0	0	0	26	0	15	0	9	11	19	10	0
2031 Buildout Total	0	0	0	26	0	15	0	9	11	19	10	0
Percent Impact (Approach)	-			100.0%			100.0%			100.0%		

Overall Percent Impact 100.0%

PM PEAK HOUR

PM PHF =

Description	Eastbound			Site Driveway #2 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	20.00%	35.00%	5.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	7	15	26	4	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	35.00%	0.00%	20.00%	0.00%	5.00%	0.00%	0.00%	10.00%	0.00%
Outbound Project Traffic	0	0	0	19	0	11	0	3	0	0	5	0
Total External Site Traffic	0	0	0	19	0	11	0	10	15	26	9	0
Total Project Traffic	0	0	0	19	0	11	0	10	15	26	9	0
2031 Buildout Total	0	0	0	19	0	11	0	10	15	26	9	0
Percent Impact (Approach)	-			100.0%			100.0%			100.0%		

Overall Percent Impact 100.0%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date:
 N/S Street: US 1 NB Service Road
 E/W Street: US 1 NB Service Road Access

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR AM PHF =

Description	US 1 NB Service Road Access Eastbound			US 1 NB Service Road Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	10.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	5	0	21	0	0	0	0	5	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	10.00%	10.00%
Outbound Project Traffic	0	0	0	0	0	0	19	0	0	0	7	7
Total External Site Traffic	5	0	21	0	0	0	19	5	0	0	7	7
Total Project Traffic	5	0	21	0	0	0	19	5	0	0	7	7
2031 Buildout Total	5	0	21	0	0	0	19	5	0	0	7	7
Percent Impact (Approach)	100.0%			-			100.0%			100.0%		

Overall Percent Impact 100.0%

PM PEAK HOUR PM PHF =

Description	US 1 NB Service Road Access Eastbound			US 1 NB Service Road Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	10.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	7	0	29	0	0	0	0	7	0	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	10.00%	10.00%
Outbound Project Traffic	0	0	0	0	0	0	14	0	0	0	5	5
Total External Site Traffic	7	0	29	0	0	0	14	7	0	0	5	5
Total Project Traffic	7	0	29	0	0	0	14	7	0	0	5	5
2031 Buildout Total	7	0	29	0	0	0	14	7	0	0	5	5
Percent Impact (Approach)	100.0%			-			100.0%			100.0%		

Overall Percent Impact 100.0%

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10/14/21

INTERSECTION ANALYSIS SHEET

Project: US 1 Multifamily
 Location: Southern Pines, NC
 Ct. Date:
 N/S Street: US 1 NB Service Road
 E/W Street: Site Driveway #3

	AM In	AM Out	PM In	PM Out
Net New Trips:	53	74	73	54
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	1.5%	Existing Year:	2021
Growth Factor:	0.160541	Buildout Year:	2031

AM PEAK HOUR

AM PHF =

Description	Eastbound			Site Driveway #3 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	10	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	14	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	14	0	0	0	0	10	0	0	0
Total Project Traffic	0	0	0	14	0	0	0	0	10	0	0	0
2031 Buildout Total	0	0	0	14	0	0	0	0	10	0	0	0
Percent Impact (Approach)	-	-	-	100.0%	-	-	100.0%	-	-	-	-	-

Overall Percent Impact 100.0%

PM PEAK HOUR

PM PHF =

Description	Eastbound			Site Driveway #3 Westbound			US 1 NB Service Road Northbound			US 1 NB Service Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2021 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2021 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor (0.015 per year)	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
2031 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2031 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic												
Percent Assignment Inbound	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%
Inbound Project Traffic	0	0	0	0	0	0	0	0	14	0	0	0
Percent Assignment Outbound	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Outbound Project Traffic	0	0	0	11	0	0	0	0	0	0	0	0
Total External Site Traffic	0	0	0	11	0	0	0	0	14	0	0	0
Total Project Traffic	0	0	0	11	0	0	0	0	14	0	0	0
2031 Buildout Total	0	0	0	11	0	0	0	0	14	0	0	0
Percent Impact (Approach)	-	-	-	100.0%	-	-	100.0%	-	-	-	-	-

Overall Percent Impact 100.0%

\\kimley-horn.com\se_dur\ral_tpto_traffic\014362000 us 1 multifamily\t4 - analysis\[us 1 multifamily - tia data sheet.xls]int. #11 us1srv@sitedwy#3

10/14/21

Appendix D:
Synchro Output:
Existing (2021)

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Existing AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	30	0	4	0	0	0	0	0	273	4
Future Volume (vph)	0	0	30	0	4	0	0	0	0	0	273	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)			2									1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	36	0	5	0	0	0	0	0	334	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↗						↗	
Traffic Vol, veh/h	0	0	30	0	4	0	0	0	0	0	273	4
Future Vol, veh/h	0	0	30	0	4	0	0	0	0	0	273	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	36	0	5	0	0	0	0	0	329	5

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	-	332	-	334	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	334	-
Critical Hdwy	-	-	6.27	-	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	3.363	-	4.018	-
Pot Cap-1 Maneuver	0	0	698	0	586	0
Stage 1	0	0	-	0	-	0
Stage 2	0	0	-	0	643	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	698	-	586	-
Mov Cap-2 Maneuver	-	-	-	-	586	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	SB
HCM Control Delay, s	10.4	11.2	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	698	586	-	-
HCM Lane V/C Ratio	0.052	0.008	-	-
HCM Control Delay (s)	10.4	11.2	-	-
HCM Lane LOS	B	B	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Existing AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	302	0	0	0	333	0	230	26	0	0	0
Future Volume (vph)	0	302	0	0	0	333	0	230	26	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	364	0	0	0	401	0	308	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 57.4%	ICU Level of Service B											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	12.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	302	0	0	0	333	0	230	26	0	0	0
Future Vol, veh/h	0	302	0	0	0	333	0	230	26	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	364	0	0	0	401	0	277	31	0	0	0

Major/Minor	Minor2		Minor1		Major1	
Conflicting Flow All	-	308	-	-	-	293
Stage 1	-	0	-	-	-	-
Stage 2	-	308	-	-	-	-
Critical Hdwy	-	6.52	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.52	-	-	-	-
Follow-up Hdwy	-	4.018	-	-	-	3.318
Pot Cap-1 Maneuver	0	606	0	0	0	746
Stage 1	0	-	0	0	0	-
Stage 2	0	660	0	0	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	606	-	-	-	746
Mov Cap-2 Maneuver	-	606	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	660	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	19.5	15.3	0
HCM LOS	C	C	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	606	746
HCM Lane V/C Ratio	-	-	0.6	0.538
HCM Control Delay (s)	-	-	19.5	15.3
HCM Lane LOS	-	-	C	C
HCM 95th %tile Q(veh)	-	-	4	3.2

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	19	4	4	203	250	22
Future Volume (vph)	19	4	4	203	250	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1618	0	0	3468	3497	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1618	0	0	3468	3497	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	10%	10%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	0	238	312	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.8%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	4	4	203	250	22
Future Vol, veh/h	19	4	4	203	250	22
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	10	4	4	2	2
Mvmt Flow	22	5	5	233	287	25
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	428	158	313	0	-	0
Stage 1	301	-	-	-	-	-
Stage 2	127	-	-	-	-	-
Critical Hdwy	7	7.1	4.18	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.24	-	-	-
Pot Cap-1 Maneuver	535	835	1230	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	531	833	1229	-	-	-
Mov Cap-2 Maneuver	531	-	-	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.7	0.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1229	-	567	-	-	
HCM Lane V/C Ratio	0.004	-	0.047	-	-	
HCM Control Delay (s)	7.9	0	11.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	18	9	4	12	9	4
Future Volume (vph)	18	9	4	12	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1635	0	0	1840	1534	0
Flt Permitted				0.988	0.966	
Satd. Flow (perm)	1635	0	0	1840	1534	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1282	1990	
Travel Time (s)	25.7			35.0	54.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	2%	2%	15%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	17	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 14.1%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	18	9	4	12	9	4
Future Vol, veh/h	18	9	4	12	9	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	11	11	2	2	15	15
Mvmt Flow	20	10	4	13	10	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	30	0	46	25
Stage 1	-	-	-	-	25	-
Stage 2	-	-	-	-	21	-
Critical Hdwy	-	-	4.12	-	6.55	6.35
Critical Hdwy Stg 1	-	-	-	-	5.55	-
Critical Hdwy Stg 2	-	-	-	-	5.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.435
Pot Cap-1 Maneuver	-	-	1583	-	932	1015
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	969	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1583	-	929	1015
Mov Cap-2 Maneuver	-	-	-	-	929	-
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	966	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		8.8	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	954		-	-	1583	-
HCM Lane V/C Ratio	0.015		-	-	0.003	-
HCM Control Delay (s)	8.8		-	-	7.3	0
HCM Lane LOS	A		-	-	A	A
HCM 95th %tile Q(veh)	0		-	-	0	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	10	4	4	19	4
Future Volume (vph)	4	4	4	4	4	4	4	10	4	4	19	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1659	0	0	1763	0
Flt Permitted		0.984			0.984			0.989			0.993	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1659	0	0	1763	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	10%	10%	10%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	15	0	0	23	0	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	4	4	4	4	4	4	10	4	4	19	4
Future Vol, veh/h	4	4	4	4	4	4	4	10	4	4	19	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	50	50	50	10	10	10	5	5	5
Mvmt Flow	5	5	5	5	5	5	5	13	5	5	25	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	69	66	28	69	66	16	30	0	0	18	0	0
Stage 1	38	38	-	26	26	-	-	-	-	-	-	-
Stage 2	31	28	-	43	40	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.2	-	-	4.15	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.29	-	-	2.245	-	-
Pot Cap-1 Maneuver	923	825	1047	818	741	940	1533	-	-	1579	-	-
Stage 1	977	863	-	881	787	-	-	-	-	-	-	-
Stage 2	986	872	-	862	776	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	908	820	1047	806	737	940	1533	-	-	1579	-	-
Mov Cap-2 Maneuver	908	820	-	806	737	-	-	-	-	-	-	-
Stage 1	974	860	-	878	785	-	-	-	-	-	-	-
Stage 2	971	869	-	850	774	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	9			9.5			1.6			1.1		
HCM LOS	A			A								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1533	-	-	916	819	1579	-	-
HCM Lane V/C Ratio	0.003	-	-	0.017	0.02	0.003	-	-
HCM Control Delay (s)	7.4	0	-	9	9.5	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	12	4	4	24	4
Future Volume (vph)	4	4	4	4	4	4	4	12	4	4	24	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1727	0	0	1785	0
Flt Permitted		0.984			0.984			0.990			0.994	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1727	0	0	1785	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)				1		1			1	1		
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	6%	6%	6%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	18	0	0	30	0	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	12	4	4	24	4
Future Vol, veh/h	4	4	4	4	4	4	4	12	4	4	24	4
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	50	50	50	6	6	6	4	4	4
Mvmt Flow	6	6	6	6	6	6	6	18	6	6	37	6
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	92	89	41	93	89	23	43	0	0	25	0	0
Stage 1	52	52	-	34	34	-	-	-	-	-	-	-
Stage 2	40	37	-	59	55	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	892	801	1030	788	719	931	1540	-	-	1577	-	-
Stage 1	961	852	-	872	781	-	-	-	-	-	-	-
Stage 2	975	864	-	845	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	874	794	1029	772	713	929	1540	-	-	1575	-	-
Mov Cap-2 Maneuver	874	794	-	772	713	-	-	-	-	-	-	-
Stage 1	957	849	-	868	777	-	-	-	-	-	-	-
Stage 2	956	860	-	830	761	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.1			9.6			1.5			0.9		
HCM LOS	A			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1540	-	-	889	795	1575	-	-				
HCM Lane V/C Ratio	0.004	-	-	0.021	0.023	0.004	-	-				
HCM Control Delay (s)	7.3	0	-	9.1	9.6	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

US 1 Multifamily
7: Shopping Center Dwy/N Saylor Street & W Pennsylvania Ave

Existing AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	407	9	4	284	4	8	4	4	4	4	26
Future Volume (vph)	38	407	9	4	284	4	8	4	4	4	4	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1857	0	1770	1859	0	0	1756	0	0	1657	0
Flt Permitted	0.950			0.950				0.974			0.995	
Satd. Flow (perm)	1770	1857	0	1770	1859	0	0	1756	0	0	1657	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	457	0	4	316	0	0	17	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 38.6%

ICU Level of Service A

Analysis Period (min) 15

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	407	9	4	284	4	8	4	4	4	4	26
Future Vol, veh/h	38	407	9	4	284	4	8	4	4	4	4	26
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	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	447	10	4	312	4	9	4	4	4	4	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	316	0	0	457	0	0	875	860	452	862	863	314
Stage 1	-	-	-	-	-	-	536	536	-	322	322	-
Stage 2	-	-	-	-	-	-	339	324	-	540	541	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1244	-	-	1104	-	-	270	294	608	275	292	726
Stage 1	-	-	-	-	-	-	529	523	-	690	651	-
Stage 2	-	-	-	-	-	-	676	650	-	526	521	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1244	-	-	1104	-	-	249	283	608	262	281	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	249	283	-	262	281	-
Stage 1	-	-	-	-	-	-	511	505	-	667	648	-
Stage 2	-	-	-	-	-	-	643	647	-	500	503	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	17.6	12.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	303	1244	-	-	1104	-	-	521
HCM Lane V/C Ratio	0.058	0.034	-	-	0.004	-	-	0.072
HCM Control Delay (s)	17.6	8	-	-	8.3	-	-	12.4
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.2

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Existing AM
09/16/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	848	4	0	0
Future Volume (vph)	0	4	848	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1611	3370	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3370	0	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	2%	2%	7%	7%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1065	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 33.6%			ICU Level of Service A			
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	848	4	0	0
Future Vol, veh/h	0	4	848	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	0	5	1060	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	533	0	0		
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	491	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %	-	-	-	-		
Mov Cap-1 Maneuver	-	491	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	12.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBR	WBLn1		
Capacity (veh/h)	-		-	491		
HCM Lane V/C Ratio	-		-	0.01		
HCM Control Delay (s)	-		-	12.4		
HCM Lane LOS	-		-	B		
HCM 95th %tile Q(veh)	-		-	0		

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Existing PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	40	0	4	0	0	0	0	0	218	4
Future Volume (vph)	0	0	40	0	4	0	0	0	0	0	218	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	4	0	0	0	0	0	241	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	21.7%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↗						↗	
Traffic Vol, veh/h	0	0	40	0	4	0	0	0	0	0	218	4
Future Vol, veh/h	0	0	40	0	4	0	0	0	0	0	218	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	43	0	4	0	0	0	0	0	237	4

Major/Minor	Minor2			Minor1			Major2		
Conflicting Flow All	-	-	239	-	241	-	-	-	0
Stage 1	-	-	-	-	0	-	-	-	-
Stage 2	-	-	-	-	241	-	-	-	-
Critical Hdwy	-	-	6.22	-	6.52	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-	-	-	-
Follow-up Hdwy	-	-	3.318	-	4.018	-	-	-	-
Pot Cap-1 Maneuver	0	0	800	0	660	0	0	-	-
Stage 1	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	706	0	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	800	-	660	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	660	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	706	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	9.8	10.5	0
HCM LOS	A	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	800	660	-	-
HCM Lane V/C Ratio	0.054	0.007	-	-
HCM Control Delay (s)	9.8	10.5	-	-
HCM Lane LOS	A	B	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Existing PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	296	0	0	0	305	0	291	31	0	0	0
Future Volume (vph)	0	296	0	0	0	305	0	291	31	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	322	0	0	0	332	0	350	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 58.8%												
ICU Level of Service B												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	10.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	296	0	0	0	305	0	291	31	0	0	0
Future Vol, veh/h	0	296	0	0	0	305	0	291	31	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	322	0	0	0	332	0	316	34	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	-	350	-	-	-	333	-	0	0	
Stage 1	-	0	-	-	-	-	-	-	-	
Stage 2	-	350	-	-	-	-	-	-	-	
Critical Hdwy	-	6.52	-	-	-	6.22	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	-	4.018	-	-	-	3.318	-	-	-	
Pot Cap-1 Maneuver	0	574	0	0	0	709	0	-	-	
Stage 1	0	-	0	0	0	-	0	-	-	
Stage 2	0	633	0	0	0	-	0	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	-	574	-	-	-	709	-	-	-	
Mov Cap-2 Maneuver	-	574	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	
Stage 2	-	633	-	-	-	-	-	-	-	

Approach	EB	WB	NB
HCM Control Delay, s	19	14.5	0
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	574	709
HCM Lane V/C Ratio	-	-	0.561	0.468
HCM Control Delay (s)	-	-	19	14.5
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	3.4	2.5

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	4	4	254	194	29
Future Volume (vph)	16	4	4	254	194	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1618	0	0	3536	3472	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1618	0	0	3536	3472	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)	2	2	2			2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	286	248	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 20.5%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	4	4	254	194	29
Future Vol, veh/h	16	4	4	254	194	29
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	2	2	2	2
Mvmt Flow	18	4	4	282	216	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	385	128	250	0	-	0
Stage 1	234	-	-	-	-	-
Stage 2	151	-	-	-	-	-
Critical Hdwy	7	7.1	4.14	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.22	-	-	-
Pot Cap-1 Maneuver	570	873	1313	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	565	870	1310	-	-	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.1	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1310	-	608	-	-	
HCM Lane V/C Ratio	0.003	-	0.037	-	-	
HCM Control Delay (s)	7.8	0	11.1	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Traffic Volume (vph)	21	11	4	15	4	4
Future Volume (vph)	21	11	4	15	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1758	0	0	1775	1694	0
Flt Permitted				0.990	0.976	
Satd. Flow (perm)	1758	0	0	1775	1694	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1308	1990	
Travel Time (s)	25.7			35.7	54.3	
Confl. Peds. (#/hr)			1			1
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	3%	3%	6%	6%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	25	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 14.6%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	11	4	15	4	4
Future Vol, veh/h	21	11	4	15	4	4
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	6	6	2	2
Mvmt Flow	28	15	5	20	5	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	44	0	67	38
Stage 1	-	-	-	-	37	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1539	-	938	1034
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	993	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1538	-	934	1032
Mov Cap-2 Maneuver	-	-	-	-	934	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	990	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.5		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	981		-	-	1538	-
HCM Lane V/C Ratio	0.011		-	-	0.004	-
HCM Control Delay (s)	8.7		-	-	7.3	0
HCM Lane LOS	A		-	-	A	A
HCM 95th %tile Q(veh)	0		-	-	0	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	11	4	4	14	4
Future Volume (vph)	4	4	4	4	4	4	4	11	4	4	14	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1750	0	0	1794	0	0	1804	0
Flt Permitted		0.984			0.984			0.990			0.991	
Satd. Flow (perm)	0	1750	0	0	1750	0	0	1794	0	0	1804	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	12	0	0	20	0	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	4	4	4	4	4	4	11	4	4	14	4
Future Vol, veh/h	4	4	4	4	4	4	4	11	4	4	14	4
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	4	4	4	4	12	4	4	15	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	53	51	19	53	51	16	20	0	0	17	0	0
Stage 1	26	26	-	23	23	-	-	-	-	-	-	-
Stage 2	27	25	-	30	28	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	946	840	1059	946	840	1063	1596	-	-	1600	-	-
Stage 1	992	874	-	995	876	-	-	-	-	-	-	-
Stage 2	990	874	-	987	872	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	933	833	1057	933	833	1061	1594	-	-	1598	-	-
Mov Cap-2 Maneuver	933	833	-	933	833	-	-	-	-	-	-	-
Stage 1	988	871	-	991	872	-	-	-	-	-	-	-
Stage 2	977	871	-	974	869	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	8.9	1.5	1.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1594	-	-	932	933	1598	-	-
HCM Lane V/C Ratio	0.003	-	-	0.014	0.014	0.003	-	-
HCM Control Delay (s)	7.3	0	-	8.9	8.9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	6	17	4	4	18	4
Future Volume (vph)	4	4	4	4	4	4	6	17	4	4	18	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1750	0	0	1804	0	0	1807	0
Flt Permitted		0.984			0.984			0.989			0.992	
Satd. Flow (perm)	0	1750	0	0	1750	0	0	1804	0	0	1807	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	15	0	0	32	0	0	31	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕↕↕↕↕↕↕↕↕↕↕↕											
Traffic Vol, veh/h	4	4	4	4	4	4	6	17	4	4	18	4
Future Vol, veh/h	4	4	4	4	4	4	6	17	4	4	18	4
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	5	5	5	5	7	20	5	5	21	5
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	78	74	26	77	74	24	27	0	0	25	0	0
Stage 1	35	35	-	37	37	-	-	-	-	-	-	-
Stage 2	43	39	-	40	37	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	911	816	1050	912	816	1052	1587	-	-	1589	-	-
Stage 1	981	866	-	978	864	-	-	-	-	-	-	-
Stage 2	971	862	-	975	864	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	896	809	1048	898	809	1051	1585	-	-	1589	-	-
Mov Cap-2 Maneuver	896	809	-	898	809	-	-	-	-	-	-	-
Stage 1	976	863	-	974	861	-	-	-	-	-	-	-
Stage 2	956	859	-	961	861	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9			9			1.6			1.1		
HCM LOS	A			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1585	-	-	907	909	1589	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.016	0.016	0.003	-	-				
HCM Control Delay (s)	7.3	0	-	9	9	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

US 1 Multifamily
7: Shopping Center Dwy/N Saylor Street & W Pennsylvania Ave

Existing PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	313	9	4	474	15	8	4	4	8	4	51
Future Volume (vph)	26	313	9	4	474	15	8	4	4	8	4	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1855	0	1770	1853	0	0	1756	0	0	1648	0
Flt Permitted	0.950			0.950				0.974			0.993	
Satd. Flow (perm)	1770	1855	0	1770	1853	0	0	1756	0	0	1648	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Confl. Peds. (#/hr)	3					3				3		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	350	0	4	531	0	0	17	0	0	68	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	37.5%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	313	9	4	474	15	8	4	4	8	4	51
Future Vol, veh/h	26	313	9	4	474	15	8	4	4	8	4	51
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	340	10	4	515	16	9	4	4	9	4	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	534	0	0	350	0	0	965	943	348	942	940	529
Stage 1	-	-	-	-	-	-	401	401	-	534	534	-
Stage 2	-	-	-	-	-	-	564	542	-	408	406	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1034	-	-	1209	-	-	234	263	695	243	264	550
Stage 1	-	-	-	-	-	-	626	601	-	530	524	-
Stage 2	-	-	-	-	-	-	510	520	-	620	598	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1031	-	-	1209	-	-	202	254	693	232	255	547
Mov Cap-2 Maneuver	-	-	-	-	-	-	202	254	-	232	255	-
Stage 1	-	-	-	-	-	-	609	585	-	514	521	-
Stage 2	-	-	-	-	-	-	452	517	-	593	582	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	19.7	14.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	262	1031	-	-	1209	-	-	439
HCM Lane V/C Ratio	0.066	0.027	-	-	0.004	-	-	0.156
HCM Control Delay (s)	19.7	8.6	-	-	8	-	-	14.7
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.5

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Existing PM
09/16/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	1309	4	0	0
Future Volume (vph)	0	4	1309	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1611	3468	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3468	0	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1493	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 46.3%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	1309	4	0	0
Future Vol, veh/h	0	4	1309	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	0	5	1488	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	747	0	0		
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	355	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %	-	-	-	-		
Mov Cap-1 Maneuver	-	355	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	15.3		0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBR	WBLn1		
Capacity (veh/h)	-		-	355		
HCM Lane V/C Ratio	-		-	0.013		
HCM Control Delay (s)	-		-	15.3		
HCM Lane LOS	-		-	C		
HCM 95th %tile Q(veh)	-		-	0		

Appendix E:
Synchro Output:
Background (2031)

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Background AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	35	0	4	0	0	0	0	0	317	4
Future Volume (vph)	0	0	35	0	4	0	0	0	0	0	317	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)			2									1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	42	0	5	0	0	0	0	0	387	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 26.9%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↗						↗	
Traffic Vol, veh/h	0	0	35	0	4	0	0	0	0	0	317	4
Future Vol, veh/h	0	0	35	0	4	0	0	0	0	0	317	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	42	0	5	0	0	0	0	0	382	5

Major/Minor	Minor2			Minor1			Major2		
Conflicting Flow All	-	-	385	-	387	-	-	-	0
Stage 1	-	-	-	-	0	-	-	-	-
Stage 2	-	-	-	-	387	-	-	-	-
Critical Hdwy	-	-	6.27	-	6.52	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-	-	-	-
Follow-up Hdwy	-	-	3.363	-	4.018	-	-	-	-
Pot Cap-1 Maneuver	0	0	652	0	547	0	0	-	-
Stage 1	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	610	0	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	652	-	547	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	547	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	610	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	10.9	11.6	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	652	547	-	-
HCM Lane V/C Ratio	0.065	0.009	-	-
HCM Control Delay (s)	10.9	11.6	-	-
HCM Lane LOS	B	B	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Background AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	350	0	0	0	386	0	267	30	0	0	0
Future Volume (vph)	0	350	0	0	0	386	0	267	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	422	0	0	0	465	0	358	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 65.5%	ICU Level of Service C											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	16.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↗		↖				
Traffic Vol, veh/h	0	350	0	0	0	386	0	267	30	0	0	0
Future Vol, veh/h	0	350	0	0	0	386	0	267	30	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	422	0	0	0	465	0	322	36	0	0	0
Major/Minor	Minor2		Minor1			Major1						
Conflicting Flow All	-	358	-	-	-	340	-	0	0			
Stage 1	-	0	-	-	-	-	-	-	-			
Stage 2	-	358	-	-	-	-	-	-	-			
Critical Hdwy	-	6.52	-	-	-	6.22	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	-	4.018	-	-	-	3.318	-	-	-			
Pot Cap-1 Maneuver	0	568	0	0	0	702	0	-	-			
Stage 1	0	-	0	0	0	-	0	-	-			
Stage 2	0	628	0	0	0	-	0	-	-			
Platoon blocked, %									-	-		
Mov Cap-1 Maneuver	-	568	-	-	-	702	-	-	-			
Mov Cap-2 Maneuver	-	568	-	-	-	-	-	-	-			
Stage 1	-	-	-	-	-	-	-	-	-			
Stage 2	-	628	-	-	-	-	-	-	-			
Approach	EB		WB			NB						
HCM Control Delay, s	27.4		19.6			0						
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBT		NBR	EBLn1	WBLn1							
Capacity (veh/h)	-		-	568	702							
HCM Lane V/C Ratio	-		-	0.742	0.662							
HCM Control Delay (s)	-		-	27.4	19.6							
HCM Lane LOS	-		-	D	C							
HCM 95th %tile Q(veh)	-		-	6.4	5							

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	4	4	236	290	26
Future Volume (vph)	22	4	4	236	290	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1620	0	0	3468	3497	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1620	0	0	3468	3497	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	10%	10%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	276	363	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.7%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	4	4	236	290	26
Future Vol, veh/h	22	4	4	236	290	26
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	10	4	4	2	2
Mvmt Flow	25	5	5	271	333	30
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	495	184	364	0	-	0
Stage 1	349	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	7	7.1	4.18	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.24	-	-	-
Pot Cap-1 Maneuver	484	802	1177	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	481	800	1176	-	-	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.5	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1176	-	512	-	-	
HCM Lane V/C Ratio	0.004	-	0.058	-	-	
HCM Control Delay (s)	8.1	0	12.5	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	21	10	4	14	10	5
Future Volume (vph)	21	10	4	14	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1636	0	0	1844	1524	0
Flt Permitted				0.990	0.969	
Satd. Flow (perm)	1636	0	0	1844	1524	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1175	1990	
Travel Time (s)	25.7			32.0	54.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	2%	2%	15%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	0	20	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 14.2%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↱	
Traffic Vol, veh/h	21	10	4	14	10	5
Future Vol, veh/h	21	10	4	14	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	11	11	2	2	15	15
Mvmt Flow	23	11	4	16	11	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	34	0	53	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.55	6.35
Critical Hdwy Stg 1	-	-	-	-	5.55	-
Critical Hdwy Stg 2	-	-	-	-	5.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.435
Pot Cap-1 Maneuver	-	-	1578	-	924	1010
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1578	-	921	1010
Mov Cap-2 Maneuver	-	-	-	-	921	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	963	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.6		8.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	949	-	-	1578	-	
HCM Lane V/C Ratio	0.018	-	-	0.003	-	
HCM Control Delay (s)	8.9	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	12	4	4	22	4
Future Volume (vph)	4	4	4	4	4	4	4	12	4	4	22	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1666	0	0	1768	0
Flt Permitted		0.984			0.984			0.990			0.994	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1666	0	0	1768	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	10%	10%	10%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	15	0	0	26	0	0	39	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 13.3%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	4	4	4	4	4	4	12	4	4	22	4
Future Vol, veh/h	4	4	4	4	4	4	4	12	4	4	22	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	50	50	50	10	10	10	5	5	5
Mvmt Flow	5	5	5	5	5	5	5	16	5	5	29	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	76	73	32	76	73	19	34	0	0	21	0	0
Stage 1	42	42	-	29	29	-	-	-	-	-	-	-
Stage 2	34	31	-	47	44	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.2	-	-	4.15	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.29	-	-	2.245	-	-
Pot Cap-1 Maneuver	914	817	1042	809	734	936	1527	-	-	1575	-	-
Stage 1	972	860	-	878	785	-	-	-	-	-	-	-
Stage 2	982	869	-	858	772	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	899	812	1042	797	730	936	1527	-	-	1575	-	-
Mov Cap-2 Maneuver	899	812	-	797	730	-	-	-	-	-	-	-
Stage 1	969	857	-	875	783	-	-	-	-	-	-	-
Stage 2	967	866	-	846	770	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	9.5	1.5	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1527	-	-	908	812	1575	-	-
HCM Lane V/C Ratio	0.003	-	-	0.018	0.02	0.003	-	-
HCM Control Delay (s)	7.4	0	-	9	9.5	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	14	4	4	28	4
Future Volume (vph)	4	4	4	4	4	4	4	14	4	4	28	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1734	0	0	1791	0
Flt Permitted		0.984			0.984			0.991			0.995	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1734	0	0	1791	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)				1		1			1	1		
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	6%	6%	6%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	18	0	0	34	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	14	4	4	28	4
Future Vol, veh/h	4	4	4	4	4	4	4	14	4	4	28	4
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	50	50	50	6	6	6	4	4	4
Mvmt Flow	6	6	6	6	6	6	6	22	6	6	43	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	102	99	47	103	99	27	49	0	0	29	0	0
Stage 1	58	58	-	38	38	-	-	-	-	-	-	-
Stage 2	44	41	-	65	61	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	879	791	1022	775	709	926	1533	-	-	1571	-	-
Stage 1	954	847	-	868	777	-	-	-	-	-	-	-
Stage 2	970	861	-	838	759	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	861	784	1021	760	703	924	1533	-	-	1570	-	-
Mov Cap-2 Maneuver	861	784	-	760	703	-	-	-	-	-	-	-
Stage 1	950	844	-	864	773	-	-	-	-	-	-	-
Stage 2	951	857	-	823	756	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.2		9.7			1.3			0.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1533	-	-	878	785	1570	-	-				
HCM Lane V/C Ratio	0.004	-	-	0.021	0.024	0.004	-	-				
HCM Control Delay (s)	7.4	0	-	9.2	9.7	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.1	0.1	0	-	-				

US 1 Multifamily
7: Shopping Center Dwy/N Saylor Street & W Pennsylvania Ave

Background AM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	472	10	4	330	5	9	4	4	4	4	30
Future Volume (vph)	44	472	10	4	330	5	9	4	4	4	4	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1857	0	1770	1859	0	0	1758	0	0	1651	0
Flt Permitted	0.950			0.950				0.973			0.995	
Satd. Flow (perm)	1770	1857	0	1770	1859	0	0	1758	0	0	1651	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	530	0	4	368	0	0	18	0	0	41	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 42.1%

ICU Level of Service A

Analysis Period (min) 15

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	472	10	4	330	5	9	4	4	4	4	30
Future Vol, veh/h	44	472	10	4	330	5	9	4	4	4	4	30
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	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	519	11	4	363	5	10	4	4	4	4	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	368	0	0	530	0	0	1013	997	525	999	1000	366
Stage 1	-	-	-	-	-	-	621	621	-	374	374	-
Stage 2	-	-	-	-	-	-	392	376	-	625	626	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1191	-	-	1037	-	-	217	244	552	222	243	679
Stage 1	-	-	-	-	-	-	475	479	-	647	618	-
Stage 2	-	-	-	-	-	-	633	616	-	473	477	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1191	-	-	1037	-	-	197	233	552	210	232	679
Mov Cap-2 Maneuver	-	-	-	-	-	-	197	233	-	210	232	-
Stage 1	-	-	-	-	-	-	456	460	-	621	616	-
Stage 2	-	-	-	-	-	-	596	614	-	446	458	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	21	13.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	243	1191	-	-	1037	-	-	472
HCM Lane V/C Ratio	0.077	0.041	-	-	0.004	-	-	0.088
HCM Control Delay (s)	21	8.2	-	-	8.5	-	-	13.4
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.3

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	984	4	0	0
Future Volume (vph)	0	4	984	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1611	3370	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3370	0	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	2%	2%	7%	7%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1235	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 37.3%	ICU Level of Service A					
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	984	4	0	0
Future Vol, veh/h	0	4	984	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	0	5	1230	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	618	0	0		
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	432	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %	-	-	-	-		
Mov Cap-1 Maneuver	-	432	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	13.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBR	WBLn1		
Capacity (veh/h)	-		-	432		
HCM Lane V/C Ratio	-		-	0.012		
HCM Control Delay (s)	-		-	13.4		
HCM Lane LOS	-		-	B		
HCM 95th %tile Q(veh)	-		-	0		

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Background PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	46	0	4	0	0	0	0	0	253	4
Future Volume (vph)	0	0	46	0	4	0	0	0	0	0	253	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	50	0	4	0	0	0	0	0	279	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.6%						ICU Level of Service A					
Analysis Period (min)	15											

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↗						↗	
Traffic Vol, veh/h	0	0	46	0	4	0	0	0	0	0	253	4
Future Vol, veh/h	0	0	46	0	4	0	0	0	0	0	253	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	50	0	4	0	0	0	0	0	275	4

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	-	277	-	279	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	279	-
Critical Hdwy	-	-	6.22	-	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	3.318	-	4.018	-
Pot Cap-1 Maneuver	0	0	762	0	629	0
Stage 1	0	0	-	0	-	0
Stage 2	0	0	-	0	680	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	762	-	629	-
Mov Cap-2 Maneuver	-	-	-	-	629	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	680	-

Approach	EB	WB	SB
HCM Control Delay, s	10.1	10.8	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	762	629	-	-
HCM Lane V/C Ratio	0.066	0.007	-	-
HCM Control Delay (s)	10.1	10.8	-	-
HCM Lane LOS	B	B	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Background PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	344	0	0	0	354	0	338	36	0	0	0
Future Volume (vph)	0	344	0	0	0	354	0	338	36	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	374	0	0	0	385	0	406	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 67.3%				ICU Level of Service C								
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	14.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	344	0	0	0	354	0	338	36	0	0	0
Future Vol, veh/h	0	344	0	0	0	354	0	338	36	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	374	0	0	0	385	0	367	39	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	-	406	-	-	-	387	-	0	0	
Stage 1	-	0	-	-	-	-	-	-	-	
Stage 2	-	406	-	-	-	-	-	-	-	
Critical Hdwy	-	6.52	-	-	-	6.22	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	-	4.018	-	-	-	3.318	-	-	-	
Pot Cap-1 Maneuver	0	534	0	0	0	661	0	-	-	
Stage 1	0	-	0	0	0	-	0	-	-	
Stage 2	0	598	0	0	0	-	0	-	-	
Platoon blocked, %	-	-	-	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	534	-	-	-	661	-	-	-	
Mov Cap-2 Maneuver	-	534	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	
Stage 2	-	598	-	-	-	-	-	-	-	

Approach	EB	WB	NB
HCM Control Delay, s	26	17.8	0
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	534	661
HCM Lane V/C Ratio	-	-	0.7	0.582
HCM Control Delay (s)	-	-	26	17.8
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q(veh)	-	-	5.5	3.8

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	19	4	4	295	225	34
Future Volume (vph)	19	4	4	295	225	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1622	0	0	3536	3468	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1622	0	0	3536	3468	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)	2	2	2			2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	332	288	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 21.6%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	4	4	295	225	34
Future Vol, veh/h	19	4	4	295	225	34
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	2	2	2	2
Mvmt Flow	21	4	4	328	250	38

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	445	148	290	0	-	0
Stage 1	271	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	7	7.1	4.14	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.22	-	-	-
Pot Cap-1 Maneuver	522	847	1269	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	518	844	1267	-	-	-
Mov Cap-2 Maneuver	518	-	-	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	813	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1267	-	555	-	-
HCM Lane V/C Ratio	0.004	-	0.046	-	-
HCM Control Delay (s)	7.9	0	11.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	24	13	4	17	4	4
Future Volume (vph)	24	13	4	17	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1754	0	0	1776	1694	0
Flt Permitted				0.991	0.976	
Satd. Flow (perm)	1754	0	0	1776	1694	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1295	1990	
Travel Time (s)	25.7			35.3	54.3	
Confl. Peds. (#/hr)			1			1
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	3%	3%	6%	6%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	0	0	28	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 14.7%	ICU Level of Service A					
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	13	4	17	4	4
Future Vol, veh/h	24	13	4	17	4	4
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	6	6	2	2
Mvmt Flow	32	18	5	23	5	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	51	0	75	43
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1530	-	928	1027
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	989	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	924	1025
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	986	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.4		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	972		-	-	1529	-
HCM Lane V/C Ratio	0.011		-	-	0.004	-
HCM Control Delay (s)	8.7		-	-	7.4	0
HCM Lane LOS	A		-	-	A	A
HCM 95th %tile Q(veh)	0		-	-	0	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	13	4	4	16	4
Future Volume (vph)	4	4	4	4	4	4	4	13	4	4	16	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1750	0	0	1800	0	0	1807	0
Flt Permitted		0.984			0.984			0.991			0.992	
Satd. Flow (perm)	0	1750	0	0	1750	0	0	1800	0	0	1807	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	12	0	0	22	0	0	25	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	4	4	4	4	4	4	13	4	4	16	4
Future Vol, veh/h	4	4	4	4	4	4	4	13	4	4	16	4
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	4	4	4	4	14	4	4	17	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	57	55	21	57	55	18	22	0	0	19	0	0
Stage 1	28	28	-	25	25	-	-	-	-	-	-	-
Stage 2	29	27	-	32	30	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	940	836	1056	940	836	1061	1593	-	-	1597	-	-
Stage 1	989	872	-	993	874	-	-	-	-	-	-	-
Stage 2	988	873	-	984	870	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	829	1054	926	829	1059	1591	-	-	1595	-	-
Mov Cap-2 Maneuver	927	829	-	926	829	-	-	-	-	-	-	-
Stage 1	985	869	-	989	871	-	-	-	-	-	-	-
Stage 2	975	870	-	971	867	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	8.9	1.4	1.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	928	929	1595	-	-
HCM Lane V/C Ratio	0.003	-	-	0.014	0.014	0.003	-	-
HCM Control Delay (s)	7.3	0	-	8.9	8.9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	4	5	4	4	7	20	4	4	21	4
Future Volume (vph)	4	5	4	5	4	4	7	20	4	4	21	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1758	0	0	1752	0	0	1809	0	0	1815	0
Flt Permitted		0.985			0.982			0.989			0.993	
Satd. Flow (perm)	0	1758	0	0	1752	0	0	1809	0	0	1815	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	16	0	0	37	0	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 14.0%				ICU Level of Service A								
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	5	4	5	4	4	7	20	4	4	21	4
Future Vol, veh/h	4	5	4	5	4	4	7	20	4	4	21	4
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	6	5	6	5	5	8	24	5	5	25	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	88	84	30	87	84	28	31	0	0	29	0	0
Stage 1	39	39	-	43	43	-	-	-	-	-	-	-
Stage 2	49	45	-	44	41	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	897	806	1044	899	806	1047	1582	-	-	1584	-	-
Stage 1	976	862	-	971	859	-	-	-	-	-	-	-
Stage 2	964	857	-	970	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	882	799	1042	884	799	1046	1580	-	-	1584	-	-
Mov Cap-2 Maneuver	882	799	-	884	799	-	-	-	-	-	-	-
Stage 1	970	859	-	966	855	-	-	-	-	-	-	-
Stage 2	949	853	-	955	858	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.1		9.1			1.6			1			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1580	-	-	888	897	1584	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.017	0.017	0.003	-	-				
HCM Control Delay (s)	7.3	0	-	9.1	9.1	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

US 1 Multifamily
7: Shopping Center Dwy/N Saylor Street & W Pennsylvania Ave

Background PM
09/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	363	10	4	550	17	9	4	4	9	4	59
Future Volume (vph)	30	363	10	4	550	17	9	4	4	9	4	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1855	0	1770	1855	0	0	1758	0	0	1646	0
Flt Permitted	0.950			0.950				0.973			0.994	
Satd. Flow (perm)	1770	1855	0	1770	1855	0	0	1758	0	0	1646	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Confl. Peds. (#/hr)	3					3				3		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	406	0	4	616	0	0	18	0	0	78	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 42.1%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	363	10	4	550	17	9	4	4	9	4	59
Future Vol, veh/h	30	363	10	4	550	17	9	4	4	9	4	59
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	395	11	4	598	18	10	4	4	10	4	64

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	619	0	0	406	0	0	1119	1094	404	1092	1090	613
Stage 1	-	-	-	-	-	-	467	467	-	618	618	-
Stage 2	-	-	-	-	-	-	652	627	-	474	472	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	961	-	-	1153	-	-	184	214	647	192	215	492
Stage 1	-	-	-	-	-	-	576	562	-	477	481	-
Stage 2	-	-	-	-	-	-	457	476	-	571	559	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	958	-	-	1153	-	-	152	205	645	181	206	489
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	205	-	181	206	-
Stage 1	-	-	-	-	-	-	556	543	-	459	478	-
Stage 2	-	-	-	-	-	-	391	473	-	542	540	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	24.8	17
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	200	958	-	-	1153	-	-	379
HCM Lane V/C Ratio	0.092	0.034	-	-	0.004	-	-	0.206
HCM Control Delay (s)	24.8	8.9	-	-	8.1	-	-	17
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.8

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	1519	4	0	0
Future Volume (vph)	0	4	1519	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1611	3471	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3471	0	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1731	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 52.1%	ICU Level of Service A					
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	1519	4	0	0
Future Vol, veh/h	0	4	1519	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	16979
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	0	5	1726	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	866	0	0		
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	297	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %	-	-	-	-		
Mov Cap-1 Maneuver	-	297	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	17.3		0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBR	WBLn1		
Capacity (veh/h)	-		-	297		
HCM Lane V/C Ratio	-		-	0.015		
HCM Control Delay (s)	-		-	17.3		
HCM Lane LOS	-		-	C		
HCM 95th %tile Q(veh)	-		-	0		

Appendix F:
Synchro Output:
Build-Out (2031)

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Build-out (2031) AM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	35	0	4	0	0	0	0	0	322	4
Future Volume (vph)	0	0	35	0	4	0	0	0	0	0	322	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1536	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)			2									1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	42	0	5	0	0	0	0	0	393	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	
Traffic Vol, veh/h	0	0	35	0	4	0	0	0	0	0	322	4
Future Vol, veh/h	0	0	35	0	4	0	0	0	0	0	322	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	42	0	5	0	0	0	0	0	388	5

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	-	391	-	393	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	393	-
Critical Hdwy	-	-	6.27	-	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	3.363	-	4.018	-
Pot Cap-1 Maneuver	0	0	647	0	543	0
Stage 1	0	0	-	0	-	0
Stage 2	0	0	-	0	606	0
Platoon blocked, %						-
Mov Cap-1 Maneuver	-	-	647	-	543	-
Mov Cap-2 Maneuver	-	-	-	-	543	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	SB
HCM Control Delay, s	11	11.7	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	647 543	-	-
HCM Lane V/C Ratio	0.065 0.009	-	-
HCM Control Delay (s)	11 11.7	-	-
HCM Lane LOS	B B	-	-
HCM 95th %tile Q(veh)	0.2 0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Build-out (2031) AM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	350	0	0	0	405	0	267	30	0	0	0
Future Volume (vph)	0	350	0	0	0	405	0	267	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1837	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	422	0	0	0	488	0	358	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	66.7%											
Analysis Period (min)	15											
ICU Level of Service C												

Intersection												
Int Delay, s/veh	17.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑				↑		↑				
Traffic Vol, veh/h	0	350	0	0	0	405	0	267	30	0	0	0
Future Vol, veh/h	0	350	0	0	0	405	0	267	30	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	422	0	0	0	488	0	322	36	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	-	358	-	-	-	340	-	0	0	
Stage 1	-	0	-	-	-	-	-	-	-	
Stage 2	-	358	-	-	-	-	-	-	-	
Critical Hdwy	-	6.52	-	-	-	6.22	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	-	4.018	-	-	-	3.318	-	-	-	
Pot Cap-1 Maneuver	0	568	0	0	0	702	0	-	-	
Stage 1	0	-	0	0	0	-	0	-	-	
Stage 2	0	628	0	0	0	-	0	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	-	568	-	-	-	702	-	-	-	
Mov Cap-2 Maneuver	-	568	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	
Stage 2	-	628	-	-	-	-	-	-	-	

Approach	EB	WB	NB
HCM Control Delay, s	27.4	21	0
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	-	-	568 702
HCM Lane V/C Ratio	-	-	0.742 0.695
HCM Control Delay (s)	-	-	27.4 21
HCM Lane LOS	-	-	D C
HCM 95th %tile Q(veh)	-	-	6.4 5.6

US 1 Multifamily
3: Midland Road & Crestview Road

Build-out (2031) AM
10/14/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	4	4	236	290	31
Future Volume (vph)	22	4	4	236	290	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1620	0	0	3468	3486	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1620	0	0	3468	3486	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	10%	10%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	276	369	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.7%			ICU Level of Service A		
Analysis Period (min)	15					

US 1 Multifamily
3: Midland Road & Crestview Road

Build-out (2031) AM
10/14/2021

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑↑	↑↑	
Traffic Vol, veh/h	22	4	4	236	290	31
Future Vol, veh/h	22	4	4	236	290	31
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	10	10	4	4	2	2
Mvmt Flow	25	5	5	271	333	36

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	498	187	370	0	-	0
Stage 1	352	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	7	7.1	4.18	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.24	-	-	-
Pot Cap-1 Maneuver	482	799	1171	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	479	797	1170	-	-	-
Mov Cap-2 Maneuver	479	-	-	-	-	-
Stage 1	656	-	-	-	-	-
Stage 2	842	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1170	-	510	-	-
HCM Lane V/C Ratio	0.004	-	0.059	-	-
HCM Control Delay (s)	8.1	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

US 1 Multifamily
4: N Saylor Street & Crestview Road

Build-out (2031) AM
10/14/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	21	15	4	14	10	5
Future Volume (vph)	21	15	4	14	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1614	0	0	1844	1524	0
Flt Permitted				0.990	0.969	
Satd. Flow (perm)	1614	0	0	1844	1524	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1313	1990	
Travel Time (s)	25.7			35.8	54.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	2%	2%	15%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	0	20	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 14.2%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	15	4	14	10	5
Future Vol, veh/h	21	15	4	14	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	11	11	2	2	15	15
Mvmt Flow	23	17	4	16	11	6
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	40	0	56	32
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.55	6.35
Critical Hdwy Stg 1	-	-	-	-	5.55	-
Critical Hdwy Stg 2	-	-	-	-	5.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.435
Pot Cap-1 Maneuver	-	-	1570	-	920	1006
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1570	-	917	1006
Mov Cap-2 Maneuver	-	-	-	-	917	-
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	963	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	1.6		8.9		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	945	-	-	1570	-	
HCM Lane V/C Ratio	0.018	-	-	0.003	-	
HCM Control Delay (s)	8.9	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

US 1 Multifamily
5: N Saylor Street & W. Rhode Island Ave

Build-out (2031) AM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	12	4	4	27	4
Future Volume (vph)	4	4	4	4	4	4	4	12	4	4	27	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1666	0	0	1773	0
Flt Permitted		0.984			0.984			0.990			0.995	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1666	0	0	1773	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	10%	10%	10%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	15	0	0	26	0	0	46	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	12	4	4	27	4
Future Vol, veh/h	4	4	4	4	4	4	4	12	4	4	27	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	50	50	50	10	10	10	5	5	5
Mvmt Flow	5	5	5	5	5	5	5	16	5	5	36	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	83	80	39	83	80	19	41	0	0	21	0	0
Stage 1	49	49	-	29	29	-	-	-	-	-	-	-
Stage 2	34	31	-	54	51	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.2	-	-	4.15	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.29	-	-	2.245	-	-
Pot Cap-1 Maneuver	904	810	1033	800	727	936	1518	-	-	1575	-	-
Stage 1	964	854	-	878	785	-	-	-	-	-	-	-
Stage 2	982	869	-	850	767	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	890	805	1033	788	723	936	1518	-	-	1575	-	-
Mov Cap-2 Maneuver	890	805	-	788	723	-	-	-	-	-	-	-
Stage 1	961	851	-	875	783	-	-	-	-	-	-	-
Stage 2	967	866	-	838	765	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.1		9.6		1.5		0.8	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1518	-	-	900	806	1575	-
HCM Lane V/C Ratio	0.004	-	-	0.018	0.02	0.003	-
HCM Control Delay (s)	7.4	0	-	9.1	9.6	7.3	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

US 1 Multifamily
6: N Saylor Street & Vermont Ave

Build-out (2031) AM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	14	4	4	33	4
Future Volume (vph)	4	4	4	4	4	4	4	14	4	4	33	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1190	0	0	1734	0	0	1794	0
Flt Permitted		0.984			0.984			0.991			0.995	
Satd. Flow (perm)	0	1750	0	0	1190	0	0	1734	0	0	1794	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)				1		1			1	1		
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	6%	6%	6%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	18	0	0	34	0	0	63	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	14	4	4	33	4
Future Vol, veh/h	4	4	4	4	4	4	4	14	4	4	33	4
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	50	50	50	6	6	6	4	4	4
Mvmt Flow	6	6	6	6	6	6	6	22	6	6	51	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	110	107	55	111	107	27	57	0	0	29	0	0
Stage 1	66	66	-	38	38	-	-	-	-	-	-	-
Stage 2	44	41	-	73	69	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.6	7	6.7	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.6	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.95	4.45	3.75	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	868	783	1012	766	701	926	1522	-	-	1571	-	-
Stage 1	945	840	-	868	777	-	-	-	-	-	-	-
Stage 2	970	861	-	830	752	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	851	776	1011	751	695	924	1522	-	-	1570	-	-
Mov Cap-2 Maneuver	851	776	-	751	695	-	-	-	-	-	-	-
Stage 1	941	837	-	864	773	-	-	-	-	-	-	-
Stage 2	951	857	-	815	749	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.2		9.7		1.3		0.7	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1522	-	-	869	779	1570	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.024	0.004	-
HCM Control Delay (s)	7.4	0	-	9.2	9.7	7.3	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

US 1 Multifamily
7: Private Drive/N Saylor Street & W Pennsylvania Ave

Build-out (2031) AM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	472	10	4	330	21	9	4	4	25	4	56
Future Volume (vph)	49	472	10	4	330	21	9	4	4	25	4	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1857	0	1770	1846	0	0	1758	0	0	1671	0
Flt Permitted	0.950			0.950				0.973			0.986	
Satd. Flow (perm)	1770	1857	0	1770	1846	0	0	1758	0	0	1671	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	530	0	4	386	0	0	18	0	0	93	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	44.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	472	10	4	330	21	9	4	4	25	4	56
Future Vol, veh/h	49	472	10	4	330	21	9	4	4	25	4	56
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	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	519	11	4	363	23	10	4	4	27	4	62

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	386	0	0	530	0	0	1049	1027	525	1020	1021	375
Stage 1	-	-	-	-	-	-	633	633	-	383	383	-
Stage 2	-	-	-	-	-	-	416	394	-	637	638	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1172	-	-	1037	-	-	205	234	552	215	236	671
Stage 1	-	-	-	-	-	-	468	473	-	640	612	-
Stage 2	-	-	-	-	-	-	614	605	-	465	471	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1172	-	-	1037	-	-	177	222	552	202	224	671
Mov Cap-2 Maneuver	-	-	-	-	-	-	177	222	-	202	224	-
Stage 1	-	-	-	-	-	-	446	451	-	611	610	-
Stage 2	-	-	-	-	-	-	552	603	-	436	449	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.1			22.6			17.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	223	1172	-	-	1037	-	-	378
HCM Lane V/C Ratio	0.084	0.046	-	-	0.004	-	-	0.247
HCM Control Delay (s)	22.6	8.2	-	-	8.5	-	-	17.6
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Build-out (2031) AM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			
Traffic Volume (vph)	0	26	984	27	0	0
Future Volume (vph)	0	26	984	27	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	0	1		1	0	
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	1611	3374	1509	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3374	1509	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	2%	2%	7%	7%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	33	1230	34	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.2%		ICU Level of Service A			
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	26	984	27	0	0
Future Vol, veh/h	0	26	984	27	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	50	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	0	33	1230	34	0	0
Major/Minor	Minor1	Major1				
Conflicting Flow All	-	615	0	0		
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	434	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	434	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB	NB				
HCM Control Delay, s	14	0				
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1				
Capacity (veh/h)	-	-	434			
HCM Lane V/C Ratio	-	-	0.075			
HCM Control Delay (s)	-	-	14			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.2			

US 1 Multifamily
9: US 1 NB Service Road & Site Driveway #1

Build-out (2031) AM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	4	16	10	4	33
Future Volume (vph)	15	4	16	10	4	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1744	0	1768	0	0	1853
Flt Permitted	0.961					0.995
Satd. Flow (perm)	1744	0	1768	0	0	1853
Link Speed (mph)	25		30			30
Link Distance (ft)	290		288			821
Travel Time (s)	7.9		6.5			18.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	0	29	0	0	41
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 15.1% ICU Level of Service A						
Analysis Period (min) 15						

US 1 Multifamily
9: US 1 NB Service Road & Site Driveway #1

Build-out (2031) AM
10/14/2021

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	15	4	16	10	4	33
Future Vol, veh/h	15	4	16	10	4	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	4	18	11	4	37
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	69	24	0	0	29	0
Stage 1	24	-	-	-	-	-
Stage 2	45	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	936	1052	-	-	1584	-
Stage 1	999	-	-	-	-	-
Stage 2	977	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	933	1052	-	-	1584	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	8.9	0		0.8		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	956	1584	-	
HCM Lane V/C Ratio	-	-	0.022	0.003	-	
HCM Control Delay (s)	-	-	8.9	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

US 1 Multifamily
10: US 1 NB Service Road & Site Driveway #2

Build-out (2031) AM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	15	9	11	19	10
Future Volume (vph)	26	15	9	11	19	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1715	0	1725	0	0	1803
Flt Permitted	0.969					0.968
Satd. Flow (perm)	1715	0	1725	0	0	1803
Link Speed (mph)	25		30			30
Link Distance (ft)	398		821			192
Travel Time (s)	10.9		18.7			4.4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	46	0	22	0	0	32
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.2%			ICU Level of Service A			
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	5.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	15	9	11	19	10
Future Vol, veh/h	26	15	9	11	19	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	17	10	12	21	11

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	69	16	0
Stage 1	16	-	-
Stage 2	53	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	936	1063	-
Stage 1	1007	-	-
Stage 2	970	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	924	1063	-
Mov Cap-2 Maneuver	924	-	-
Stage 1	1007	-	-
Stage 2	957	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	4.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	970	1593
HCM Lane V/C Ratio	-	-	0.047	0.013
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	21	19	5	7	7
Future Volume (vph)	5	21	19	5	7	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1647	0	0	1794	1736	0
Flt Permitted	0.990			0.963		
Satd. Flow (perm)	1647	0	0	1794	1736	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	194			192	513	
Travel Time (s)	5.3			4.4	11.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	0	27	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Free			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.0% ICU Level of Service A

Analysis Period (min) 15

11: US 1 NB Service Road & US 1 NB Service Road Access Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	4.0	3.8	2.4

US 1 Multifamily
12: US 1 NB Service Road & Site Driveway #3

Build-out (2031) AM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	4	4	10	4	4
Future Volume (vph)	14	4	4	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1744	0	1678	0	0	1818
Flt Permitted	0.962					0.976
Satd. Flow (perm)	1744	0	1678	0	0	1818
Link Speed (mph)	25		30			30
Link Distance (ft)	285		513			402
Travel Time (s)	7.8		11.7			9.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	20	0	15	0	0	8
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 13.8%			ICU Level of Service A			
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	4.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	4	4	10	4	4
Future Vol, veh/h	14	4	4	10	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	4	4	11	4	4

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	22	10	0
Stage 1	10	-	-
Stage 2	12	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	995	1071	-
Stage 1	1013	-	-
Stage 2	1011	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	992	1071	-
Mov Cap-2 Maneuver	992	-	-
Stage 1	1013	-	-
Stage 2	1008	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1009	1603
HCM Lane V/C Ratio	-	-	0.02	0.003
HCM Control Delay (s)	-	-	8.6	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

US 1 Multifamily
1: US 1 NB Ramp & Midland Road

Build-out (2031) PM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	46	0	4	0	0	0	0	0	260	4
Future Volume (vph)	0	0	46	0	4	0	0	0	0	0	260	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	1863	0	0	0	0	0	1859	0
Link Speed (mph)		35			45			30			45	
Link Distance (ft)		218			151			306			106	
Travel Time (s)		4.2			2.3			7.0			1.6	
Confl. Bikes (#/hr)			2									1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	50	0	4	0	0	0	0	0	287	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 23.9%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↑						↘	
Traffic Vol, veh/h	0	0	46	0	4	0	0	0	0	0	260	4
Future Vol, veh/h	0	0	46	0	4	0	0	0	0	0	260	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	50	0	4	0	0	0	0	0	283	4

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	-	285	-	287	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	287	-
Critical Hdwy	-	-	6.22	-	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	3.318	-	4.018	-
Pot Cap-1 Maneuver	0	0	754	0	623	0
Stage 1	0	0	-	0	-	0
Stage 2	0	0	-	0	674	0
Platoon blocked, %						-
Mov Cap-1 Maneuver	-	-	754	-	623	-
Mov Cap-2 Maneuver	-	-	-	-	623	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	674	-

Approach	EB	WB	SB
HCM Control Delay, s	10.1	10.8	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	754 623	-	-
HCM Lane V/C Ratio	0.066 0.007	-	-
HCM Control Delay (s)	10.1 10.8	-	-
HCM Lane LOS	B B	-	-
HCM 95th %tile Q(veh)	0.2 0	-	-

US 1 Multifamily
2: Midland Road & US 1 NB Ramp

Build-out (2031) PM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	344	0	0	0	368	0	338	36	0	0	0
Future Volume (vph)	0	344	0	0	0	368	0	338	36	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	0	1611	0	1839	0	0	0	0
Link Speed (mph)		45			35			45			30	
Link Distance (ft)		146			356			115			439	
Travel Time (s)		2.2			6.9			1.7			10.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	374	0	0	0	400	0	406	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 68.2%												
ICU Level of Service C												
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	0	344	0	0	0	368	0	338	36	0	0	0
Future Vol, veh/h	0	344	0	0	0	368	0	338	36	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	374	0	0	0	400	0	367	39	0	0	0

Major/Minor	Minor2	Minor1	Major1
Conflicting Flow All	- 406	- - -	387 - 0 0
Stage 1	- 0	- - -	- - -
Stage 2	- 406	- - -	- - -
Critical Hdwy	- 6.52	- - -	6.22 - - -
Critical Hdwy Stg 1	- -	- - -	- - -
Critical Hdwy Stg 2	- 5.52	- - -	- - -
Follow-up Hdwy	- 4.018	- - -	3.318 - - -
Pot Cap-1 Maneuver	0 534	0 0 0	661 0 - -
Stage 1	0 -	0 0 0	- 0 - -
Stage 2	0 598	0 0 0	- 0 - -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	- 534	- - -	661 - - -
Mov Cap-2 Maneuver	- 534	- - -	- - -
Stage 1	- -	- - -	- - -
Stage 2	- 598	- - -	- - -

Approach	EB	WB	NB
HCM Control Delay, s	26	18.4	0
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	-	-	534 661
HCM Lane V/C Ratio	-	-	0.7 0.605
HCM Control Delay (s)	-	-	26 18.4
HCM Lane LOS	-	-	D C
HCM 95th %tile Q(veh)	-	-	5.5 4.1

US 1 Multifamily
3: Midland Road & Crestview Road

Build-out (2031) PM
10/14/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	19	4	4	295	225	41
Future Volume (vph)	19	4	4	295	225	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1622	0	0	3536	3458	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1622	0	0	3536	3458	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	403			386	146	
Travel Time (s)	11.0			7.5	2.8	
Confl. Peds. (#/hr)	2	2	2			2
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	332	296	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.6%			ICU Level of Service A		
Analysis Period (min)	15					

US 1 Multifamily
3: Midland Road & Crestview Road

Build-out (2031) PM
10/14/2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	19	4	4	295	225	41
Future Vol, veh/h	19	4	4	295	225	41
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	2	2	2	2
Mvmt Flow	21	4	4	328	250	46

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	449	152	298	0	-	0
Stage 1	275	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	7	7.1	4.14	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.22	-	-	-
Pot Cap-1 Maneuver	518	842	1260	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	514	839	1258	-	-	-
Mov Cap-2 Maneuver	514	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	813	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1258	-	551	-	-
HCM Lane V/C Ratio	0.004	-	0.046	-	-
HCM Control Delay (s)	7.9	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

US 1 Multifamily
4: N Saylor Street & Crestview Road

Build-out (2031) PM
10/14/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	24	20	4	17	4	4
Future Volume (vph)	24	20	4	17	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1730	0	0	1776	1694	0
Flt Permitted				0.991	0.976	
Satd. Flow (perm)	1730	0	0	1776	1694	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	944			1313	1990	
Travel Time (s)	25.7			35.8	54.3	
Confl. Peds. (#/hr)			1			1
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	3%	3%	6%	6%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	59	0	0	28	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	14.7%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	20	4	17	4	4
Future Vol, veh/h	24	20	4	17	4	4
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	6	6	2	2
Mvmt Flow	32	27	5	23	5	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	60	0	80	48
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1518	-	922	1021
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	989	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1517	-	918	1019
Mov Cap-2 Maneuver	-	-	-	-	918	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	986	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.4		8.8	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	966	-	-	1517	-	
HCM Lane V/C Ratio	0.011	-	-	0.004	-	
HCM Control Delay (s)	8.8	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

US 1 Multifamily
5: N Saylor Street & W. Rhode Island Ave

Build-out (2031) PM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	4	4	4	4	13	4	4	23	4
Future Volume (vph)	4	4	4	4	4	4	4	13	4	4	23	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1750	0	0	1750	0	0	1800	0	0	1822	0
Flt Permitted		0.984			0.984			0.991			0.994	
Satd. Flow (perm)	0	1750	0	0	1750	0	0	1800	0	0	1822	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		437			1927			950			1990	
Travel Time (s)		11.9			52.6			25.9			54.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	12	0	0	22	0	0	33	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	4	4	4	4	4	13	4	4	23	4
Future Vol, veh/h	4	4	4	4	4	4	4	13	4	4	23	4
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	4	4	4	4	14	4	4	25	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	65	63	29	65	63	18	30	0	0	19	0	0
Stage 1	36	36	-	25	25	-	-	-	-	-	-	-
Stage 2	29	27	-	40	38	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	929	828	1046	929	828	1061	1583	-	-	1597	-	-
Stage 1	980	865	-	993	874	-	-	-	-	-	-	-
Stage 2	988	873	-	975	863	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	915	821	1044	915	821	1059	1581	-	-	1595	-	-
Mov Cap-2 Maneuver	915	821	-	915	821	-	-	-	-	-	-	-
Stage 1	976	862	-	989	871	-	-	-	-	-	-	-
Stage 2	975	870	-	962	860	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9		9		1.4		0.9	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1581	-	-	918	922	1595	-	-
HCM Lane V/C Ratio	0.003	-	-	0.014	0.014	0.003	-	-
HCM Control Delay (s)	7.3	0	-	9	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

US 1 Multifamily
6: N Saylor Street & Vermont Ave

Build-out (2031) PM

10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	4	5	4	4	7	20	4	4	28	4
Future Volume (vph)	4	5	4	5	4	4	7	20	4	4	28	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1758	0	0	1752	0	0	1809	0	0	1822	0
Flt Permitted		0.985			0.982			0.989			0.994	
Satd. Flow (perm)	0	1758	0	0	1752	0	0	1809	0	0	1822	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		367			1102			1438			950	
Travel Time (s)		10.0			30.1			39.2			25.9	
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	16	0	0	37	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 14.0%												
ICU Level of Service A												
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	5	4	5	4	4	7	20	4	4	28	4
Future Vol, veh/h	4	5	4	5	4	4	7	20	4	4	28	4
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	6	5	6	5	5	8	24	5	5	33	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	96	92	38	95	92	28	39	0	0	29	0	0
Stage 1	47	47	-	43	43	-	-	-	-	-	-	-
Stage 2	49	45	-	52	49	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	887	798	1034	888	798	1047	1571	-	-	1584	-	-
Stage 1	967	856	-	971	859	-	-	-	-	-	-	-
Stage 2	964	857	-	961	854	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	872	791	1032	873	791	1046	1570	-	-	1584	-	-
Mov Cap-2 Maneuver	872	791	-	873	791	-	-	-	-	-	-	-
Stage 1	961	853	-	966	855	-	-	-	-	-	-	-
Stage 2	949	853	-	946	851	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.2		9.1			1.6			0.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1570	-	-	879	890	1584	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.018	0.017	0.003	-	-				
HCM Control Delay (s)	7.3	0	-	9.2	9.1	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

US 1 Multifamily
7: Private Drive/N Saylor Street & W Pennsylvania Ave

Build-out (2031) PM
10/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	363	10	4	550	39	9	4	4	25	4	78
Future Volume (vph)	37	363	10	4	550	39	9	4	4	25	4	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			50			25			25		
Satd. Flow (prot)	1770	1855	0	1770	1844	0	0	1758	0	0	1658	0
Flt Permitted	0.950			0.950				0.973			0.988	
Satd. Flow (perm)	1770	1855	0	1770	1844	0	0	1758	0	0	1658	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		453			554			258			1438	
Travel Time (s)		8.8			10.8			7.0			39.2	
Confl. Peds. (#/hr)	3					3				3		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	406	0	4	640	0	0	18	0	0	116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	45.5%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	363	10	4	550	39	9	4	4	25	4	78
Future Vol, veh/h	37	363	10	4	550	39	9	4	4	25	4	78
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	395	11	4	598	42	10	4	4	27	4	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	643	0	0	406	0	0	1156	1132	404	1118	1116	625
Stage 1	-	-	-	-	-	-	481	481	-	630	630	-
Stage 2	-	-	-	-	-	-	675	651	-	488	486	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	942	-	-	1153	-	-	174	203	647	184	208	485
Stage 1	-	-	-	-	-	-	566	554	-	470	475	-
Stage 2	-	-	-	-	-	-	444	465	-	561	551	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	939	-	-	1153	-	-	136	193	645	172	198	482
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	193	-	172	198	-
Stage 1	-	-	-	-	-	-	542	530	-	449	472	-
Stage 2	-	-	-	-	-	-	360	462	-	528	527	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.1	26.9	22
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	183	939	-	-	1153	-	-	327
HCM Lane V/C Ratio	0.101	0.043	-	-	0.004	-	-	0.356
HCM Control Delay (s)	26.9	9	-	-	8.1	-	-	22
HCM Lane LOS	D	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.6

US 1 Multifamily
8: US 1 NB & US 1 NB Service Road Access

Build-out (2031) PM
10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	20	1519	38	0	0
Future Volume (vph)	0	20	1519	38	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	0	1		1	0	
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	1611	3471	1553	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	3471	1553	0	0
Link Speed (mph)	25		55			55
Link Distance (ft)	194		1682			659
Travel Time (s)	5.3		20.9			8.2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	1726	43	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	52.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1519	38	0	0
Future Vol, veh/h	0	20	1519	38	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	50	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	0	23	1726	43	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	863	0	0		
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	298	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	298	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	18.1		0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		298			
HCM Lane V/C Ratio	-		0.076			
HCM Control Delay (s)	-		18.1			
HCM Lane LOS	-		C			
HCM 95th %tile Q(veh)	-		0.2			

US 1 Multifamily
9: US 1 NB Service Road & Site Driveway #1

Build-out (2031) PM

10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	4	22	14	4	24
Future Volume (vph)	10	4	22	14	4	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1733	0	1762	0	0	1852
Flt Permitted	0.965					0.994
Satd. Flow (perm)	1733	0	1762	0	0	1852
Link Speed (mph)	25		30			30
Link Distance (ft)	290		288			812
Travel Time (s)	7.9		6.5			18.5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	40	0	0	31
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 14.7%			ICU Level of Service A			
Analysis Period (min) 15						

US 1 Multifamily
9: US 1 NB Service Road & Site Driveway #1

Build-out (2031) PM
10/14/2021

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	10	4	22	14	4	24
Future Vol, veh/h	10	4	22	14	4	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	11	4	24	16	4	27

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	67	32	0
Stage 1	32	-	-
Stage 2	35	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	938	1042	1570
Stage 1	991	-	-
Stage 2	987	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	935	1042	1570
Mov Cap-2 Maneuver	935	-	-
Stage 1	991	-	-
Stage 2	984	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	963	1570
HCM Lane V/C Ratio	-	-	0.016	0.003
HCM Control Delay (s)	-	-	8.8	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

US 1 Multifamily
10: US 1 NB Service Road & Site Driveway #2

Build-out (2031) PM

10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	19	11	10	15	26	9
Future Volume (vph)	19	11	10	15	26	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1717	0	1710	0	0	1796
Flt Permitted	0.969					0.964
Satd. Flow (perm)	1717	0	1710	0	0	1796
Link Speed (mph)	25		30			30
Link Distance (ft)	349		812			202
Travel Time (s)	9.5		18.5			4.6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	28	0	0	39
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.6%			ICU Level of Service A			
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	11	10	15	26	9
Future Vol, veh/h	19	11	10	15	26	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	21	12	11	17	29	10

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	88	20	0
Stage 1	20	-	-
Stage 2	68	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	913	1058	-
Stage 1	1003	-	-
Stage 2	955	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	897	1058	-
Mov Cap-2 Maneuver	897	-	-
Stage 1	1003	-	-
Stage 2	938	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	5.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	950	1585
HCM Lane V/C Ratio	-	-	0.035	0.018
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	7	29	14	7	5	5
Future Volume (vph)	7	29	14	7	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1645	0	0	1803	1736	0
Flt Permitted	0.990			0.968		
Satd. Flow (perm)	1645	0	0	1803	1736	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	194			202	513	
Travel Time (s)	5.3			4.6	11.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	0	24	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Free			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.8% ICU Level of Service A

Analysis Period (min) 15

11: US 1 NB Service Road & US 1 NB Service Road Access Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	4.0	2.9	1.7

US 1 Multifamily
12: US 1 NB Service Road & Site Driveway #3

Build-out (2031) PM

10/14/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	11	4	4	14	4	4
Future Volume (vph)	11	4	4	14	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1735	0	1662	0	0	1818
Flt Permitted	0.964					0.976
Satd. Flow (perm)	1735	0	1662	0	0	1818
Link Speed (mph)	25		30			30
Link Distance (ft)	285		513			402
Travel Time (s)	7.8		11.7			9.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	20	0	0	8
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 13.8%			ICU Level of Service A			
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	3.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	4	4	14	4	4
Future Vol, veh/h	11	4	4	14	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	4	4	16	4	4

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	24	12	0
Stage 1	12	-	-
Stage 2	12	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	992	1069	1596
Stage 1	1011	-	-
Stage 2	1011	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	989	1069	1596
Mov Cap-2 Maneuver	989	-	-
Stage 1	1011	-	-
Stage 2	1008	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 1009	1596	-
HCM Lane V/C Ratio	-	- 0.017	0.003	-
HCM Control Delay (s)	-	- 8.6	7.3	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.1	0	-

Agenda Item

To: Reagan Parsons, Town Manager

From: B.J. Grieve, Planning Director

Subject: OA-02-21: Text Amendments to the Unified Development Ordinance (UDO); Petitioner, Town of Southern Pines Planning Division Staff

Date: January 11, 2022

I. SUMMARY OF AMENDMENT REQUEST:

The Planning Division of the Town of Southern Pines Community Development Department is proposing to amend the Unified Development Ordinance (UDO) with a variety of text amendments and are asking for Town Council review per UDO §2.17. The proposed amendments are described below, including the applicable UDO Sections and Exhibits. The specific text of each proposed amendment, with all proposed changes shown in red, with additions underlined and deletions ~~stricken~~, may be found in the attachments to this staff report.

The Planning Division's requested amendments to the UDO may be described as follows:

1. To amend the Preliminary Development Plan, Major Subdivision Preliminary Plat and Special Use Permit processes found in UDO §2.18, §2.20 and §2.21, respectively, to eliminate evidentiary hearings by the Planning Board and replace those hearings with "Preliminary Forums" per UDO §2.5.2 (as recently modified by Ordinance #1919) and GS §160D-301(b)(6).
2. To amend UDO §2.42.7, §4.13.5, §4.13.5 & 4.13.6, §5.9.4, §8.19.1 and §8.19.6 to remove criminal penalties for zoning violations per Session Law 2021-138, Part XIII and to clarify that violations of zoning shall simply be subject to a civil penalty in the form of a fine of up to \$50 for each day that the violation continues to exist.
3. To amend UDO §4.2.1 so that only building height is restricted rather than restricting both the building height and the maximum number of stories inside any building in the CB, GB, PD and I districts. This is a small correction of an oversight from a text amendment in 2015 (OA-02-15) that raised building heights to 45' from 35' but did not increase or remove the added restriction on the number of stories allowed within a building.
4. To amend UDO §4.3.13 to remove the term "DBH" so that only the term "caliper" is used through the UDO for the measurement of both existing and required trees, and to clarify that the caliper of a tree is the diameter of the tree measured at breast height.

II. PLANNING BOARD ACTION:

At the December 17, 2021 Regular Meeting of the Planning Board, the Planning Board held a public hearing to consider the proposed amendments to the Unified Development Ordinance (UDO). Planning staff distributed one written comment regarding the proposed text amendments that had been received prior to the hearing. Planning staff then presented a review of each of the four proposed amendments, by topic. Following town staff's presentation, two members of the public spoke regarding the proposed amendments to the UDO.

The Planning Board held a discussion of the proposed ordinance amendments. Following discussion, Mr. Cooper Carter made a motion that the first, second and fourth proposed amendments are consistent with the CLRP for reasons set forth in Attachment A to the staff report as revised by the Planning Board, and to recommend approval of the first, second and fourth text amendments and denial of the third text amendment in OA-02-21. The reason for recommending denial of the third text amendment is because allowing more than three stories within a 45' tall building will increase the intensity of development by increasing gross floor area thereby requiring more parking, creating more traffic, etc. and the proposed amendment had not adequately contemplated that effect. The motion was seconded by Mr. Andy Bleggi. The motion passed 6-0 on a roll call vote. A copy of the Planning Board's adopted Written Recommendation is attached to this report.

III. APPLICATION REVIEW:

A. Review Process:

Applications for text amendments are reviewed pursuant to UDO §2.17.

B. Criteria for Review:

When reviewing an application for a UDO text amendment, the hearing bodies (Planning Board and Town Council) shall consider and be guided by the following criteria, as set forth in UDO §2.17.10:

2.17.10. Criteria for UDO Text Amendments

In its review of an application for a UDO text amendment, the Hearing Bodies shall consider the following criteria. No single factor is controlling; instead, each must be weighed in relation to the other standards.

(A) Consistency. *The text amendment shall be consistent with the adopted Comprehensive Plan.*

(B) Health, Safety, and Welfare. *The amending ordinance must bear a substantial relationship to the public health, safety, or general welfare, or protect and preserve historical cultural places and areas.*

(C) Public Policy. *Certain public policies in favor of the text amendment may be considered. Examples include a need for affordable housing, economic development, mixed-use development, or sustainable environmental features, which are consistent with the Town, area, neighborhood, or specific plans.*

(D) Other Factors. *The Hearing Body may consider any other factors relevant to a text amendment application under state law.*

(E) Impacts. *The Hearing Bodies shall not regard as controlling any advantages or disadvantages to the individual requesting the change, but shall consider the impact of the proposed amendment on the public at large.*

C. Outside Agency Comments:

- A request for comment was emailed to representatives from the Regional Land Use Advisory Commission (RLUAC), North Carolina Department of Transportation (NCDOT), U.S. Fish and Wildlife Service, and representatives of the Town of Southern Pines on November 23, 2021. As of the completion of the staff report, no responses have been received.

IV. ATTACHMENTS:

1. Town Council Resolution regarding Plan Consistency (per NCGS 160D-407)
2. Signed Planning Board Resolution Adopting a Written Recommendation.
3. Current UDO Showing Edits

V. TOWN COUNCIL ACTION:

The Town Council shall consider the criteria for text amendments found in UDO §2.17.10, including consistency with the Comprehensive Long Range Plan. Per NCGS §160D-605, the Town Council shall approve a brief statement addressing plan consistency and reasonableness of the proposed amendments. The Town Council may wish to use the following motions for guidance:

I move that after considering the criteria for text amendments found in in UDO §2.17.10, the first of which is consistency with the Comprehensive Long Range Plan, the Town Council finds that:

1. The requested text amendments are consistent with the Comprehensive Long Range Plan and are a reasonable way to implement the Comprehensive Long Range Plan and therefore the Town Council adopts the Resolution that is included as an attachment to the staff report for OA-02-21;
2. The requested text amendments are consistent with the Comprehensive Long Range Plan and are a reasonable way to implement the Comprehensive Long Range Plan and therefore the Town Council adopts the Resolution that is included as an attachment to the staff report for OA-02-21 with the following edits or additions to Attachment A...
3. The requested text amendments are not consistent with the Comprehensive Long Range Plan and/or are unreasonable for the following reasons...

And, therefore, I move to:

1. Approve OA-02-21 (*if desired, the Town Council may state any additional reasons you support the proposed amendments, besides those already listed in Attachment A*).
2. Approval of OA-02-21 with the following changes... (*if any changes were made to the proposed revisions, list the changes and reason(s) the text was changed*);
3. Deny OA-02-21 (the Town Council state any reasons for denial of the proposed amendments).
4. Other...

(ATTACHMENT A)

**TOWN COUNCIL RESOLUTION TO ADOPT A STATEMENT
OF CONSISTENCY FOR AN ORDINANCE AMENDMENT
OA-02-21**

WHEREAS, Section 160D-701 of the North Carolina General Statutes specifies that zoning regulations shall be made in accordance with a comprehensive plan and shall be designed to protect the public health, safety and general welfare; and

WHEREAS, Section 160D-604 of the North Carolina General Statutes specifies that the Planning Board shall, with any ordinance amendment or zoning map amendment, advise and comment on whether the proposed action is consistent with the adopted comprehensive plan and on other matters as deemed appropriate by the Planning Board, and that the Planning Board shall provide this in the form of a written recommendation to the Town Council; and

WHEREAS, the Planning Board conducted a public hearing on December 16th, 2021 to listen to public comments, ask questions of the Town's planning staff and to consider ordinance amendment application OA-02-21; and

WHEREAS, the Town Council conducted a subsequent public hearing on January 11th, 2022 to listen to public comments, ask questions of the Town's planning staff and to consider ordinance amendment application OA-02-21; and

WHEREAS, NCGS 160D-605 requires that when accepting or rejecting any zoning text or map amendment, the Town Council approve a brief statement describing consistency or inconsistency with an adopted comprehensive plan.

NOW, THEREFORE BE IT RESOLVED that the Town Council finds that the revisions to the Unified Development Ordinance (UDO) that have been prepared by planning staff and reviewed by the Planning Board are reasonable, in the public interest and are generally consistent with the Town of Southern Pines Comprehensive Long Range Plan (CLRP). Amendments to replace Planning Board evidentiary hearings with preliminary forums and to eliminate criminal penalties for zoning violations are requirements of North Carolina law. These amendments are maintaining the accuracy and legality of our local zoning ordinance. An amendment to clarify that overall building height, not the number of stories, is what is intended to be regulated uniquely in CB, GB, PD and I zoning district, not the number of stories within a building, is helpful to both the design community and town staff to improve interpretation and administration of the UDO. Similarly, an amendment to use consistent terms for measuring trees in the Town's landscaping code is an amendment to the UDO that will improve interpretation and administration for future users of the

regulations. Whereas some revisions to the Town of Southern Pines UDO will implement a specific portion of the community vision and/or will help achieve specific goals and policies of the CLRP, the proposed revisions are intended to ensure that the UDO remains a legally-defensible and user-friendly document that will continue to guide growth and provide a framework for local land development regulations. Implementing the CLRP, and doing so in a manner that is clear and compliant with North Carolina statutes governing local use of development regulations, is certainly reasonable and in the public interest and consistent with the CLRP.

ADOPTED this the 11th day of January, 2022.

ATTEST:

TOWN OF SOUTHERN PINES

Elizabeth Robertson, Deputy Town Clerk

Carol R. Haney, Mayor



**PLANNING BOARD
RESOLUTION TO ADOPT A STATEMENT OF CONSISTENCY
FOR ORDINANCE AMENDMENT APPLICATION
OA-02-21**

WHEREAS, Section 160D-701 of the North Carolina General Statutes specifies that zoning regulations shall be made in accordance with a comprehensive plan and shall be designed to protect the public health, safety and general welfare; and

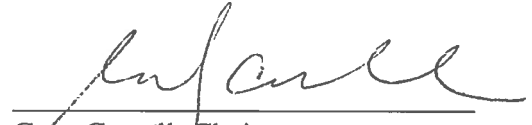
WHEREAS, Section 160D-604 of the North Carolina General Statutes specifies that the Planning Board shall, with any ordinance amendment or zoning map amendment, advise and comment on whether the proposed action is consistent with the adopted comprehensive plan and on other matters as deemed appropriate by the Planning Board, and that the Planning Board shall provide this in the form of a written recommendation to the Town Council; and

WHEREAS, the Planning Board conducted a public hearing on December 16th, 2021 to listen to public comments, ask questions of the Town's planning staff and to consider of ordinance amendment application OA-02-21.

NOW, THEREFORE BE IT RESOLVED that the Planning Board finds and recommends to the Town Council that the first, second and fourth revisions to the Unified Development Ordinance (UDO) that have been prepared by planning staff are reasonable, in the public interest and are generally consistent with the Town of Southern Pines Comprehensive Long Range Plan (CLRP). Amendments to replace Planning Board evidentiary hearings with preliminary forums and to eliminate criminal penalties for zoning violations are requirements of North Carolina law. These amendments are maintaining the accuracy and legality of our local zoning ordinance. Similarly, an amendment to use consistent terms for measuring trees in the Town's landscaping code is an amendment to the UDO that will improve interpretation and administration for future users of the regulations. Whereas some revisions to the Town of Southern Pines UDO will implement a specific portion of the community vision and/or will help achieve specific goals and policies of the CLRP, the proposed revisions are intended to ensure that the UDO remains a legally-defensible and user-friendly document that will continue to guide growth and provide a framework for local land development regulations. Implementing the CLRP, and doing so in a manner that is clear and compliant with North Carolina statutes governing local use of development regulations, is certainly reasonable and in the public interest and consistent with the CLRP.

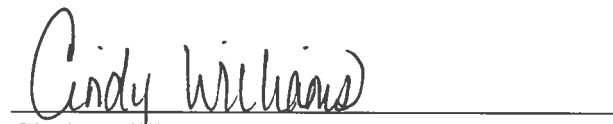
the speed limit on NC-22 and discussing with NCDOT potential improvements in the vicinity of 1605 Central Drive and Reservoir Park.

ADOPTED this the 16th day of December, 2021.



Gary Carroll, Chairman

ATTEST:



Cindy Williams
Secretary to the Planning Board

Southern Pines Unified Development Ordinance

Plan following the process for Town Council Action on zoning amendments, but only those conditions approved by the Council and consented to by the petitioner in writing may be incorporated into the Conditional Zoning District.

(H) Criteria

- (1) The proposed PDD satisfies the criteria for a zoning map amendment established in this chapter;
- (2) The Conceptual Development Plan represents an overall Development Pattern that is consistent with the goals and policies of the Comprehensive Plan, Official Zoning Map, Capital Improvements Program, and any other applicable planning documents adopted by the Town;
- (3) The proposed Development is appropriate for the area of the Town in which it is located; and
- (4) The proposed Development will not generate the need for inefficient extensions and expansions of public facilities, utilities and services.

(Ord. #1775)

(I) Effect of Approval

- (1) Approval of a Conceptual Development Plan constitutes acceptance that the proposed type, density and intensity of land use; the classification and arrangement of streets; the proposed phasing plan; and the nature of utility service proposed are consistent with the Comprehensive Plan.
- (2) Approval of a Conceptual Development Plan shall constitute acceptance of the general land-use mix, range of Development types and intensities, street patterns, drainage patterns, Lot patterns, parks and open space, and pedestrian and bicycle trails.
- (3) Action on the Conceptual Development Plan may include approval of a Conversion Schedule providing for the substitution of certain land uses for other land uses. The Conversion Schedule shall be based on relative peak hour trip generation, peak parking demand

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and other impacts affecting the function of on- and off-site infrastructure and land use compatibility.

- (4) Conceptual Development Plan approval does not ensure approval of a Preliminary Development Plan involving a substantially different concept, failing to meet specific requirements of these regulations, or failing to satisfy conditions of Conceptual Development Plan approval. Approval does not comprise any vesting of Development rights or any assurance that permits of any kind will be issued.

- (J) **Denial and Appeal.** If the Town Council finds that the Conceptual Development Plan fails to meet the criteria established in the section, it shall deny the Conceptual Development Plan application. The Applicant may appeal such denial to the Superior Court.

(Ord. #1716; Ord. #1703; Ord. #1919)

2.18.5. Preliminary Development Plan

- (A) **Purpose.** The purposes of the Preliminary Development Plan are to demonstrate that:

- (1) The proposed land use mix and intensity are consistent with the Comprehensive Plan, the purposes of the PDD and the approved Conceptual Development Plan, if applicable;
- (2) Proposed system of streets, trails and greenways are consistent with this UDO, as well as the mobility needs of the Town and the proposed Development;
- (3) The proposed Development is consistent with the ability to provide and maintain public facilities and services on which the Development, area and Town depend;
- (4) The proposed Development is well integrated with the protection of natural features, including Watersheds, woodlands and other natural features; and
- (5) The proposed Development Patterns and Development products are compatible with the character and vitality of the neighborhood and community.

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Southern Pines Unified Development Ordinance

- (B) **Applicability.** A Preliminary Development Plan is a mandatory step in the process for PDD approval and shall be required to show all contiguous land holdings and the detailed Development Patterns for the portions that are proposed to be developed. Preliminary Development Plan and Conceptual Development Plan approval are not required if the property has a valid approval of a Conceptual Master Plan and zoning under the prior PD, PUD or MU Development process.
- (C) **Preliminary Development Plan Process Overview.** The approval process and typical timing Preliminary Development Plan approval are summarized in Exhibits 2-10 and 2-11. Actual timing may vary based on the date of submittal and scheduled hearing dates.
- (D) **Initiation.** The Preliminary Development Plan application shall be filed with the Planning Director. The Preliminary Development Plan shall comply with the application requirements established in Appendix A, which combine and supplement the requirements for Zoning Map amendments and Preliminary Plat approval. The application shall include renderings illustrating the proposed Development Patterns and architectural character of Development.
- (E) **Completeness.** The Planning Director shall review the application and shall determine if the application has been submitted and is complete pursuant to the provisions of section 2.6. Upon finding that the application has been submitted and is complete and consulting with the TRC, the Planning Director shall prepare a report making findings and recommendations on the application and authorize notice to be provided in accordance with section 2.10.

Exhibit 2-10: Preliminary Development Plan Approval Process Summary

Preliminary Development Plan Process
Application, Review and Notice
Planning Board Public Hearing Preliminary Forum
Town Council Public Hearing

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Exhibit 2-11: Timing

Preliminary Development Plan Timing	
Completeness Review	5 business days (from Application Submittal)
Planning Board Public Hearing Preliminary Forum Notice	25 days (from Completeness Certification)
Planning Board Decision	30 days (from Planning Board Public Hearing Preliminary Forum)
Town Council Public Hearing	30 days (from Planning Board Decision)
Town Council Decision	30 days (from Town Council Public Hearing)

- (F) **Planning Board Action.** The Planning Board shall conduct ~~an evidentiary hearing and recommend approval, conditional approval or denial of a Preliminary Forum regarding~~ the Preliminary Development Plan.
- (G) **Town Council Action.** The Town Council shall conduct an evidentiary hearing and approve, conditionally approve or deny the Preliminary Development Plan based on the criteria in the following paragraphs. If the application is conditionally approved, the Town Council shall obtain written consent to conditions by the landowner or permit applicant. Approval of the preliminary plat shall be subject to the approval criteria established in section 2.20.4(G).
- (H) **Criteria**
- (1) The application demonstrates that it will achieve the purposes of the PDD and this section;
 - (2) The Preliminary Development Plan is consistent with the Conceptual Development Plan and conforms to all applicable provisions of this UDO;
 - (3) The proposed Development is located in an area of the Town that is appropriate; and
 - (4) The proposed Development will not cause the need for inefficient extensions and expansions of public facilities, utilities and services.

Amended

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Exhibit 2-12: Major Subdivision Approval Process Summary

Major Subdivision Process
Pre-application Conference (recommended)
Neighborhood Meeting (only under specified conditions)
Preliminary Plat (includes preliminary SUP approval)
Engineering Plan
Improvement Guarantees and Development Agreement
Final Plat (CUP becomes effective upon recordation)

(Ord. # 1716; Ord. # 1919)

2.20.2. Pre-Application Conference

A pre-application conference is recommended.

2.20.3. Neighborhood Meeting

A Neighborhood Information Meeting is encouraged, but optional for subdivisions.
(Ord. # 1919)

2.20.4. Preliminary Plat

(A) Purpose

- (1) The Preliminary Plat serves as a guide to future density, intensity, land uses, pedestrian and bicycle ways, trails, parks and open space, as well as Lot, street and drainage patterns. It is intended to ensure that a landowner investigates the broad effects that Subdivision of property will have on the site itself as well as on adjacent properties and public infrastructure systems.
- (2) Approval of a Preliminary Plat shall constitute acceptance of the land-use mix, Development intensity, general street patterns, drainage patterns, Lot patterns, parks and open space lands, and the

general layout of pedestrian and bicycle trails, provided that these may be modified in conjunction with subsequent approvals if additional information reveals Development constraints that are not evident during Preliminary Plat review.

- (3) The Preliminary Plat also provides feedback on the Special Use Permit (CUP) application from the Planning Board and Town Council.
 - (4) The Preliminary Plat, together with the attendant items required herein, is to provide a basis for the construction of the subdivision and its improvements as well as a draft of the Final Plat of the subdivision. To achieve this, the Applicant should consult with the Planning Director, Town Engineer and other agencies concerned with the subdivision and the improvements.
- (B) **Applicability.** Preliminary Plat approval is required prior to Final Plat approval for any major subdivision.
- (C) **Preliminary Plat Process Overview.** The approval process and typical timing Preliminary Plat approval are summarized in Exhibits 2-13 and 2-14. Actual timing may vary based on the date of submittal and scheduled hearing dates.

Exhibit 2-13: Preliminary Plat Approval Process Summary

Preliminary Plat Process
Application, Review and Notice
Planning Board Public Hearing Preliminary Forum
Town Council Public Hearing

Exhibit 2-14: Timing

Preliminary Plat Timing	
Completeness Review	5 business days (from Application Submittal)
Planning Board Public HearingPreliminary Forum Notice	25 days (from Completeness Certification)
Planning Board RecommendationDecision	30 days (from Planning Board Public HearingPreliminary Forum)
Town Council Public Hearing	30 days (from Planning Board Decision)
Town Council Decision (includes SUP approval)	30 days (from Town Council Public Hearing)

(D) **Initiation.** The Applicant shall file the Preliminary Plat application with the Planning Director and shall comply with the requirements established in Appendix A.

(E) **Completeness.**

- (1) The Planning Director shall review the application and shall determine if the application has been submitted and is complete pursuant to the provisions of Section 2.6.
- (2) Reviewing agencies shall act on a plat within thirty (30) days after the date the Preliminary Plat is found to be complete. A plat is deemed approved by a reviewing agency unless the reviewing agency has provided reasons for disapproval within the thirty (30) day period.
- (3) Upon finding that the application is complete and after consultation with the TRC, the Planning Director shall prepare a report making findings and recommendations on the application and authorize notice to be provided in accordance with Section 2.10.

(F) **Planning Board Action.** The Planning Board shall conduct a Preliminary Forum, an evidentiary hearing and recommend that the Town Council

~~approve, conditionally approve or deny the Preliminary Plat and SUP based on the following criteria.~~

(G) **Criteria**

- (1) The application is consistent with the approved Sketch Plat, if applicable.
- (2) The application is consistent with the Comprehensive Plan, as well as any other adopted plans for streets, alleys, parks, playgrounds, and public utility facilities;
- (3) The proposed subdivision complies with the UDO and applicable state and federal regulations;
- (4) The proposed subdivision, including its Lot sizes, density, access, and circulation, is compatible with the existing and/or permissible zoning and future land use of adjacent property;
- (5) The proposed subdivision will not have detrimental impacts on the safety or viability of permitted uses on adjacent properties; and
- (6) The proposed public facilities are adequate to serve the normal and emergency demands of the proposed Development, and to provide for the efficient and timely extension to serve future Development.

(H) **Town Council Action.** The Town Council shall conduct an evidentiary hearing and shall approve, conditionally approve or deny the Preliminary Plat based on the preceding criteria. If the application is conditionally approved, the Town Council shall obtain written consent to conditions by the landowner or permit applicant. The Town Council also shall approve, conditionally approve or deny the SUP based on the criteria established in the preceding paragraphs and in Section ~~2.21.62-21.7~~. The SUP shall not become effective until the Planning Director approves, and the Applicant records the Final Plat for the applicable area.

(I) **Amendments.** Amendments to a Preliminary Plat shall be approved in the following manners:

- (1) **Minor Amendments.** Minor amendments may be approved by the Planning Director without filing a new Preliminary Plat. Minor amendments include the following:

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However, the Town may accept any such offer of dedication by Resolution of the Council or by actually exercising control over and maintaining such facilities.

(L) Protection Against Defects

- (1) Prior to Town Council acceptance of improvements, a licensed professional retained by the Applicant shall certify to the Town that all facilities and improvements to be dedicated to the Town have been constructed in accordance with the requirements of this chapter.
- (2) Additionally, the Town Engineer will periodically inspect the installation of all facilities and improvements to be dedicated to the Town for compliance with all standards and specifications.

(M) **Maintenance of Dedicated Areas Until Acceptance.** All facilities and improvements with respect to which the Applicant makes an offer of dedication to public use shall be maintained by the Applicant until such offer of dedication is accepted.

(N) **Maintenance of Common Areas, Improvements and Facilities.** Applicant shall be responsible for maintaining all common areas, improvements or facilities required by this UDO except those areas, improvements or facilities with respect to which an offer of dedication to the public has been accepted by the appropriate public authority.

(Ord. # 1716)

2.21. SPECIAL USE PERMIT

2.21.1. Purpose

This section establishes a process and standards to approve certain uses that, because of unique characteristics or potential impacts on adjacent land uses, are not permitted in zoning districts as a matter of right. These uses may be permitted through the issuance of a Special Use Permit (SUP) after ensuring that the use complies with the SUP approval criteria. No inherent right exists to receive a SUP. Such authorization must be approved under a specific set of circumstances and conditions. Each application and situation is unique and may be subject to specific requirements to mitigate the impacts of the proposed use.

Amended

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(Ord. # 1919)

2.21.2. Applicability

The provisions of this section apply to any application for approval of a SUP. Only those uses that are authorized as Special Uses in a zoning district, as set forth in ~~Exhibit 3-15~~**Exhibit 3-15** shall be authorized by the Planning Board.

(Ord. # 1919)

2.21.3. SUP Process Overview.

The approval process and typical timing for Special Use Permit approval are summarized in Exhibits 2-17 and 2-18. Actual timing may vary based on the date of submittal and scheduled hearing dates.

Exhibit 2-17: SUP Approval Process Summary

SUP Process
Planning Board Public Hearing Preliminary Forum
Town Council Public Hearing

Exhibit 2-18: Timing

SUP Timing	
Completeness Review	5 business days (from Application Submittal)
Planning Board Preliminary Forum Preliminary Forum Public Hearing Notice	25 days (from Completeness Certification)
Planning Board Decision	30 days (from Planning Board Public Hearing Preliminary Forum)
Town Council Public Hearing	25 days (from Planning Board Decision)
Town Council Decision	30 days (from Town Council Public Hearing)

(Ord. # 1919)

2.21.4. Initiation

The SUP application shall be filed with the Planning Director in compliance with Appendix A.

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(Ord. # 1919)

2.21.5. Completeness

(A) The Planning Director shall review the application and shall determine if the application is complete pursuant to the provisions of section 2.6. No application is considered to have been submitted under this ordinance unless it is complete, unless all of the information required herein is included, and all filing fees have been paid.

(B) Upon finding that the application is complete and considering TRC comments, the Planning Director shall prepare a report making findings and recommendations on the application and authorize notice to be provided in accordance with section 2.10.

(Ord. # 1919)

~~2.21.6. — Public Hearing~~

~~The Planning Board shall conduct an evidentiary public hearing and recommend approval, conditional approval or denial of the application based on the following approval criteria:~~

(Ord. #1716; Ord. #1919)

2.21.7-2.21.6. Criteria

A Special Use is permitted only if the Applicant demonstrates that:

- (A) The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;
- (B) The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;
- (C) Adequate public facilities shall be provided as set forth herein;
- (D) The proposed use shall not impede the orderly Development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;

Amended

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(E) The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare; and

(F) The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use.

(Ord. # 1716; Ord.#1919)

2.21.8, 2.21.7. Conditions

(A) In approving any SUP, ~~the Planning Board may recommend, and~~ the Town Council may impose such reasonable standards, conditions, or requirements as it may deem necessary to protect the public health, safety and welfare. Standards and conditions shall not include requirements for which the Town does not have authority under statute to regulate, as identified in G.S. 160D-705(c). Such additional standards may include, but need not be limited to:

- (1) Adequate and reasonable mitigation of potentially adverse effects on adjacent properties. In making such a determination, consideration shall be given to:
 - (a) The location, type, orientation, design and height of buildings or structures;
 - (b) The type and extent of landscaping and screening on the site; and
 - (c) Whether the proposed use is consistent with any policy of the Comprehensive Plan that encourages mixed uses and/or densities;
- (2) Provision of adequate public facilities or services;
- (3) Dedication of easements or land in fee title;
- (4) Funding for extraordinary costs associated with the Development through direct contribution or agreement to establish an acceptable funding mechanism;
- (5) Creation of restrictive covenants;

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- (6) Development phasing;
- (7) Standards pertaining to traffic, circulation, noise, lighting, hours of operation, protection of environmentally sensitive areas, and similar characteristics;
- (8) Adequate measures to provide ingress and egress designed to minimize traffic hazards and to minimize traffic congestion on the public roads;
- (9) Provision of sustainable features, solar or other renewable energy source, rain water capture, storage and treatment or other sustainability requirement;
- (10) Provision of performance guarantee to the same extent and with the same limitations as in section 2.20.6 of this UDO and as acceptable in form, content, and amount to the Town Attorney to ensure continued compliance with all conditions and requirements as may be specified; or
- (11) Other conditions that the Town Council finds are necessary to achieve the purposes of this section and UDO.

(Ord. #1716; Ord. #1919)

- (B) The Town Council may not attach conditions that provide regulatory relief from specific requirements set forth in this UDO unless the Development in question presents extraordinary circumstances that justify the variation from the specified requirements.
- (C) All additional conditions or requirements authorized by this section are enforceable in the same manner and to the same extent as any other applicable requirement of this ordinance.

~~2.21.9.~~2.21.8. Planning Board Action

- (A) The Planning Board shall conduct ~~an evidentiary hearing on the application and recommend approval, conditional approval or denial of a Preliminary Forum on~~ the application.
- (B) In response to Planning Board ~~discussion at the Preliminary Forum~~recommendation, the Applicant may modify the application prior to

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Chapter 2. Development Processes

submission to the Town Council and the Planning Director may likewise revise the staff report.
(Ord. #1716; Ord. #1919)

~~2.21.10.~~2.21.9. Town Council Action

- (A) The Town Council shall take no final action on any matter before it without first obtaining a ~~recommendation from the Planning Board and a staff report from the Planning Director.~~
- (B) Within thirty (30) days of the Planning Board ~~recommendation~~Preliminary Forum, the Town Council shall conduct an evidentiary hearing and approve, conditionally approve or deny the Application. If the application is conditionally approved, the Town Council shall obtain written consent to conditions by the landowner or permit applicant. If the Application is denied, the Town Council shall advise the Applicant of the reason for denial.

(Ord. #1919)

~~2.21.11.~~2.21.10. Withdrawal and Subsequent Applications

- (A) An application for a SUP may be withdrawn at any time.
- (B) If the application has been advertised in compliance with state law, an application requesting substantially the same use on all or part of the same described land shall not be reconsidered within one (1) year of withdrawal.
- (C) No application for a SUP for any Lot or Parcel that requests the same use and same conditions shall be considered within one (1) year of a final decision denying the application.

(Ord. #1919)

~~2.21.12.~~2.21.11. Effect of Approval

- (A) Once a SUP is granted, such use may be enlarged, extended, increased in intensity, or relocated following the same process as the initial application unless the initial approval specifically established alternative procedures for consideration of future expansion or enlargement.
- (B) The provisions of this UDO relative to expansion of nonconforming uses, do not supersede this requirement unless the special permitted use for

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Southern Pines Unified Development Ordinance

which the Development approval was initially granted is no longer a use permitted as of right or as a special use in the zoning district in which it is located.

(Ord. #1919)

~~2.21.13.~~ 2.21.12. SUP Amendments

- (A) **Major Amendments.** Except as allowed under Minor Modifications below, all changes to approved Special Use Permits are major amendments and shall follow the same process applicable for the original approval.
- (B) **Minor Modifications.** The Planning Director is authorized to review and approve administratively a minor modification to an approved Special Use Permit, subject to the following limitations.
- (1) **General Limitations.** The minor modification:
- Does not involve a change in uses permitted or the density of overall Development permitted;
 - Does not increase the impacts generated by the Development on traffic, stormwater runoff, or similar impacts beyond what was projected for the original Development approval; and
 - Meets all other requirements of this UDO and complies with all conditions of the Special Use Permit approval.

(Ord. #1703; Ord. #1919)

~~2.21.14.~~ 2.21.13. Revocation of Special Use Permits.

Any Special Use Permit granted under the authority of this chapter is subject to revocation for any or all of the following reasons:

- Non-compliance with any conditions or requirements imposed by the UDO or by the Town Council at the time of approval of the Special Use Permit.
- Violation of any provisions of the UDO pertaining to the use of the land, construction or uses of buildings or structures or activities conducted on the premises by the Applicant or agents of the Applicant.
- Violation of any other applicable UDO provisions or any state or federal law or regulation by the Applicant or agents of the Applicant, provided that such violations relate to the conduct or activity authorized by the Special

Amended

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Use Permit or the qualifications of the Applicant or its agents to engage in such conduct or activity.

(Ord. #1919)

~~2.21.15.~~ 2.21.14. Recording Procedures

Development approvals for SUPs shall be recorded in the Moore County Registry. Nothing authorized by the SUP may be undertaken until the owner of record of the property signs a written acknowledgment that the approval has been issued so that the permit may be recorded and indexed under the record owner's name as grantor.

(Ord. #1919)

2.22. VARIANCE

2.22.1. Purpose and Applicability

The Board of Adjustment shall have the power to vary the certain UDO regulations when the Applicant demonstrates that the criteria in this section justify relief from the strict application of the regulations in this UDO. No change in permitted uses may be authorized by variance.

2.22.2. Variance Process Overview

The approval process and typical timing for Variances are summarized in Exhibits 2-19 and 2-20. Actual timing may vary based on the date of submittal and scheduled hearing dates.

Exhibit 2-19: Variance Approval Process Summary

Variance Process
Application, Review and Notice
Board of Adjustment Public Hearing

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the work be done immediately. Emergency work is defined to mean any work necessary to restore water, sewer, gas, phone, electric, and cable facilities. Repairs on other facilities in the public right-of-way may also be classified as emergency work by the Town Engineer. The person doing the work shall apply to the Town for a permit on the first working day after such work has commenced. No person performing emergency work shall fail to notify the Town police and fire departments prior to commencing such work.

(M) **Work in the Public Right of Way or Public Easement Exempt From Required Permit.** The following work activities do not require a permit under this chapter:

- (1) Public Projects: Maintenance and construction of public infrastructure by an employee or official of the Town designated by the Town Engineer, or a person under contract with the Town.
- (2) Private Projects: Maintenance and construction of non-Town-owned utilities by public utility companies, their employees or agents, in public utility easements less than fifteen (15) feet in width where no Town-operated utilities, transportation, or drainage system improvements are in place.
- (3) Maintenance of Landscaping and Surface Improvements: Maintenance by the adjacent property owner of landscaping and surface improvements located within a public easement, or within the public right-of-way as it abuts a property outside of any street section, behind the curb and gutter or edge of pavement. "Maintenance" generally includes, without limitation, watering, mowing, raking, and weeding activities.

~~2.42.7. Violation~~

~~The violation of this section shall constitute a misdemeanor and shall be punishable as such.~~

Chapter 2. Development Processes

2.43. HOME OCCUPATION

2.43.1. Applicability

Except as exempted in this UDO, it shall be unlawful for any person to operate a home occupation without first obtaining a Home Occupation Permit.

(Ord. #1703)

2.43.2. Initiation

An application for a home occupation shall be filed with the Planning Director in accordance with Appendix A.

2.43.3. Action

The Planning Director shall issue the Home Occupation Permit if the Applicant demonstrates that the home occupation will comply with all applicable requirements of this UDO.

2.44. TEMPORARY USE PERMITS

A Temporary Use Permit shall be secured from the Planning Director prior to establishing any of the uses described in this section. The Planning Director shall issue the Temporary Use Permit upon finding that the proposed use will comply with all applicable laws and the provisions of this UDO.

2.44.1. Construction Dumpsters

In all districts, the following requirements shall apply:

- (A) No construction dumpster may impede pedestrian or vehicular access to and from adjoining properties or otherwise create an unsafe condition for pedestrian and vehicular traffic;
- (B) Every construction dumpster shall clearly identify the owner of such dumpster and telephone number and shall be clearly labeled for the purpose of containment of construction materials only; and
- (C) Every construction dumpster shall be routinely emptied so it does not create an unsightly or dangerous condition on the property resulting from the deposit, existence, and accumulation of construction materials.

Amended

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Chapter 4. Development and Design Standards

Chapter 4 Contents

4.1. Generally 4-1

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4.3. Landscaping 4-6

4.4. Tree and Ecosystem Protection ~~4-174-16~~

4.5. Off-Street Parking and Loading..... ~~4-194-18~~

4.6. Signs ~~4-304-29~~

4.7. Fences and Walls ~~4-424-41~~

4.8. Lighting ~~4-434-42~~

4.9. Open Space / Greenspace ~~4-514-49~~

4.10. Development Design Standards ~~4-544-52~~

4.11. Transportation (Streets) ~~4-674-64~~

4.12. Transportation /Traffic Analyses ~~4-854-82~~

4.13. Flood Hazard Areas..... ~~4-904-86~~

4.14. Drainage, Erosion Control, Storm Water Management
..... ~~4-1104-107~~

4.15. Utilities..... ~~4-1124-108~~

4.1. GENERALLY

The standards in this section are intended to be minimum standards for Development of buildings, sites and infrastructure. Stricter standards or relief from standards may be established through the procedures in chapter 2, the zoning district standards in chapter 3, the specific use standards in chapter 5 or the Development Patterns in chapter 6.

Amended

4.2. LOT DEVELOPMENT STANDARDS

Lot Development standards are summarized in Exhibit 4-1. Guidance for applying these is included in sections 4.2.1 (height), 4.2.2 (setbacks), and 4.2.3 (lot size, density and width).

4.2.1. Height

- (A) Subject to the provisions of this section, buildings and structures shall not exceed the maximum Heights established in Exhibit 4-1.
- (B) ~~Except as specifically provided in this section, the~~ Height of a building is the vertical distance measured from the mean elevation of finished grade at the front of the building to the highest point of the building.
- (C) A Story includes any Floor above the mean elevation of finished grade at the front of the building. Where Floor levels are staggered, the number of Stories is the number of Floors counting vertically from the point of the mean elevation of finished grade at the Building Front.
- (D) The base of any access door to a roof shall not be higher than six (6) inches above the lowest point of any parapet wall or six (6) inches above the lowest point of a roof’s surface, whichever is greater. The top of a roof access point shall not be greater than nine (9) feet above the base of the door.
- (E) Roofs with slopes greater than seventy-five (75) percent are regarded as walls.
- (F) In the CB, GB and PD Districts, ~~buildings are limited to a maximum of three (3) stories with~~ the ceiling of the top story ~~shall not to exceed~~ forty-five (45) feet in Height. Buildings must have pitched or mansard roofs, or provide a parapet along any side facing a street.
(Ord. # 1716)
- (G) In the I districts, ~~buildings are limited to a maximum of four (4) stories.~~ Buildings must have pitched or mansard roofs, or provide a parapet along any side facing a street. Buildings that are taller than thirty-five

7-1-21

4-1

4.3.12. Request for Extension of Compliance

- (A) The Town recognizes that land Development occurs continuously, and that vegetation used in landscaping or screening should be planted at certain times to insure the best chance of survival. To ensure compliance and to reduce the potential expense of replacing landscaping or screening materials that were installed at an inappropriate time or under unfavorable conditions for planting, an extension of compliance with landscaping requirements may be allowed for a period not longer than ninety (90) days.
- (B) In the event of an extension, the Applicant shall provide a letter acknowledging a performance guarantee (letter of credit or performance bond) adequate to cover one hundred and fifty (150) percent of the installed landscaping costs.

(Ord. # 1716)

- (C) The letter shall also acknowledge that the Applicant for the Building Permit is aware of all landscaping and screening requirements and will comply with those requirements within ninety (90) days or discontinue use of the property.
- (D) If the initial letter of request for extension of compliance with landscaping requirements has expired and conditions are still deemed unsuitable for planting, the Applicant may request one additional extension of up to ninety (90) days. Failure to comply with the provisions of this section within the time noted in the letter of request for the extension of compliance with landscaping requirements shall be deemed a violation of this ordinance.
- (E) The Applicant shall acknowledge that while a Conditional Certificate of Compliance may be issued, no Final Certificate of Compliance will be

¹ Single trees that have developed as individual specimens are the best candidates for retention. For the most part, trees that have developed as stands, particularly intermediate and suppressed trees will not function well as individuals. They are

issued while there is an active (pending) letter of request for extension of compliance with landscaping requirements, unless a performance guarantee (such as a letter of credit or performance bond) sufficient to cover 125 percent of the installed landscaping costs has been posted with the Inspections or Planning Department.

4.3.13. Existing Vegetation Credits

- (A) Existing healthy vegetation shall be preserved when possible and may be credited toward landscape requirements. Vegetation to be saved and protection measures to be used during grading and construction shall be specified on site plans. Protection measures maintain a radius of at least six (6) feet around existing plants or provide a radius of one (1) foot for each one (1) inch DBH of trees, whichever is greater.
- (B) Credit given for protected trees shall be equal to the ~~value-caliper~~ of the ~~tree DBH~~ in inches (~~caliper is the diameter of the tree measured at breast height~~) of each protected tree divided by two (2) inches, but no fraction thereof. Trees so credited must be at least two (2) inch Caliper and be shown on the grading, erosion control and landscape plans. Protection of natural groups of trees is encouraged, with each tree within the grouping being credited as if standing alone; however, the protected ground area or tree save area shall encompass all trees within the grouping.¹
- (C) The site plan shall:
 - (1) Indicate trunk locations, DBH and drip lines of all trees and/or tree stands to be preserved (Note: When stands of trees will be preserved well away from construction areas, it is not necessary to plot accurate trunk locations);

prone to failure and decline when their neighbors are removed. Not only are the trees unstable, but they contribute little to the appearance or landscape quality of the new project.

- (3) If a manufactured home is placed within Zone A, AO, AE, or A1-30 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per 4.13.9(C)(2).
- (4) If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; a professional engineer's certified report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation shall all be submitted by the permit Applicant prior to issuance of a permit.
- (5) Certification Exemptions. The following structures, if located within Zone A, AO, AE or A1-30, are exempt from the elevation/floodproofing certification requirements specified in paragraphs (D)(2) and (D)(3) of this section:
 - (a) Recreational Vehicles meeting requirements of section 4.13.9(F)(1);
 - (b) Temporary structures meeting requirements of 4.13.9(G); and
 - (c) Accessory Structures less than 150 square feet meeting requirements of section 4.13.9(H).

4.13.5. Duties and Responsibilities of the Administrator

The duties of the Administrator as they relate to the administration and enforcement of the provisions of this article shall include, but not be limited to:

- (A) Review all floodplain Development applications and issue permits for all proposed Development within Special Flood Hazard Areas to assure that the requirements of this article have been satisfied.

- (B) Advise Applicant that additional federal or state permits (wetlands, endangered species, erosion and sedimentation control, riparian buffers, mining, and the like) may be required, and require that copies of such permits be provided and maintained on file with the permit.
- (C) Notify adjacent communities and the North Carolina Department of Crime Control and Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).
- (D) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- (E) Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of section 4.13.11 are met.
- (F) Obtain actual elevation (in relation to mean sea level) of the reference level (including basement) and all attendant utilities of all new or substantially improved structures, in accordance with section 4.13.4(B).
- (G) Obtain actual elevation (in relation to mean sea level) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with section 4.13.4(D).
- (H) Obtain actual elevation (in relation to mean sea level) of all public utilities in accordance with section 4.13.4(D).
- (I) When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with section 4.13.4(D) and section 4.13.9(B).
- (J) Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas (for example, where there appears

to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

- (K) When Base Flood Elevation (BFE) data has not been provided in accordance with 4.13.3(B), obtain, review, and reasonably utilize any BFE data, along with floodway data or non-encroachment area data available from a federal, state, or other source, including data developed pursuant to section 4.13.10(B)(2), in order to administer the provisions of these Flood Hazard Area regulations.
- (L) When Base Flood Elevation (BFE) data is provided but no floodway nor non-encroachment area data has been provided in accordance with 4.13.3(B), obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a federal, state, or other source in order to administer the provisions of this article.
- (M) When the lowest ground elevation of a Parcel or structure in a Special Flood Hazard Area is above the Base Flood Elevation, advise the property owner of the option to apply for a Letter of Map Amendment (LOMA) from FEMA and maintain a copy issued by FEMA in the floodplain Development permit file.
- (N) Permanently maintain all records that pertain to the administration of this article and make these records available for public inspection.
- (O) Make on-site inspections of work in progress. As the work pursuant to a permit progresses, the Administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the Administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action; provided, however, that the appropriate consent has been given for inspection

of areas not open to the public or that an appropriate inspection warrant has been secured.

- (P) Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this article, the Administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. ~~Violation of a stop-work order constitutes a misdemeanor.~~
- (Q) Revoke floodplain Development permits as required. The Administrator may revoke and require the return of the permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, or specifications; for refusal or failure to comply with the requirements of state or local laws; or for false statements or misrepresentations made in securing the permit. Any permit mistakenly issued in violation of an applicable state or local law may also be revoked.
- (R) Make periodic inspections throughout all Special Flood Hazard Areas within the jurisdiction of the community. The Administrator and each member of his or her inspections department shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.
- (S) Follow through with corrective procedures of section 4.13.3(H).
- (T) Review, provide input, and make recommendations for variance requests.
- (U) Maintain a current map repository to include, but not limited to, the FIS Report, FIRM and other official flood maps and studies adopted in accordance with 4.13.3(B), including any revisions thereto including

Letters of Map Change, issued by FEMA. Notify State and FEMA of mapping needs.

- (V) Coordinate revisions to FIS Reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-F) and Letters of Map Revision (LOMR).

4.13.6. Corrective Procedures

- (A) Violations to be Corrected: When the Administrator finds violations of applicable State and local laws, it shall be his or her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.
- (B) Actions in Event of Failure to Take Corrective Action: If the owner of a building or property shall fail to take prompt corrective action, the Floodplain Administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:
- (1) that the building or property is in violation of the floodplain management regulations;
 - (2) that a hearing will be held before the Administrator at a designated place and time, not later than ten (10) days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and
 - (3) that following the hearing, the Administrator may issue an order to alter, vacate, or demolish the building; or to remove fill as applicable.
- (C) Order to Take Corrective Action: If, upon a hearing held pursuant to the notice prescribed above, the Administrator shall find that the building or Development is in violation of these Flood Hazard Regulations, he or she shall issue an order in writing to the owner,

requiring the owner to remedy the violation within a specified time period, not less than sixty (60) calendar days, nor more than one hundred eighty (180) calendar days. Where the Administrator finds that there is imminent danger to life or other property, he or she may order that corrective action be taken in such lesser period as may be feasible.

- (D) Appeal: Any owner who has received an order to take corrective action may appeal the order to the Board of Adjustment by giving notice of appeal in writing to the Administrator and the clerk within ten (10) days following issuance of the final order. In the absence of an appeal, the order of the Administrator shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.
- (E) Failure to Comply with Order: If the owner of a building or property fails to comply with an order to take corrective action for which no appeal has been made or fails to comply with an order of the Board of Adjustment following an appeal, the owner shall be subject to a civil penalty in the amount of \$50 per day guilty of a misdemeanor and shall be punished at the discretion of the court.

Commented [BG1]: Replicate language from Chapter 8. Search by infraction and criminal, etc.

4.13.7. Variance Procedures

- (A) The Board of Adjustment shall hear and decide requests for variances from the requirements of these Flood Hazard Area Regulations. Any person aggrieved by the decision of the Board of Adjustment may appeal such decision in accordance with the provisions of section 2.22.
- (B) Variances may be issued by the Board of Adjustment for:
- (1) The repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and that the variance is the minimum necessary to preserve the historic character and design of the structure.

5.9.3. Authorization

- (A) A Town zoning permit shall be obtained by the property owner (as listed in the Moore County, North Carolina property tax records) for any Lot or Parcel proposed to accommodate a food truck, trailer or cart with exception to those with an approved Food Truck Campus. If at any time evidence is provided that the permitted Lot or Parcel is being used other than in compliance with these regulations, the zoning permit shall be rendered null and void, and the owner may be subject to penalties as set forth in Section
- (B) This zoning permit shall be renewed annually.
- (C) The operator, including those operating within a Food Truck Campus, shall obtain a Town food truck, trailer or cart permit annually. Prior to the issuance of the permit, the operator shall provide evidence of having obtained a Town zoning permit or Special Use Permit (as described in paragraph (A) of this subsection), a food vending permit from the Moore County Environmental Health Department, a North Carolina Sales and Use Certificate for collecting and paying the proper sales taxes, and a means for the disposal of grease within an approved grease disposal facility.
(Ord. #1919)
- (D) If at any time evidence of the improper disposal of liquid waste or grease is discovered, the food truck permit for the operator shall be rendered null and void and the food truck, trailer or cart shall be required to cease operation immediately. The operator may be to penalties as set forth in Section 5.9.5.
- (E) Copies of the zoning permit and food-vending permit shall be kept in the food truck, trailer or cart at all times and be available upon request.
- (F) If at any time, the Moore County Environmental Health Department revokes or suspends the issued food-vending permit, the Town permit

for the food truck, trailer or cart business shall be revoked or suspended simultaneously.

5.9.4. Penalties

- (A) This section shall be enforced ~~by law as provided in G.S. 160A-175 or as provided in Chapter 8 of this code. All criminal sanctions shall be up to the dollar limit provided in G.S. 14-4(a), as currently enacted or as hereafter amended, or any similar limitations.~~

~~(B) The penalty for violating this section shall be as follows: For the first offense, the fine shall be \$100. For the second offense, the fine shall be \$300. The retail sales food truck permit and/or the Special Use Permit shall be revoked after the third offense.~~

(Ord. #1820; Ord. #1919)

5.10. HOME OCCUPATIONS**5.10.1. Purpose**

The purpose of these regulations is to

- (A) To permit the conduct of home occupations as a secondary use to a Dwelling Unit, whether owner or renter occupied;
- (B) To ensure that such home occupations are compatible with, and do not have a harmful effect on nearby residential properties and uses;
- (C) To adequately protect existing residential neighborhoods from dust, odors, noise, traffic and/or other potentially adverse effects of home occupations;
- (D) To allow residents of the community to use their homes as a work place and a source of livelihood, under certain specified standards, conditions and criteria;
- (E) To enable the fair and consistent enforcement of these home occupation regulations; and

Amended

7-1-21

5-10

8.18.2. Complaints Regarding Violations

Whenever the Planning Director receives a written, Signed complaint alleging a violation of this UDO, he shall request the Code Enforcement Officer to assist with the investigation of the complaint, take whatever action is warranted and inform the complainant in writing what actions have been or will be taken.

8.18.3. Persons Liable

The owner, tenant or occupant of any building or land or part thereof and any architect, builder, contractor, agent or other person who participates in, assists, directs, creates or maintains any situation that is contrary to the requirements of this chapter may be held responsible for the violation and suffer the penalties and be subject to the remedies herein provided.

8.18.4. Procedures upon Discovery of Violations

- (A) If the Planning Director finds that any provision of this chapter is being violated, he or she shall send a written notice to the holder of the Development Approval and owner of the property involved (if that person is not the holder of the Development Approval), indicating the nature of the violation and ordering the action necessary to correct it. Additional written notices may be sent at the Planning Director's discretion.

(Ord. #1919)

- (B) The final written notice (and the initial written notice may be the final notice) shall state what action the Planning Director intends to take if the violation is not corrected and shall advise that the Planning Director's decision or order may be appealed to the Board of Adjustment in accordance with section 2.23.

(Ord. #1919)

- (C) Notwithstanding, the foregoing, in cases when delay would seriously threaten the effective enforcement of this chapter or pose a danger to the public health, safety or welfare, the Planning Director may seek enforcement without prior written notice by invoking any of the penalties or remedies authorized in this UDO.

Amended

7-1-21

8.18.5. Violations to Be Corrected

When the Planning Director finds violations of applicable state and local laws, it shall be his or her duty to notify the owner of the building of the violation. The owner shall each immediately remedy the violations of law in the property he or she owns.

(Ord. #1919)

8.19. ENFORCEMENT

8.19.1. Stop Orders

Whenever a building or part thereof is being constructed, reconstructed, altered or repaired in violation of this article, the Planning Director may order the work to be immediately stopped if the violation poses an imminent threat to life, safety and/or the environment; or where no permits have been issued prior to work commencing. The stop order shall be in writing and directed to holder of the Development Approval and owner of the property involved (if the person is not the holder of the Development Approval). The stop order shall state the specific work to be stopped, the specific reasons for the stoppage, and the conditions under which the work may be resumed. ~~Violation of a stop order constitutes a misdemeanor.~~

(Ord. #1919)

8.19.2. Revocation of Permits or Approvals

- (A) A Development Approval may be revoked by the Permit Issuing Authority (in accordance with the provisions of this section) if the permit recipient fails to develop or maintain the property in accordance with the plans submitted, the requirements of this chapter or any additional requirements lawfully imposed by the Permit Issuing Authority.

(Ord. #1919)

- (B) Before a Development Approval may be revoked, the Development review and approval process required for issuance of the Development Approval shall be complied with. The notice shall inform the permit recipient of the alleged grounds for the revocation.

(Ord. #1919)

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Southern Pines Unified Development Ordinance

- (C) A motion to revoke a permit shall include, in so far as practicable, a statement of the specific reasons or findings of fact that support the motion. The burden of presenting evidence sufficient to authorize the Permit Issuing Authority to conclude that a permit should be revoked for any of the reasons set forth in this section shall be upon the party advocating that position. The burden of persuasion shall also be upon that party.
- (D) Before a Development Approval may be revoked, the Planning Director shall give the permit recipient ten (10) days notice of intent to revoke the permit and shall inform the recipient of the alleged reasons for the revocation and of his or her right to obtain an informal hearing on the allegations. If the permit is revoked, the Planning Director shall provide to the permitted a written statement of the decision and the reasons therefore.
(Ord. #1919)
- (E) No person may continue to make use of land or buildings in the manner authorized by any Development Approval after such approval has been revoked in accordance with this section.
(Ord. #1919)

8.19.3. Actions in Event of Failure to Take Corrective Action

If the owner of a building or property shall fail to take prompt corrective action, the Planning Director shall give him or her written notice, by certified or registered mail, to the owner's last known address or by personal service:

- (A) That the building or property is in violation of this UDO.
- (B) That a hearing will be held before the Planning Director at a designated place and time, not later than ten (10) days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and,
- (C) That following the hearing, the Planning Director may issue such order to alter, vacate, or demolish the building or structure as appropriate.
(Ord. #1919)

Amended

7-1-21

Chapter 8. Administration

8.19.4. Order to Take Corrective Action

If, upon a hearing held pursuant to the notice prescribed above, the Planning Director shall find that the building or Development is in violation of this UDO, he shall make an order in writing to the owner, requiring the owner to remedy the violations, within such period, not less than thirty (30) days, the Planning Director may prescribe; provided, that where the Planning Director finds that there is imminent danger to life or other property, he may order that corrective action be taken in such lesser period as may be feasible.
(Ord. # 1716)

8.19.5. Appeal

Any owner who has received an order to take corrective action may appeal in writing to the Board of Adjustment and the clerk within ten (10) days following issuance of the final order. In the absence of an appeal, the order of the Planning Director shall be final. The Board of Adjustment shall hear appeals within a reasonable time and may affirm, modify and affirm, or revoke the order.
(Ord. #1919)

8.19.6. Penalties

- (A) Any person found to be violating this UDO or failure to comply with any of its requirements including violations of any conditions, safeguards or standards established in connection with grants of approval shall be ~~guilty of a misdemeanor~~, subject to fines and other civil penalties as allowed by law.
- (B) Violations of the provisions of this chapter, or failure to comply with any of its requirements including violations of any conditions and safeguards established in connection with grants of variances or Special Use Permits shall ~~be subject to constitute a misdemeanor, punishable by a fine of up to fifty (50) dollars per day for each day that the violation continues to exist, or a maximum thirty (30) days imprisonment.~~
(Ord. # 1716; Ord. #1919)
- (C) If the offender fails to pay this ~~civil~~ penalty within ten (10) days after being ~~cited for notified of~~ a violation, the penalty may be recovered by the Town in a civil action in the nature of debt. A civil penalty may not be appealed

8-14

(ATTACHMENT A)

**TOWN COUNCIL RESOLUTION TO ADOPT A STATEMENT
OF CONSISTENCY FOR AN ORDINANCE AMENDMENT
OA-02-21**

WHEREAS, Section 160D-701 of the North Carolina General Statutes specifies that zoning regulations shall be made in accordance with a comprehensive plan and shall be designed to protect the public health, safety and general welfare; and

WHEREAS, Section 160D-604 of the North Carolina General Statutes specifies that the Planning Board shall, with any ordinance amendment or zoning map amendment, advise and comment on whether the proposed action is consistent with the adopted comprehensive plan and on other matters as deemed appropriate by the Planning Board, and that the Planning Board shall provide this in the form of a written recommendation to the Town Council; and

WHEREAS, the Planning Board conducted a public hearing on December 16th, 2021 to listen to public comments, ask questions of the Town's planning staff and to consider ordinance amendment application OA-02-21; and

WHEREAS, the Town Council conducted a subsequent public hearing on January 11th, 2022 to listen to public comments, ask questions of the Town's planning staff and to consider ordinance amendment application OA-02-21; and

WHEREAS, NCGS 160D-605 requires that when accepting or rejecting any zoning text or map amendment, the Town Council approve a brief statement describing consistency or inconsistency with an adopted comprehensive plan.

NOW, THEREFORE BE IT RESOLVED that the Town Council finds that the revisions to the Unified Development Ordinance (UDO) that have been prepared by planning staff and reviewed by the Planning Board are reasonable, in the public interest and are generally consistent with the Town of Southern Pines Comprehensive Long Range Plan (CLRP). Amendments to replace Planning Board evidentiary hearings with preliminary forums and to eliminate criminal penalties for zoning violations are requirements of North Carolina law. These amendments are maintaining the accuracy and legality of our local zoning ordinance. An amendment to clarify that overall building height, not the number of stories, is what is intended to be regulated uniquely in CB, GB, PD and I zoning district, not the number of stories within a building, is helpful to both the design community and town staff to improve interpretation and administration of the UDO. Similarly, an amendment to use consistent terms for measuring trees in the Town's landscaping code is an amendment to the UDO that will improve interpretation and administration for future users of the

regulations. Whereas some revisions to the Town of Southern Pines UDO will implement a specific portion of the community vision and/or will help achieve specific goals and policies of the CLRP, the proposed revisions are intended to ensure that the UDO remains a legally-defensible and user-friendly document that will continue to guide growth and provide a framework for local land development regulations. Implementing the CLRP, and doing so in a manner that is clear and compliant with North Carolina statutes governing local use of development regulations, is certainly reasonable and in the public interest and consistent with the CLRP.

ADOPTED this the 11th day of January, 2022.

ATTEST:

TOWN OF SOUTHERN PINES

Elizabeth Robertson, Deputy Town Clerk

Carol R. Haney, Mayor

**AN ORDINANCE AMENDING THE UNIFIED DEVELOPMENT ORDINANCE
OF THE TOWN OF SOUTHERN PINES**

THAT WHEREAS, the Town of Southern Pines planning staff prepared a copy of the Town of Southern Pines Unified Development Ordinance (UDO) showing proposed changes to the text and posted a staff report containing the proposed changes and other documents to the Town of Southern Pines' website on December 9th, 2021.

THAT WHEREAS, after notice being duly given according to the UDO, a public hearing was held before the Town of Southern Pines Planning Board during its regular meeting on December 16, 2021 at 6:00 PM for the purpose of considering and making a recommendation on the proposed changes to the UDO; and

WHEREAS, after holding a public hearing and discussing the proposed changes to the UDO, the Planning Board did determine that three of the four the proposed changes are consistent with the Comprehensive Long Range Plan (CLRP) and are reasonable as an implementation of the CLRP, and did therefore unanimously vote to recommend approval of three of the four proposed changes to the Town Council.

THAT WHEREAS, after notice being duly given according to law, a public hearing was held before the Town Council of Southern Pines, North Carolina, during its regular meeting on January 11, 2022 at 6:00 PM for the purpose of considering an ordinance amending the Unified Development Ordinance of the Town of Southern Pines, North Carolina; and

WHEREAS, after the completion of said public hearing, and upon consideration of any comments, objections or presentations at the hearing, the Town Council of the Town of Southern Pines deems it advisable and in the best interest of the Town of Southern Pines that the Unified Development Ordinance of the Town of Southern Pines be changed as herein set forth below.

NOW, THEREFORE, BE IT ORDAINED AND ESTABLISHED by the Town Council of the Town of Southern Pines, North Carolina assembled at Regular Meeting on the 11th day of January, 2022:

Section 1. That the Southern Pines Unified Development Ordinance is modified as depicted using underlining for additions and strikeouts for deletions on the attached pages.

Section 2. This amendment is effective upon signature.

Adopted this 11th day of January, 2022.

ATTEST:

TOWN OF SOUTHERN PINES

Elizabeth Robertson, Deputy Town Clerk

Carol R. Haney, Mayor

APPROVED AS TO FORM:

Douglas R. Gill, Town Attorney

I certify that this Ordinance was adopted by the Town Council of the Town of Southern Pines at its meeting on January 11, 2022 as shown in the Minutes of the Town Council meeting for that date.

Elizabeth Robertson, Deputy Town Clerk

Agenda Item

To: Reagan Parsons, Town Manager

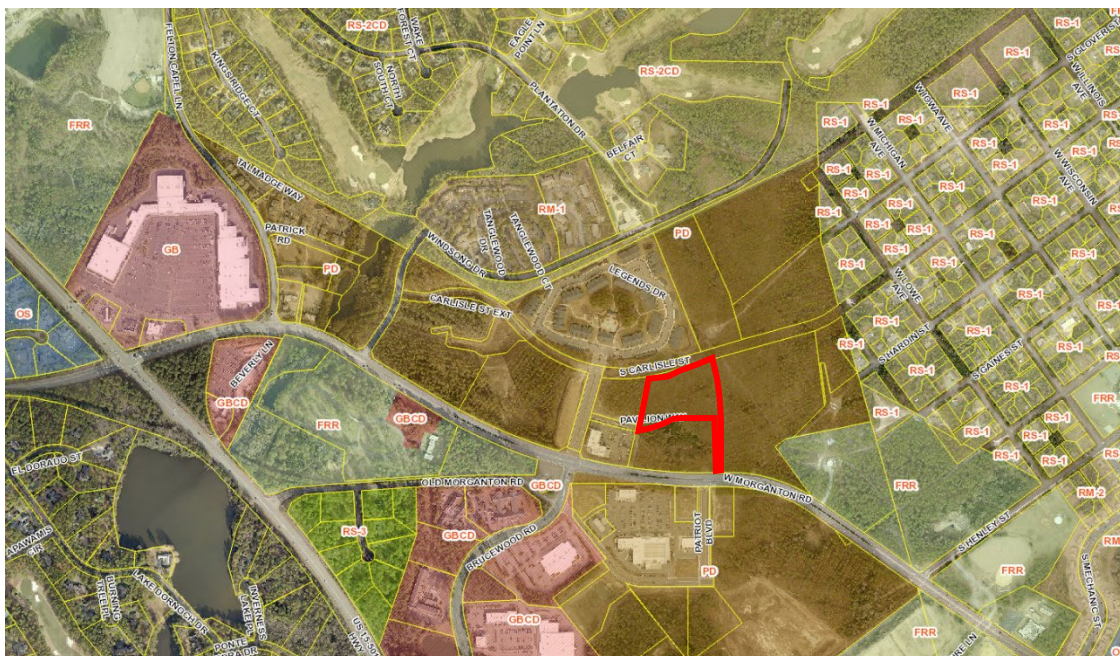
From: Suzy Russell, Planner II

Subject: PD-10-21: Planned Development - Preliminary Development Plan for the new development of a medical office building; Applicant: Morganton Park Realty, LLC; Charles Gregg; Authorized Agent: Bob Koontz of Koontz Jones Design PLLC

Date: January 11, 2022

I. SUMMARY OF APPLICATION REQUEST:

The applicant has applied for a preliminary development plan for the purpose of developing a medical office building. The proposed Pinehurst Surgical Clinic – Morganton Park Site 3N medical office building will be located in the planned development known as Morganton Park North. It would be developed as phase 8 of the PD. The medical office building is a 60,000-68,000 square foot building located on 5.19 acres that are currently located in the Town of Southern Pines extraterritorial jurisdiction and must be annexed. The subject property is located along S Carlisle Street on the western side of Patriot Boulevard and Pavilion Way fronts its southern boundary. The subject property is zoned PD planned development, lies within the Morganton Road Overlay and is designated as traditional mixed use on the future land use map in the comprehensive long-range plan. The GIS mapping shows a gravity sewer main line and water main line exists on S Carlisle Street. The subject property is identified as PIN: 857100590565 (PARID: 20190271) and per the Moore County tax records, the property owners are listed as Robert W & Julie VanCamp.



II. PLANNING BOARD ACTION:

At the December 16, 2021 Regular meeting of the Planning board, with six members present and one member, Kim Wade, absent, the Planning Board held a public forum for application PD-10-21. Planning staff, Ms. Suzy Russell, Planner II, presented a review of the preliminary development plan application. Following staff's report, the applicant's agent's representative, Mr. Paul Saathoff, presented the case for consideration. The Planning Board followed with questions for Mr. Saathoff.

After the closing of the of the preliminary forum, on a unanimous vote of 6-0, with one member absent, the Planning Board adopted a list of issues to transmit to the Town Council for that body to consider:

- The applicant requested a waiver from the Morganton Park Overlay District parking standards which would limit parking to 272 spaces, given the proposed 68,000 square foot building. The applicant would like to maximize parking standards to 292 spaces.
- The Town Council should consider the TIA for PD-10-21 and the overall traffic situation in Morganton Park North, in particular the peak traffic times for Southern Pines Elementary School.

III. STAFF REVIEW:

A. Criteria for Review:

The criteria for review and approval of the second step in the process, Preliminary Development Plan, are as follows:

Preliminary Development Plan - UDO § 2.18.5(H):

1. *The application demonstrates that it will achieve the purposes of the PDD and this section;*
2. *The Preliminary Development Plan is consistent with the Conceptual Development Plan and conforms to all applicable provisions of this UDO;*
3. *The proposed Development is located in an area of the Town that is appropriate; and*
4. *The proposed Development will not cause the need for inefficient extensions and expansions of public facilities, utilities and services.*

B. Staff Comments:

i. Consistency evaluation with the Unified Development Ordinance (UDO) and the Morganton Park North Conceptual Development Plan (CDP):

- The applicants have addressed the availability of water and sewer services to serve the proposed multi-family community, and have stated water and sewer utilities are readily available for the project. A more detailed analysis of the surrounding water distribution system and collection system downstream of the project will be needed to verify if upgrades are necessary.
- The applicants have submitted a TIA that is consistent with the requirements of UDO §4.12 (please find the TIA in the attachments). The site has the

potential to generate 2,526 new trips on a typical weekday with 158 new trips during the AM peak hour and 233 new trips in the PM peak hour. The TIA was based on the intensity of a 68,000 square foot medical office building.

- The applicant is requesting a modification to allow up to 292 parking spaces, which is in excess of the maximum number of parking spaces allowed within the Morganton Road Overlay District (MROD). The MROD requires that the number of parking spaces shall be a maximum (exclusive of on-street spaces) of one space per 250 square feet of gross floor area. This equates to a maximum of 272 parking spaces for a 68,000 square foot medical office building. The proposed development plan proposes parking for 292 vehicles, or one space per 233 square feet of gross floor area.

The UDO allows for flexibility in administration of the parking code due to the “particularities” of any given development including increases in the number of parking spaces. The applicant has submitted a request to increase parking. Please see this document in the attachments.

- The applicant has stated that signage will comply with UDO §4.6 of the UDO and a Unified Sign Plan will be submitted for the development. The applicant has not provided a request to deviate from UDO §4.6 nor have they provided a Unified Sign Plan and therefore will be required to meet the signage standards found in the sign code.
- The subject property is not presently annexed into the municipal limits of the Town of Southern Pines. Annexation of the subject property must occur prior to providing water and sanitary sewer services, per Town of Southern Pines Code of Ordinances §50.087.
- The applicants have stated there are no endangered species located on this property. The applicants have not submitted letters from NC Fish and Wildlife.
- Final Development Plans pursuant to UDO §2.18.7 will be required to demonstrate compliance with the Preliminary Development Plan.
- The subject property is part of the 116.7-acre Morganton Park North Conceptual Development Plan (CDP) that was approved by the Town of Southern Pines on May 15, 2018 (PD-01-18). The proposed medical office development is the eighth phase of the Morganton Park North CDP. Phase 1 included “The Legends at Morganton Park” apartment complex development, Phase 2 included “The Pavilion” mixed-use building at the intersection of West Morganton Road and Brucewood Road, Phase 3 included the new Southern Pines Elementary school, Phase 4 included the

Sandhills Pediatrics medical office building and Phase 5 was the Pinehurst Surgical office development, Phase 6 was the Pinehurst Medical office development, Phase 7 was the Legends Phase II multi-family development and Phase 8 is this application for the Pinehurst Surgical office development.

ii. General Comments:

- The public hearing for this request will be evidentiary in format and will follow the procedures set forth in UDO §2.14.

C. Outside Agency Comments:

- A request for comments was emailed to agencies on November 22, 2021. Agencies notified include Town of Southern Pines Streets, Utilities, Fire, Recreation and Parks, and Engineering departments, the Regional Land Use Advisory Commission (RLUAC) and the North Carolina Department of Transportation (NCDOT).
- On November 30, 2021 NCDOT provided comment: *no comment on this one, just let us know when the NE quadrant of that intersection develops. At that time, we will re-analyze the connections to state routes for possible improvements.*
- On December 7, 2021 the Town of Southern Pines Town Engineer provided comment: *I have no comments on the TIA submitted for the Site 3 North, Morganton Park TIA. The submitted documents address the requirements set forth in UDO 4.12. Transportation/traffic analyses.*

IV. ATTACHMENTS:

The following materials are provided as attachments to this staff memorandum:

1. Preliminary Development Plan Application
2. Deed
3. Agent Authorization Form
4. Preliminary Development Plan Narrative
5. Preliminary Development Plan Justification
6. Parking Request
7. Preliminary Development Existing Conditions Plan
8. Preliminary Development Site Plan
9. Kimley Horn TIA Report

Additional documents related to this application including (but not limited to) property deeds, Authorization of Agent forms, email correspondence, meeting minutes and adjacent property notification records are on file in the Town of Southern Pines Planning Office and available for public inspections during normal business hours.

V. TOWN COUNCIL ACTION:

To either approve or deny a Preliminary Development Plan application, the Town Council must make findings of fact and conclusions to the applicable standards. The Town Council shall first vote on whether the application is complete and whether the facts presented are relevant to the case. The Town Council shall then vote on whether the application complies with the criteria as set forth in Section 2.18.5(H) Criteria for a Preliminary Development Plan, Criteria 1-4. The Town Council may choose one of the following motions, or any alternative they wish:

I move to:

1. Adopt Attachment A of the staff report as Findings of Fact regarding the proposed Preliminary Development Plan PD-10-21.

-or-

2. Adopt Attachment A of the staff report as Findings of Fact regarding the proposed Preliminary Development Plan PD-10-21, with the following changes...

Next, the Town Council shall vote on whether to approve, deny or approve with conditions the proposed Preliminary Development Plan. The Town Council may choose one of the following motions, or any alternative they wish:

I move to:

1. Approve the Preliminary Development Plan for PD-10-21;
2. Deny the Preliminary Development Plan for PD-10-21;
3. Approve the Preliminary Development Plan for PD-10-21 with the following additional conditions...

ATTACHMENT “A”
Draft Town Council Findings of Fact
Preliminary Development Plan Application PD-10-21

Finding of Fact #1:

The Town Council finds that the application is complete and that the facts submitted are relevant to the case because the request for Preliminary Development Plan approval has met the specified submittal requirements as required in the Town of Southern Pines UDO Appendices, the applicants have submitted adequate evidence addressing criteria for a Preliminary Development Plan, and the evidence submitted was sworn testimony by qualified experts or provided through substantiated documentation.

Finding of Fact #2:

The Town Council finds that the application complies with UDO §2.18.5(H) Criteria for a Preliminary Development Plan, Criteria 1-4, in that:

1. **The application demonstrates that it will achieve the purposes of the PDD and this section;**

The Town Council finds that the Preliminary Development Plan (PDP) to develop a medical office building on the subject property is generally consistent with the purposes of the PD-planned development zoning district because the Morganton Park North Planned Development District is a established PDD that is compliant with the purposes outlined in UDO §3.5.14.

2. **The Preliminary Development Plan is consistent with the Conceptual Development Plan and conforms to all applicable provisions of this UDO;**

The Town Council finds that the PDP is consistent with the Conceptual Development Plan (CDP), PD-01-18, because the PDP maintains the mix and intensity of land uses as well as the standards evaluated and approved with the CDP. The applicant requested to deviate from the Morganton Road Overlay District parking standard, requesting to provide 20 more parking spaces over the maximum, allowing for 292 total parking spaces. The applicant is required to annex the subject property prior to providing water and sanitary sewer services.

3. **The proposed Development is located in an area of the Town that is appropriate; and**

The Town Council finds that the PDP is in an area of the Town that is appropriate because the proposed development establishes a compatible development that facilitates growth in a responsible manner. Morganton Park North is a Planned Development with an allowed mix of uses, with medical offices being an allowed land use.

4. **The proposed Development will not cause the need for inefficient extensions and expansions of public facilities, utilities and services.**

The Town Council finds that this development is served by existing public utilities because the subject property has access to public sewer and water as well as electric and gas utilities. The subject property will connect to the existing access and circulation network of existing streets and sidewalks.

Planned Development District Preliminary Development Plan

REQUIRED APPLICATION MATERIALS:

- _____ **Application fee** in the amount of **\$1,800.00 plus \$25.00 per lot.**
- _____ **Completed Application** for a Planned Development District - Preliminary Development Plan signed by the applicant.
- _____ **Appointment of Agent**, if applicable, signed by the property owner(s) and the agent.
- _____ **List of Adjacent Property Owners:** Please list all properties that are that are within two hundred (200) feet of the outermost boundaries of the subject property (**not counting streets, railroads or other transportation corridors**). Attach additional pages if needed. No fewer than ten (10) property owners shall be notified by mail.
- _____ **Written narrative** describing the application's consistency with the Conceptual Development Plan, the UDO, and any other applicable regulations.
- _____ **Neighborhood meeting records** if not provided in conjunction with an application for Conceptual Development Plan approval or if additional meetings have been held.
- _____ **Additional documentation:** Additional text and/or maps to demonstrate consistency with **UDO §2.18.5(H) Criteria (1) through (4).**
- _____ **PDD Preliminary Development Plan:** One (1) full-size copy of a preliminary plat or scaled drawings of the entire tract to be subdivided. Please refer to the **UDO Appendices** for plan requirements.
- _____ **Drainage concept plan** if applicable.
- _____ **Traffic Impact Analysis** if applicable.
- _____ **Electronic copy (PDF) of all application materials** submitted to plan@southernpines.net.

PLEASE SUBMIT ONLY ONE (1) COMPLETE SET OF ALL MATERIALS.

REVIEW AND APPROVAL:

1. **Staff review:** Planning staff will review the application and notify the applicant if additional information or materials are needed.
2. **Public hearing:** The applicant is expected to attend a public hearing on the application before the Town Council at its regular monthly meeting. (Please refer to the **Application Processing Timeline** to determine the hearing date.) The Town Council will consider evidence and testimony presented and may approve, conditionally approve or deny the request.
3. **Approval:** Please refer to UDO **§2.18.5(I) Effect of Approval.**



Planned Development District Preliminary Development Plan Application

Fee: \$ _____ Date Received: _____ Case No.: PD- _____ - _____

Project Information:

Project Name: PINEHURST SURGICAL - 3 NORTH

Physical Address: PATRIOT BLVD AND PAVILION WAY

PIN: 857100590565 Parcel ID: 20190271

Site Size: 5.19 AC Zoning: PD

Applicant:

Name(s): Morganton Park Realty, LLC

Email: cgregg@pinehurstsurgical.com Phone: 910-215-2646

Mailing Address: 5 First Village Dr. Pinehurst, NC 28374

Authorized Agent, if different from Applicant:

Name(s): Koontz Jones Design c/o Bob Koontz

Email: bkoontz@koontzjones.com Phone: 910-215-2646

Mailing Address: 150 S Page Street, Southern Pines, NC 28387

Legal Property Owner(s), if different from Applicant:

Name(s): _____

Email: _____ Phone: _____

Mailing Address: _____

TO THE TOWN OF SOUTHERN PINES PLANNING BOARD AND TOWN COUNCIL:

I, the undersigned, do hereby make application to and petition the Planning Board and Town Council for approval of a Planned Development District – Preliminary Development Plan as required by the Town of Southern Pines Zoning Ordinance. The following information is submitted in support of this application:

The property which is the subject of this application is located on the west side of Patriot Blvd (St./Ave.), between Pavilion Way (St./Ave.) and S Carlisle St (St./Ave.). The property has a frontage of ±490 feet and a depth of ±350 feet.

The request is based upon **Section 2.18.5** of the **Town of Southern Pines Unified Development Ordinance**. The proposed use of the property is as follows:

Medical Offices

Date:

11/8/21


Applicant

**PLANNING DEPARTMENT
TOWN OF SOUTHERN PINES**

plan@southernpines.net (910) 692-4003 www.southernpines.net

8-27-21

APPOINTMENT OF AGENT

The undersigned owner(s), Morganton Park Realty, LLC, hereby appoint(s) Koontz Jones Design, PLLC as the exclusive agent for the purpose of making an application to the Town of Southern Pines for the approval of the Planned Development District – Preliminary Development Plan described in the attached application. The owner(s) hereby agree(s) that this agent has the authority to act for and on behalf of the owner(s) as follows:

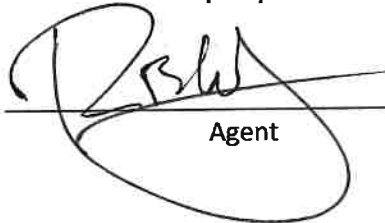
1. to submit an application and required supplemental materials;
2. to appear at public meetings and give representation and comments on behalf of the owner(s);
3. to accept conditions or recommendations made by the Town of Southern Pines Town Council for the approval of a Planned Development District – Preliminary Development Plan; and
4. to act on behalf of the property owner(s) without limitations with regard to any and all things directly or indirectly connected with or arising out of any application for a Planned Development District -Preliminary Development Plan under the Southern Pines Unified Development Ordinance.

This Appointment of Agent shall remain in effect until final resolution of the attached application.

Signed this 8 day of Nov., 2021.



Property Owner

Property Owner


Agent

8-27-21

For Registration Register of Deeds

Judy D. Martin

Moore County, NC

Electronically Recorded

October 17, 2019 9:56:36 AM

Book: 5210 Page: 279 - 287 #Pages: 9

Fee: \$26.00 NC Rev Stamp: \$5,864.00

Instrument# 2019015479

SPECIAL WARRANTY DEED**THIS INSTRUMENT PREPARED BY:**

Richard Lee Yelverton III Esq.
 Van Camp, Meacham & Newman, PLLC
 2 Regional Circle (28374)
 P.O. Box 1389
 Pinehurst, North Carolina 28370

TO BE RECORDED IN THE
 DEED RECORDS OF
 MOORE COUNTY, NC

Excise Tax: \$ 5,864.00THIS DEED made this 16 day of October, 2019, by and between:

<u>GRANTOR</u>	<u>GRANTEE</u>
ROBERT W. VAN CAMP AND JULIE M. VAN CAMP, TRUSTEES OF THE ROBERT W. AND JULIE M. VAN CAMP LIVING TRUST UNDER AGREEMENT DATED DECEMBER 22,1998 (as to 70%), AND THOMAS M. VAN CAMP, TRUSTEE OF THE VAN CAMP IRREVOCABLE TRUST UNDER AGREEMENT DATED JANUARY 7, 2016 (as to 30%)	MORGANTON PARK REALTY, LLC, a North Carolina Limited Liability Company. Tax Address: 5 First Village Drive Pinehurst, NC 28374

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, the Grantor, for valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land (referred to in the singular, whether one or more) situated in the Town of Southern Pines, Mineral Springs Township, Moore County, North Carolina, and more particularly described as follows:

Submitted electronically by "Robbins May & Rich LLP"
 in compliance with North Carolina statutes governing recordable documents
 and the terms of the submitter agreement with the Moore County Register of Deeds.

Being the property described on Exhibit A attached hereto and incorporated herein by reference.

This property herein described does not include the primary residence of the Grantor.

The attorney preparing this instrument has not searched the title to the real property hereby conveyed and makes no opinion relative to the status of the title to the real property hereby conveyed.

This conveyance is made subject to (i) the lien of the County of Moore for taxes and other assessments for the current year; and (ii) utility easements, other easements and restrictive covenants of record that are enforceable against the real property hereby conveyed.

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor has done nothing to impair such title as Grantor received, and Grantor will warrant and defend the title against the lawful claims of all persons claiming by, under or through Grantor, other than the exceptions hereinabove set forth.

IN WITNESS WHEREOF, the said Grantor has hereunto set his hand and seal the day and year first above written.

**REMAINDER OF PAGE LEFT BLAND, SIGNATURES
AND NOTARY BLOCK ARE ON THE FOLLOWING PAGES**

Robert W. Van Camp, TRUSTEE

(SEAL)

Robert W. Van Camp, Trustee of the Robert W. and Julie M. Van Camp Living Trust Agreement dated December 22, 1998

Julie M. Van Camp, TRUSTEE

(SEAL)

Julie M. Van Camp, Trustee of the Robert W. and Julie M. Van Camp Living Trust Agreement dated December 22, 1998

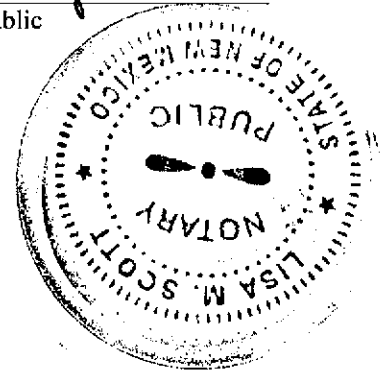
STATE OF New Mexico
COUNTY OF Los Alamos

I, Lisa M. Scott, a Notary Public of the County and State aforesaid, certify that Robert W. Van Camp, Trustee of the Robert W. and Julie M. Van Camp Living Trust Agreement dated December 22, 1998 and Julie M. Van Camp, Trustee of the Robert W. and Julie M. Van Camp Living Trust Agreement dated December 22, 1998, either being personally known to me or proven by satisfactory evidence (said evidence being Martha DL), personally appeared before me this day and acknowledged that they are the Trustees of the Robert W. and Julie M. Van Camp Living Trust Agreement dated December 22, 1998, and that they, as Trustees being authorized to do so, voluntarily executed the foregoing on behalf of the Trust for the purposes stated therein.

WITNESS my hand and official stamp or seal, this 12 day of October, 2019.

[Signature]
Notary Public

My Commission Expires: 12/7/2020 [NOTARY SEAL]



Thomas M. Van Camp trustee (SEAL)
 Thomas M. Van Camp, Trustee of the Van Camp Irrevocable Trust Under Agreement Dated January 7, 2016,

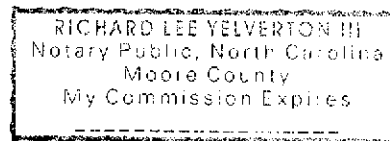
STATE OF NC
 COUNTY OF MOORE

I, RICHARD LEE VELVERTON III, a Notary Public of the County and State aforesaid, certify that Thomas M. Van Camp, Trustee of the Van Camp Irrevocable Trust Under Agreement Dated January 7, 2016, either being personally known to me or ~~proven by satisfactory evidence (said evidence being~~ filed), personally appeared before me this day and acknowledged that he is the Trustee of the Van Camp Irrevocable Trust Under Agreement Dated January 7, 2016, and that he, as Trustee being authorized to do so, voluntarily executed the foregoing on behalf of the Trust for the purposes stated therein.

WITNESS my hand and official stamp or seal, this 16 day of October, 2019.

[Signature]
 Notary Public

My Commission Expires: 11-17-2020 [NOTARY SEAL]



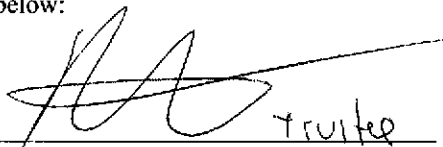
CERTIFICATION OF TRUST of
The Van Camp Irrevocable Trust Under Agreement Dated January 7, 2016

THIS CERTIFICATION OF TRUST is made pursuant to NCGS §36C-10-1013, instead of furnishing a copy of the above-described trust instrument and is intended to be relied upon by the parties dealing with the Trustee:

1. The Trust. the Van Camp Irrevocable Trust Under Agreement Dated January 7, 2016
2. Parties:
Settlers: Robert W. Van Camp and Julie M. Van Camp
Trustees: Thomas M. Van Camp
3. Trustee: The currently acting Trustee is Thomas M. Van Camp
4. Powers: That the Trustees have the continuing, absolute discretionary power to deal with any property, real or personal, held in any trust. Such power may be exercised independently without prior or subsequent approval of any judicial authority, and no person dealing with the Trustees shall be required to inquire into the propriety of any of its actions. That the Trust provisions not attached are of a personal nature and set forth the distribution of trust property and other administrative duties and functions of the Trustees. They do not modify the powers of the Trustees.
5. Revocability: The Trust is irrevocable.
6. Trustees. If the Trust has Trustees, all Trustees are required in order to exercise powers of the Trustee.
7. TIN. The taxpayer identification number of the Trust is: 82-6364679
8. Title to Trust Property. The title to the Trust property is held in the name of the Thomas M. Van Camp, Trustee of the Van Camp Irrevocable Trust Under Agreement Dated January 7, 2016 (30%).
9. Status. The above-described Trust has not been revoked, modified or amended in any manner that would cause the representations contained in this Certification of Trust to be incorrect.
10. Authority. The Trustees certify that they own and have full authority to convey the property described as: Being the property described in Exhibit A attached which is herein incorporated by reference.

IN WITNESS WHEREOF, the Trustee signs below:

Date of Certification: 16 OCT 19



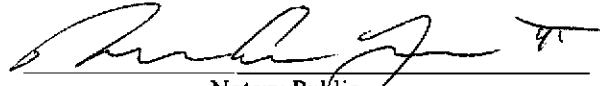
Thomas M. Van Camp, Trustee

STATE OF NC
COUNTY OF MCDOWE

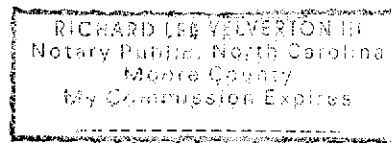
I, Richard Lee Velvick, a Notary Public of the County and State aforesaid, certify that **Thomas M. Van Camp, Trustee of the Van Camp Irrevocable Trust Under Agreement Dated January 7, 2016**, either being personally known to me or proven by satisfactory evidence (said evidence being Agar), personally appeared before me this day and acknowledged that he is the Trustee of the **Van Camp Irrevocable Trust Under Agreement Dated January 7, 2016**, and

that they, as Trustee being authorized to do so, voluntarily executed the foregoing on behalf of the Trust for the purposes stated therein.

WITNESS my hand and official stamp or seal, this 16 day of October, 2019.


Notary Public

My Commission Expires: 11-17-2020 [NOTARY SEAL]



CERTIFICATION OF TRUST of

The Robert W. and Julie M. Van Camp Living Trust under trust agreement dated December 22, 1998

THIS CERTIFICATION OF TRUST is made pursuant to NCGS §36C-10-1013, instead of furnishing a copy of the above-described trust instrument and is intended to be relied upon by the parties dealing with the Trustee:

1. The Trust. the Robert W. and Julie M. Van Camp Living Trust under trust agreement dated December 22, 1998
2. Parties:
 Grantors: Robert W. Van Camp and Julie M. Van Camp
 Trustees: Robert W. Van Camp and Julie M. Van Camp
3. Trustee: The currently acting Trustees are Robert W. Van Camp and Julie M. Van Camp
4. Powers: That the Trustees have the continuing, absolute discretionary power to deal with any property, real or personal, held in any trust. Such power may be exercised independently without prior or subsequent approval of any judicial authority, and no person dealing with the Trustees shall be required to inquire into the propriety of any of its actions. That the Trust provisions not attached are of a personal nature and set forth the distribution of trust property and other administrative duties and functions of the Trustees. They do not modify the powers of the Trustees.
5. Revocability: The Trust is revocable.
6. Trustees. If the Trust has Trustees, all Trustees are required in order to exercise powers of the Trustee.
7. TIN. The taxpayer identification number of the Trust is ***-**5186
8. Title to Trust Property. The title to the Trust property is held in the name of the Robert W. Van Camp and Julie M. Van Camp as Trustees of the Robert W. and Julie M. Van Camp Living Trust under trust agreement dated December 22, 1998 (70%).
9. Status. The above-described Trust has not been revoked, modified or amended in any manner that would cause the representations contained in this Certification of Trust to be incorrect.
10. Authority. The Trustees certify that they own and have full authority to convey the property described as: Being the property described in Exhibit A attached which is herein incorporated by reference.

IN WITNESS WHEREOF, the Trustees sign below:

Date of Certification: 1/14/19

Robert W. Van Camp, TRUSTEE
 Robert W. Van Camp, Trustee

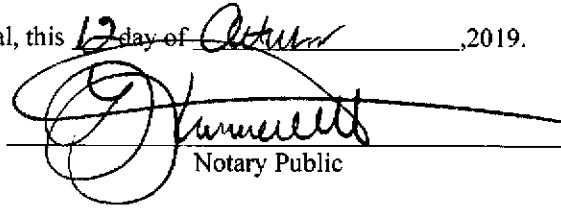
Julie M. Van Camp, TRUSTEE
 Julie M. Van Camp, Trustee

STATE OF New Mexico
 COUNTY OF Los Alamos

I, Liam Smith, a Notary Public of the County and State aforesaid, certify that **Robert W. Van Camp, Trustee of the Robert W. and Julie M. Van Camp Living Trust Agreement dated December 22, 1998 and Julie M. Van Camp, Trustee of the Robert W. and Julie M. Van Camp Living Trust Agreement dated December 22, 1998**, either being personally known to me or proven by satisfactory evidence (said evidence being Witness DL), personally

appeared before me this day and acknowledged that they are the Trustees of the **Robert W. and Julie M. Van Camp Living Trust Agreement dated December 22, 1998**, and that they, as Trustees being authorized to do so, voluntarily executed the foregoing on behalf of the Trust for the purposes stated therein.

WITNESS my hand and official stamp or seal, this 12 day of October, 2019.


Notary Public

My Commission Expires: 12/2/2020 [NOTARY SEAL]

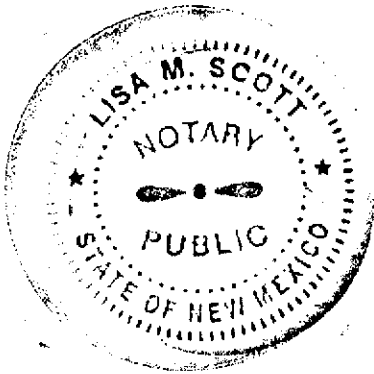


EXHIBIT A

Being all of Tract 3 as described in a map recorded in Plat Cabinet 18 at Slide 239 Moore County Registry reference to which is made for a more complete description. Being a portion of that property described in Deed Book 4593 at Page 407, Moore County Registry. For prior reference see Book 1589, Page 80, Moore County Registry.

**PINEHURST SURGICAL CLINIC - MORGANTON PARK SITE 3N
PRELIMINARY DEVELOPMENT PLAN (PDP) NARRATIVE**

The development of the property described as Pinehurst Surgical Clinic - Morganton Park Site 3N in the submitted exhibits will be completed as a medical office building with square footage totaling approximately +/- 60,000 sf. Overall, the project will cover a total of approximately 5.19 acres. All information, descriptions and calculations included in this application are related to the development of this parcel of property.

The project does not fall within any high-quality watershed designation and there is no floodplain on the property. No woodpecker habitat, wetlands or endangered species are located on the property. The project will fully comply with all general notes and standards included in the approved Morganton Park North Conceptual Development Plan (CDP).

The overall character of the development will provide a pleasing aesthetic and blend with the surrounding mixed-use area. The building will be located between Carlisle Street, Pavilion Way and Patriot Boulevard in the Morganton Park North development. The building will face toward the intersection of the recently constructed Pavilion Way and Patriot Boulevard. Access to the property will be provided from two (2) full motion locations on Pavilion and one right-in/right-out on Patriot Boulevard as illustrated in the application plans.

Design standards for individual elements of the development are described below.

- **Pedestrian Connectivity**
 - o Pedestrian access will be provided throughout the site. The building and parking areas will provide connections to existing sidewalk infrastructure surrounding the site. Parking areas throughout the site will connect to sidewalks leading to the building entrances and provide accessible access as required by state and federal standards. Internal walks will connect to the sidewalk located along Pavilion Way
- **Parking Areas**
 - o Parking areas will be designed and landscaped per Town of Southern Pines Unified Development Ordinance standards in Section 4.3.
 - o A modification request has been made to allow for additional parking spaces, above the maximum number of spaces required by the Morganton Road Overlay District (MROD). Due to the mixed-use nature and shared parking within the Morganton Park area, the MROD requires a maximum of 1 parking spaces per 250 sf. Under the MROD, the proposed building would require only 240 parking spaces. The increase request, based on the Medical and Dental office parking standards under Section 4.5.3(D) of the UDO, would allow for up to 1 space per 150 square feet, or 400 spaces for the proposed 60,000 sf building. The current plan presented defines 290 parking spaces for a ratio of 1 space per 207 sf.
 - o Parking will be located on three sides of the building. Parking will also be provided in an upper parking lot and a lower parking lot, which will break up the size of the parking area on two levels. Each level will have its own access and

serve different areas of the building. Parking views will be screened from adjoining roadways as required by the Town of Southern Pines UDO and approved CDP documents.

- **Streets and Access**

- Access to the property will be provided from two (2) full motion locations on Pavilion and one right-in/right-out on Patriot Boulevard as illustrated in the application plans. Pavilion Way, Patriot Boulevard and Carlisle Street are all existing streets and will allow access the property and connect to Morganton Road.
- Plans will be coordinated with the Town of Southern Pines and NCDOT.
- A Traffic Impact Analysis (TIA) has been provided with this application.

- **Landscaping**

- Landscaping will be provided as required by the Town of Southern Pines UDO in Section 4.3. This will include tree islands, parking lot landscaping and streetscape plantings.

- **Lighting**

- All lighting on the property will follow Section 5.5.6 of the CDP and Section 4.8 of the UDO. Lighting levels along streets and in parking areas will be provided to meet the UDO standards for safety and match the existing community. Proposed lighting fixtures will match previous phases of development. All light will be projected downward to limit any light spilling onto adjacent properties.

- **Open Space**

- Required open space for Morganton Park North is 20%. Open space is not required for each individual parcel within Morganton Park North. No open space will be provided on this site.
- An updated 'running' tabulation for the overall Morganton Park North property has been provided on Sheet L.1.1 of the submission set.

- **Stormwater**

- Stormwater management devices will be provided as necessary and required to control stormwater runoff for the medical office building site. All stormwater will be piped to the regional Morganton Park North stormwater pond located to the northwest of the parcel and across Brucewood Road. This stormwater pond was intended to be a regional facility for the Morganton Park North parcel and constructed to accommodate the runoff from this site and several others within the development.
- This project is not located in a high-quality watershed and is required to maintain quantity only.
- Plans and calculations will be provided during the detailed site engineering process.

- **Utility Service**

- Adequate water and sewer service can be provided by the Town of Southern Pines to service this development. Utilities are currently located in close proximity to this property. All utilities on the site will be located underground.

- **Buffers/Setbacks**

- The development is located outside of the Highway Corridor Overlay District (HCOD).
- Based on the location of the building and PD zoning classification within

Morganton Park North no setbacks are required.

- Buildings and parking associated with the medical office building comply with the buffer and setback regulations of the UDO and Morganton Park North CDP.
- Landscape buffer planting areas of 10' have been provided along all parking boundary areas and meet the Town's UDO standards in Section 4.3.
- **Architectural Character**
 - Due to the difficult site conditions related to topography, the building footprint being preliminary and the PDP application prior to any detailed architectural design or grading plans, building footprints may shift and adjust on the property. So long as the development program, building square footage, and parking requirements defined in this document and parking modification request are met, the applicant may adjust the site plan as shown on the plan without being required to amend this PDP document.
 - Building height will meet the standards of Section 4.2.1 for Medical Facilities.
 - At such time as engineering drawings and/or Final Development Plans are submitted for the project or any construction begins, architectural elevations will be submitted as required for all commercial and office buildings for review by the Town of Southern Pines Architectural Review Board.
- **Signage**
 - Building mounted, subdivision, landmark monuments and project signage may be placed as indicated on the plans at each parking lot entrance. The building will have multiple users and follow the standards of Section 4.6 of the UDO for signage.
 - A Unified Sign Plan will be submitted as permitted in the UDO for this development.
- **Annexation**
 - Any areas within the property that are not currently part of the Town of Southern Pines, will be offered for annexation prior to the approval of the first set of building permits, unless otherwise specified through additional agreements that may supersede this requirement.

The descriptions and conditions described above will apply to the development as indicated in the Preliminary Development Plan document. The proposed plan utilizes the CDP's development standards and implements a new phase of development within the Morganton Park North property. This phase of development meets the standards of the Morganton Park North CDP as approved on May 15, 2018. Should the CDP be amended, any roadway standards indicated on the attached plans may be amended to accommodate the revised standard, without requiring amendment to these PDP documents.

In summary, the proposed PD – PDP is consistent with the Town's Comprehensive Long-Range Plan (CLRP) and promotes its objectives. The CLRP designates the property as Mixed-Use. This PDP contains a medical office building within the overall mixed-use development, similar in scale and size of the existing Morganton Park North. The approved CDP describes a master planned mixed-use development. The proposed PDP is the commencement of a new phase of development for Morganton Park North.

EXHIBIT A

Pinehurst Surgical Clinic - Morganton Park Site 3N Preliminary Development Plan Justification

Below are listed the four (4) criteria required to approve a Preliminary Development Plan (PDP) application as described in Section 2.18.5(H) of the Town of Southern Pines Unified Development Ordinance (UDO). Following the individual criteria is an explanation, indicated in red, describing how the project demonstrates compliance with each of these criteria.

A Preliminary Development Plan is permitted if the Applicant demonstrates that:

(1) The application demonstrates that it will achieve the purposes of the PDD and this section;

The PDP conforms to all standards set forth in the Conceptual Development Plan (CDP) and the standards set forth in the UDO. The plans included with the approved CDP demonstrates the overall compliance with the UDO and this PDP follows the standards of the CDP. The PD District, Comprehensive Long-Range Plan (CLRP) and the CDP all encourage a mixed-use development that reflects the standards of the existing area that surrounds the phase of development described in the PDP. The PDP submitted meets these goals.

(2) The Preliminary Development Plan is consistent with the Conceptual Development Plan and conforms to all applicable provisions of this UDO;

The PDP is consistent with and meets all standards and requirements provided in the CDP plans, and conforms to the standards of the UDO. The medical office use is consistent with the proposed development program and allowable uses in the CDP. The development of a +/- 68,000 sf office building is consistent with the Conceptual Land Use Plan shown on Sheet L 1.1 of the CDP master plan approved on May 15, 2018.

(3) The proposed Development is located in an area of the Town that is appropriate; and

The PDP is consistent with the CDP, surrounding community and the Morganton Park North mixed-use development which includes a mixed-use building (office, medical office, retail and restaurant), multi-family apartment community and an elementary school. The CLRP, which takes in to account surrounding land uses, designates this property as mixed-use. The continued development of the medical office use included in the PDP is consistent with the surrounding land uses and appropriate for this area. With the development standards set forth in the UDO and CDP, the PDP will be compatible with the surrounding neighborhoods and land uses.

(4) The proposed Development will not cause the need for inefficient extensions and expansions of public facilities, utilities and services

Water and sewer utilities are readily available for the project and have been developed in previous phases of Morganton Park North development. Water and sewer utilities are located in Pavilion Way, Carlisle Street and Patriot Boulevard and have been designed to accommodate this property. No extension of public utilities will be necessary to connect to this property. Stormwater management facilities were designed in a regional facility on the western portion of the Morganton Park North property and constructed to accommodate this property. Previous development of the property contemplated this site in future development plans and permits efficient connection for Pinehurst Surgical Clinic Site 3N - Morganton Park office building.

December 3, 2021

BJ Grieve
Planning Director
Town of Southern Pines
180 SW Broad Street
Southern Pines, NC 28387

RE: Pinehurst Surgical Clinic - Morganton Park Site 3N
Parking Increase Request

Mr. Grieve,

The applicant, Pinehurst Surgical Clinic, would request a waiver from the Morganton Park Overlay District parking standards in Section 3.6.6(F)(4) of the Unified Development Ordinance (UDO). This section limits parking within Morganton Park to 1 space per 250 square feet of gross floor area, or 240 spaces for the proposed medical office building. Medical and Dental office parking standards under Section 4.5.3(D) of the UDO would require the building to park at a minimum of 1 space per 150 square feet of gross floor area, or 453 spaces.

Proposed parking provided on the site plan included in the Preliminary Development Plan (PDP) for Site 3N totals 292 parking spaces, or 1 space per 233 square feet. This total is based upon the assumption that the full build-out of the building will maximize the proposed +/- 68,000 sf. Should the +/- 68,000 sf be reduced during the site planning process or additional spaces become available during the detailed engineering design process, the applicant would request the ability to increase the parking within the project area to a maximum of the UDO's recommended specification for medical and dental offices of 1 space per 150 sf.

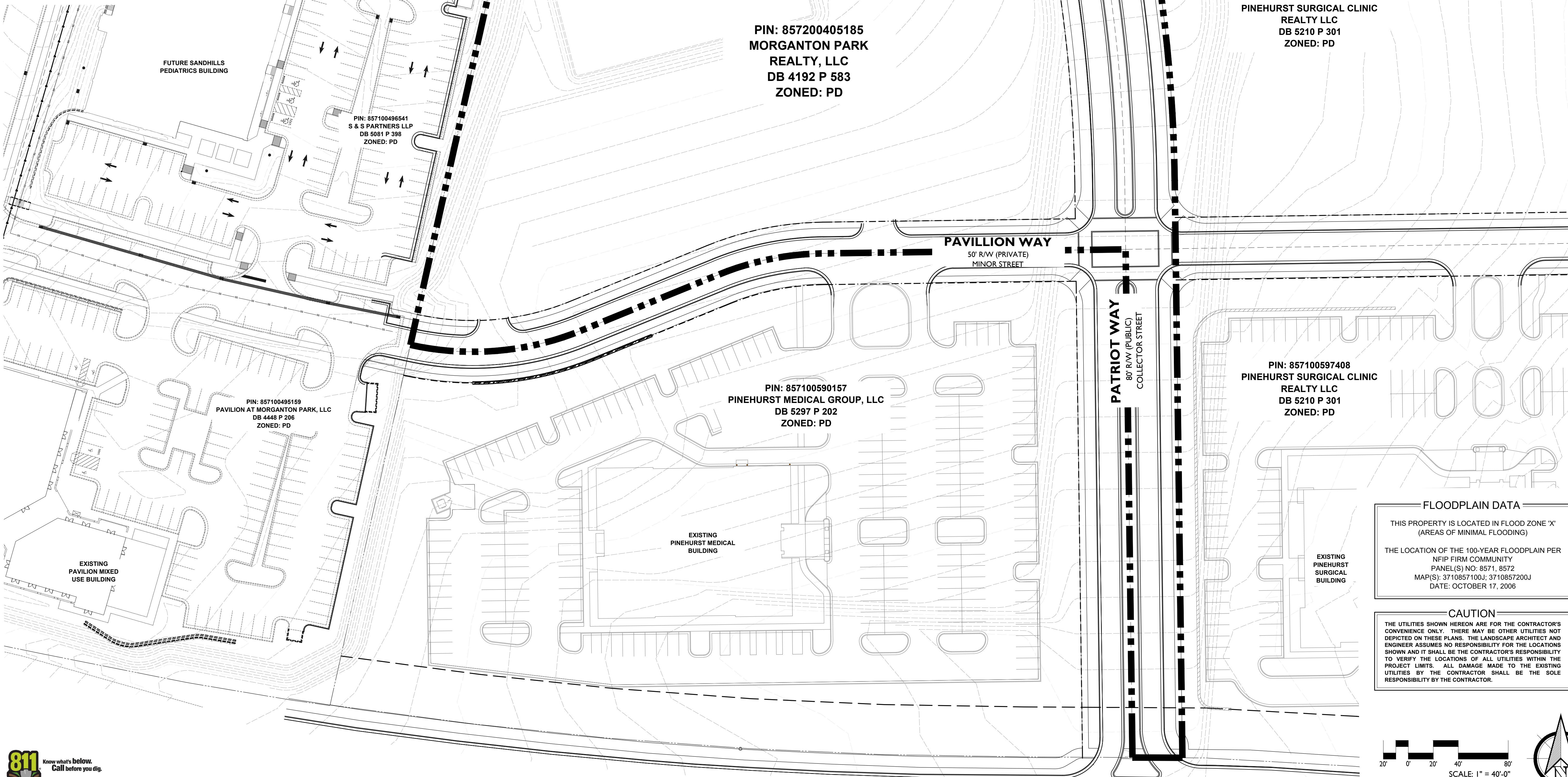
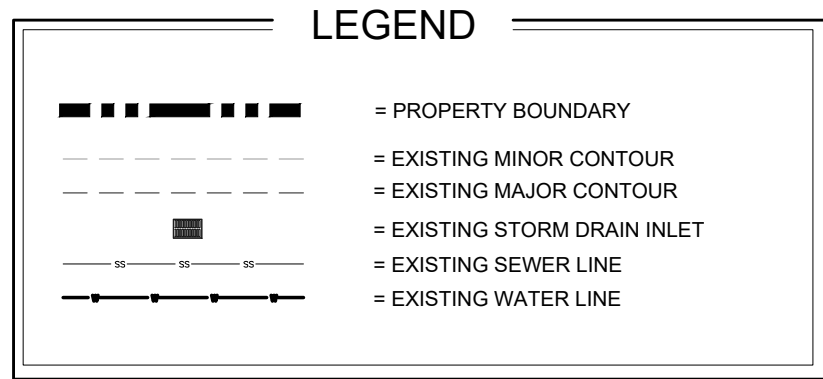
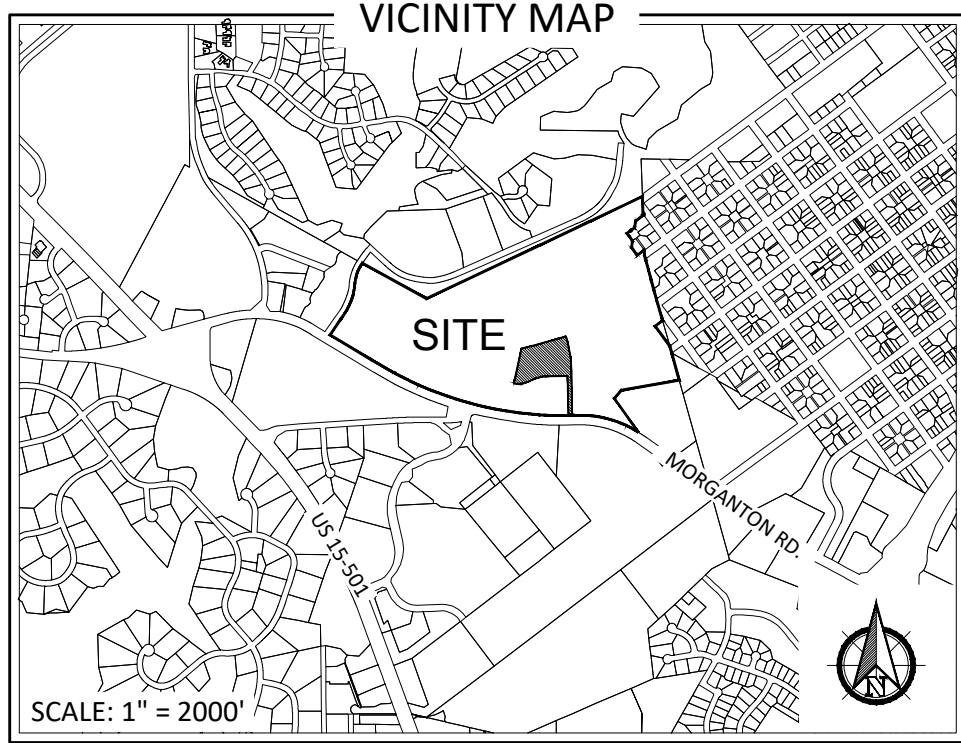
Based on the experience of other medical office facilities in the area, there is a need for parking above 1 space per 250 square feet. It has been found that ratios between 1 space per 150 sf, as required by the town's UDO, and 177 sf of gross floor area are appropriate for medical office buildings with multiple practitioners. There is a demonstrated need to increase the parking for the Pinehurst Surgical Clinic - Morganton Park Site 3N office building above the 1 space per 250 square feet maximum required by the Morganton Park standard in the UDO. Practices proposed for this facility will not require the full 1 space per 150 square feet ratio, however, it is very important that medical offices provide ample and convenient parking for their patients. Based on the scale and location of the proposed facility, during regular business hours, the medical building requires dedicated parking to meet the full needs of patients, doctors, and employees.

We appreciate consideration of this waiver from the Morganton Park standards and would request that the Pinehurst Surgical Clinic - Morganton Park office building be permitted to construct parking as requested in this document. Please let me know if any additional information is necessary.

Best regards,



Robert E. Koontz, PLA
Principal



ZONING INFORMATION

ZONING CLASSIFICATION:
PD - PLANNED DEVELOPMENT W/ APPROVED
CONCEPTUAL DEVELOPMENT PLAN

REQUIRED SETBACKS:
FRONT: NO MINIMUM
SIDE-STREET: NO MINIMUM
SIDE INTERIOR: NO MINIMUM
REAR: NO MINIMUM

MAX. BUILDING HEIGHT: 35'

PROPERTY INFORMATION

PROPERTY OWNER:
MORGANTON PARK REALTY LLC
5 FIRST VILLAGE DRIVE
PINEHURST, NC 28374

APPLICANT:
MORGANTON PARK REALTY LLC
5 FIRST VILLAGE DRIVE
PINEHURST, NC 28374

TOTAL ACREAGE: ±5.19 AC (±1.45 AC IN R/W)

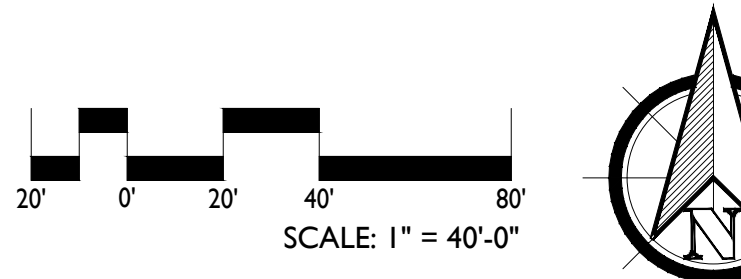
FLOODPLAIN DATA

THIS PROPERTY IS LOCATED IN FLOOD ZONE 'X'
(AREAS OF MINIMAL FLOODING)

THE LOCATION OF THE 100-YEAR FLOODPLAIN PER
NFIP FIRM COMMUNITY
PANEL(S) NO: 8571, 8572
MAP(S): 3710857100J; 3710857200J
DATE: OCTOBER 17, 2006

CAUTION

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PRELIMINARY PLANS - NOT RELEASED FOR CONSTRUCTION (FOR REVIEW ONLY)

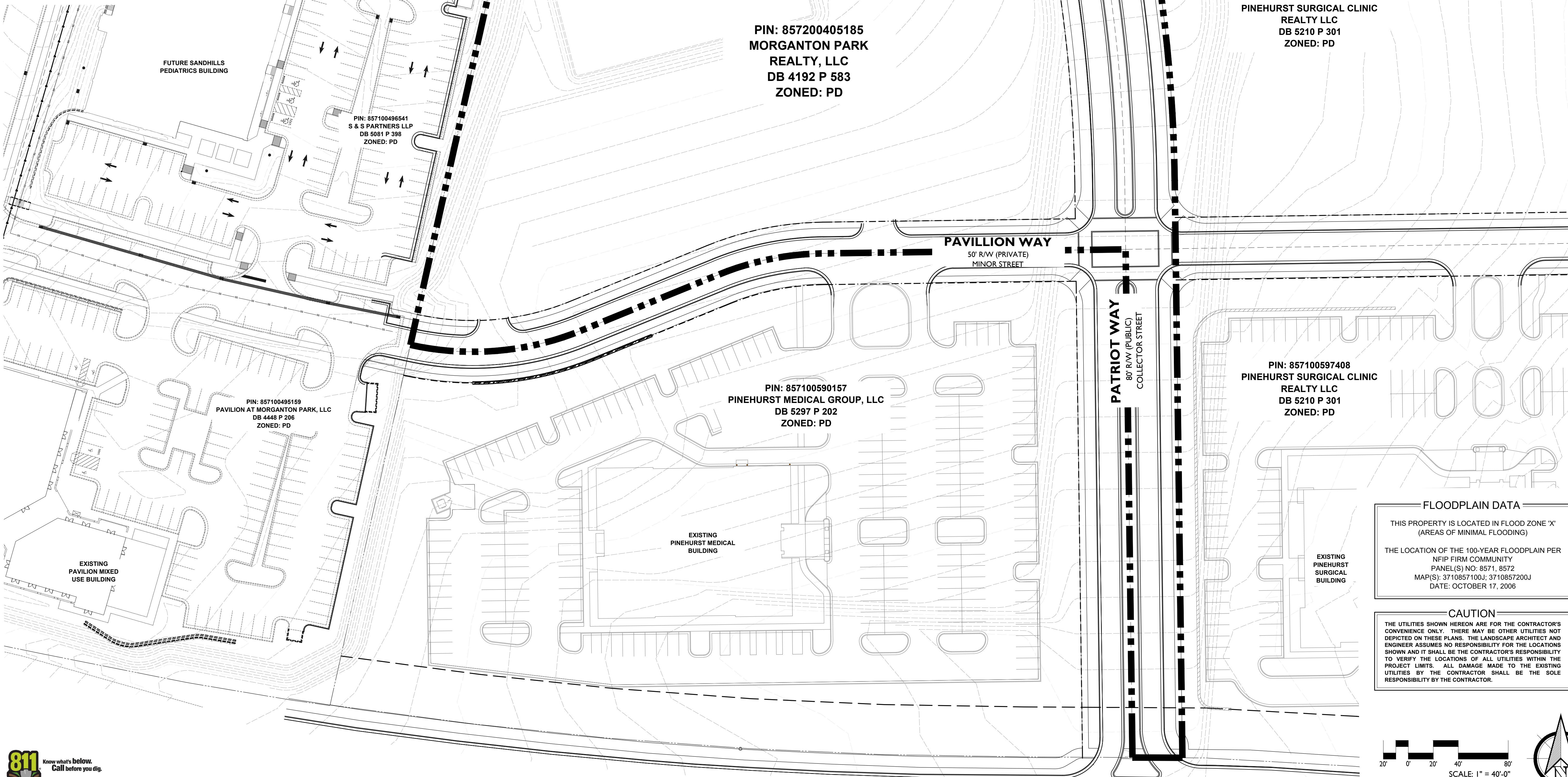
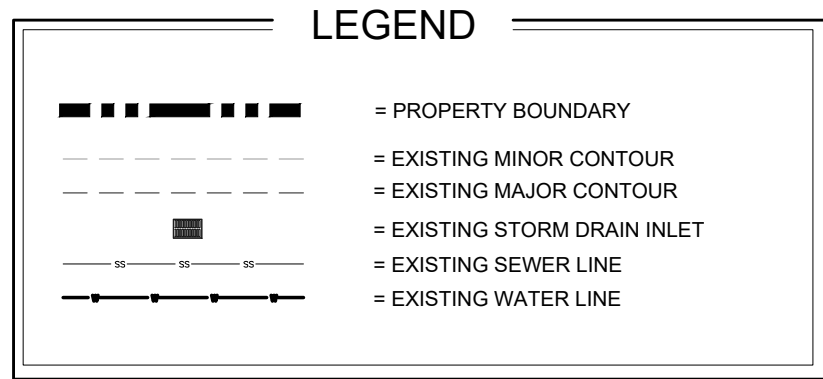
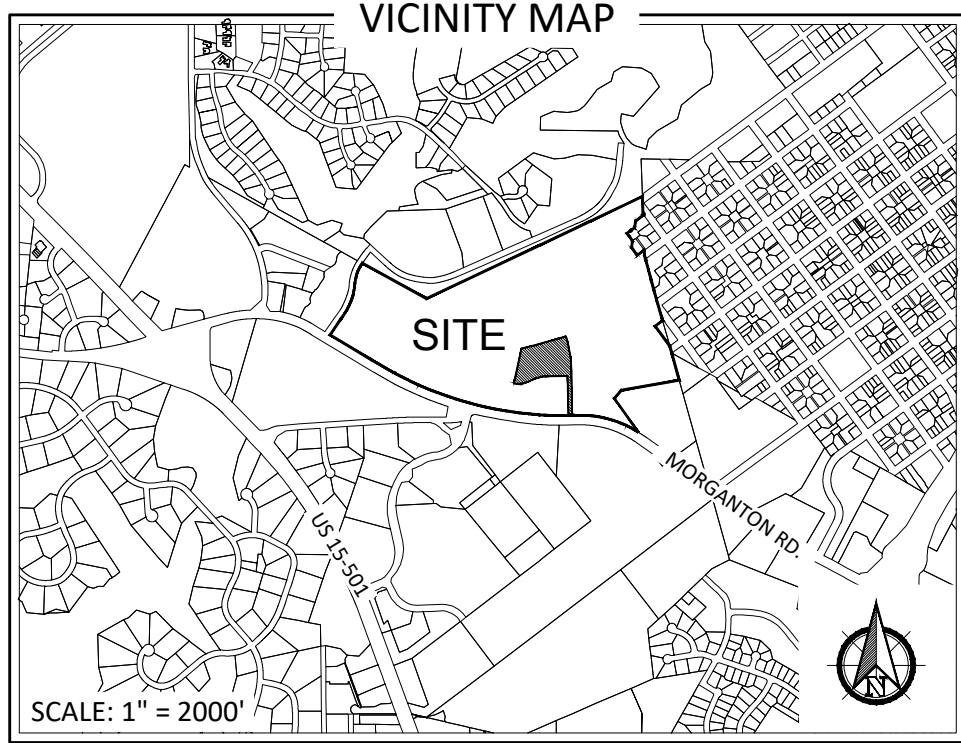
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REVISIONS:

PINEHURST SURGICAL - 3 NORTH
PRELIMINARY DEVELOPMENT PLAN
SOUTHERN PINES, NORTH CAROLINA
EXISTING CONDITIONS

DATE: 11.08.2021
DESIGNED BY: REK
DRAWN BY: PJS
CHECKED BY: REK
SCALE: 1" = 40'
PROJECT #: KID21104
SHEET NUMBER:
L-1.0



ZONING INFORMATION

ZONING CLASSIFICATION:
PD - PLANNED DEVELOPMENT W/ APPROVED CONCEPTUAL DEVELOPMENT PLAN

REQUIRED SETBACKS:
FRONT: NO MINIMUM
SIDE-STREET: NO MINIMUM
SIDE INTERIOR: NO MINIMUM
REAR: NO MINIMUM

MAX. BUILDING HEIGHT: 35'

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5 FIRST VILLAGE DRIVE
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APPLICANT:
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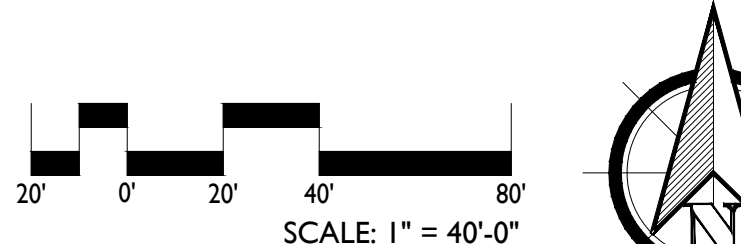
FLOODPLAIN DATA

THIS PROPERTY IS LOCATED IN FLOOD ZONE 'X' (AREAS OF MINIMAL FLOODING)

THE LOCATION OF THE 100-YEAR FLOODPLAIN PER NFIP FIRM COMMUNITY PANEL(S) NO: 8571, 8572 MAP(S): 3710857100J; 3710857200J DATE: OCTOBER 17, 2006

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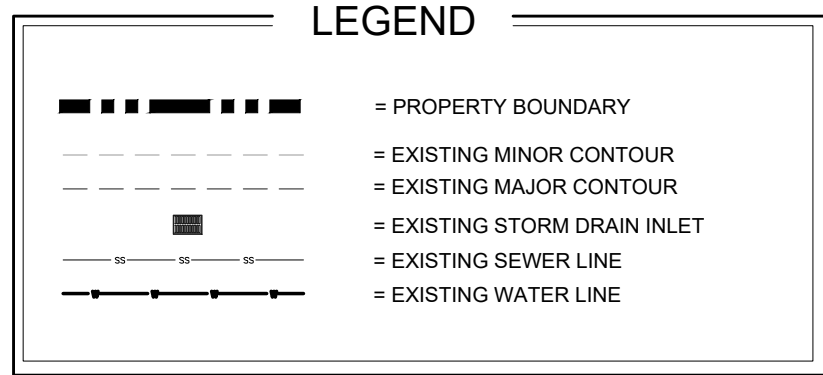
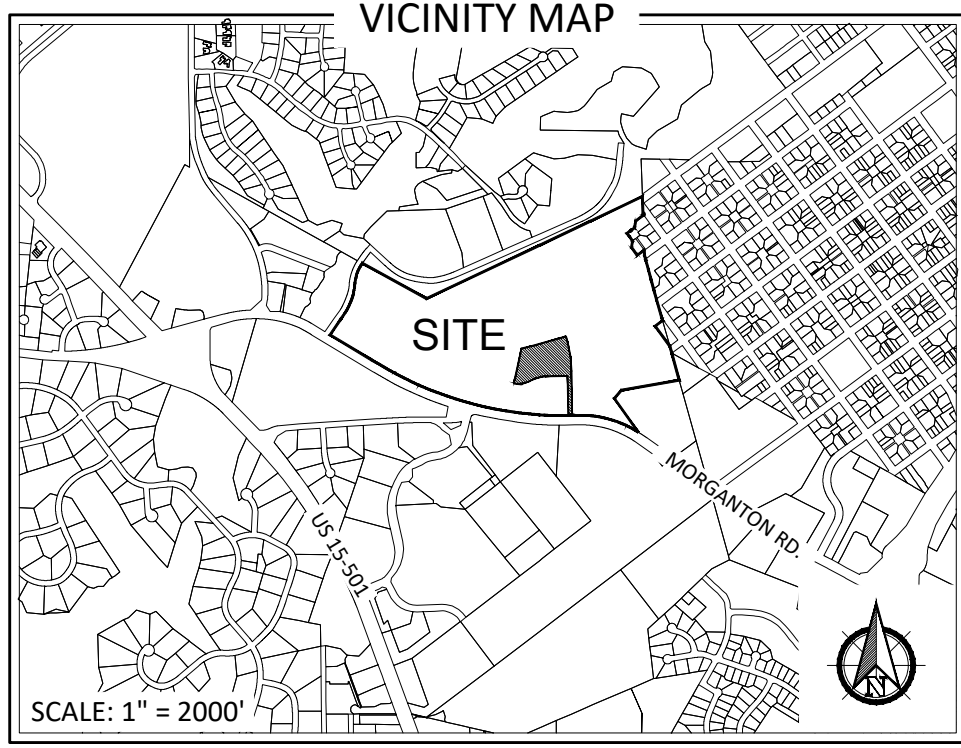
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PINEHURST SURGICAL - 3 NORTH
PRELIMINARY DEVELOPMENT PLAN
SOUTHERN PINES, NORTH CAROLINA
EXISTING CONDITIONS

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SCALE: 1" = 40'
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SHEET NUMBER:
L-1.0



DRAINAGE NOTES:

1. STORMWATER MANAGEMENT DEVICES WILL FOLLOW THE TOWN OF SOUTHERN PINES STANDARDS AND BE APPROVED BY THE TOWN ENGINEER.
2. DRAINAGE WILL BE RETAINED BY EXISTING REGIONAL STORMWATER MANAGEMENT POND WITHIN THE MORGANTON PARK NORTH DEVELOPMENT. DETAILED STORMWATER MANAGEMENT PLANS AND CALCULATIONS WILL BE PROVIDED DURING PERMITTING OF THE DEVELOPMENT



OPEN SPACE SUMMARY - MORGANTON PARK NORTH

SITE AREA 116.7 acres

CATEGORY	REQUIRED	PROVIDED	TOTAL REMAINING TO PROVIDE
Overall Open Space	23.34 acres (20%)	10.73 acres	12.61 acres
Usable Open Space	11.67 acres (10%)	8.52 acres	3.15 acres

LOCATION	OVERALL	USABLE
Pavilion	0.08 acres	0.08 acres
Legends Apartments	3.93 acres	3.93 acres
Elementary School	6.36 acres	4.48 acres
Sandhills Pediatrics	0.36 acres	0.03 acres
Pinehurst Medical	0 acres	0 acres
Pinehurst Surgical	0 acres	0 acres
Pinehurst Surgical - 3 North	0 acres	0 acres
TOTAL	10.73 acres	8.52 acres



ZONING INFORMATION

ZONING CLASSIFICATION:
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REQUIRED SETBACKS:
FRONT: NO MINIMUM
SIDE-STREET: NO MINIMUM
SIDE INTERIOR: NO MINIMUM
REAR: NO MINIMUM

MAX. BUILDING HEIGHT (PROPOSED): 45'

PROPERTY INFORMATION

PROPERTY OWNER:
MORGANTON PARK REALTY LLC
5 FIRST VILLAGE DRIVE
PINEHURST, NC 28374

APPLICANT:
MORGANTON PARK REALTY LLC
5 FIRST VILLAGE DRIVE
PINEHURST, NC 28374

TOTAL ACREAGE: ±5.19 AC (±1.45 AC IN R/W)

TOTAL IMPERVIOUS SURFACE: ±2.93 AC (56.5%)

REQUIRED PARKING PER MORGANTON ROAD OVERLAY:
MEDICAL OFFICE: ±1.68,000 SF (1 SPACE/250 SF MAX)
= 272 SPACES
TOTAL REQUIRED PARKING
= 272 SPACES

PROVIDED PARKING: 292 SPACES (1 SPACE/233 SF)

OPEN SPACE:
TOTAL REQUIRED: 0.00 AC
TOTAL USABLE: 0.00 AC
TOTAL AREA: 0.00 AC

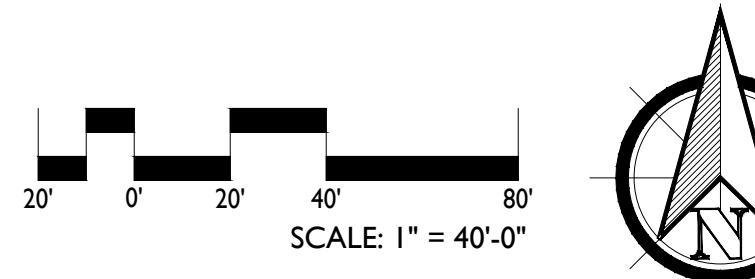
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CAUTION

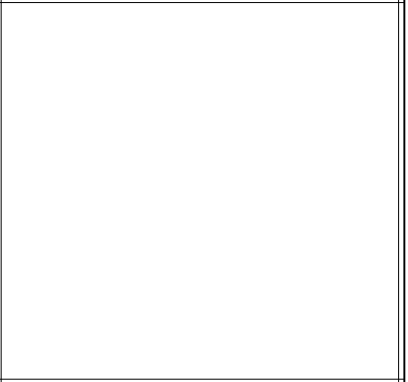
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REVISIONS:

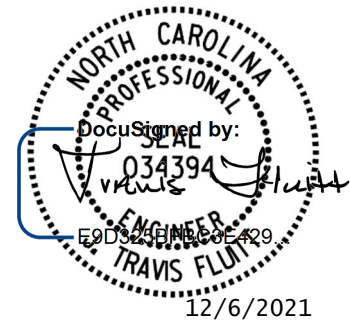
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SITE PLAN

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CHECKED BY: REK
SCALE: 1" = 40'
PROJECT #: KID21104
SHEET NUMBER: L-1.1

December 6, 2021

James Michel, P.E.
Town of Southern Pines
801 SE Service Road
Southern Pines, NC 28387



**RE: Morganton Park North Site 3 Medical Office Building, Southern Pines, NC –
Revised Traffic Impact Analysis**

Kimley-Horn has revised the Traffic Impact Analysis (TIA) for the proposed medical office building located on Site 3 within the Morganton Park North development in Southern Pines, NC. The site is proposed to consist of a 68,000 square-foot medical office building on the northwest quadrant of the intersection of Pavilion Way at Patriot Way. The TIA dated November 5, 2021 included 60,000 square feet of medical office space and a 15,000 square-foot quality restaurant. The development has a projected build-out year of 2023.

This report presents trip generation, distribution, traffic analyses, and recommendations for transportation improvements required to meet anticipated traffic demands in conjunction with the proposed development in the projected (2023) build-out year and the projected (2031) ten-year horizon condition per the Town's UDO. The site location is shown on **Figure 1**, while **Figure 2** shows the proposed site plan. The existing roadway laneage at the study intersections is shown on **Figure 3**.

Existing and Background Traffic

AM and PM peak hour turning movement counts performed on February 11, 2020 were obtained from the *Revised Pinehurst Medical Morganton Park North Medical Office Building TIA* (Kimley-Horn, March 2020) for the following intersections:

- Morganton Road at Brucewood Road
- Brucewood Road at Pavilion Way

As those turning movement counts are more than one year old, a 2% growth rate was applied for one year up to the existing study year 2021. No growth was applied to traffic volumes north of Morganton Road as approved development traffic is expected to account for those traffic increases.

Based on historic daily traffic volumes in the area and to be consistent with other TIA's performed in the area, an annual growth factor of 2% was applied to existing volumes for the 2023 study year scenarios, and an annual growth factor of 1% was applied to 2023 volumes to the 2031 study year scenarios.

Traffic from the Morganton Park Elementary School, Sandhills Pediatrics, Pinehurst Medical sites, Legends Apartments Expansion, and Pine Ridge Commercial developments were also included in the year 2023 and 2031 analyses as background traffic. Traffic from the Morganton Park South Master Plan build-out was included in the year 2031 analyses only. Morganton Park Elementary School is now open but was not open when the 2020 traffic counts were performed. Site traffic volumes for the Morganton Park Elementary School, Sandhills Pediatrics, Pinehurst Medical sites, and Legends Apartments Expansion were obtained from the *Legends Apartments Expansion TIA* (Kimley-Horn, April

6, 2021). Traffic diversions due to the extension of Carlisle Street from W. Lowe Avenue to Brucewood Road for both school and non-school traffic were also obtained from that study. Traffic volumes for the Pine Ridge Commercial and MPS Master Plan were obtained from the *Pine Ridge Commercial TIA* (Kimley-Horn, July 23, 2021).

Existing and projected (2023) background peak hour traffic volumes, which include historic growth traffic, approved development traffic, and Carlisle Street/Morganton Park Elementary School traffic diversions, are shown on **Figures 4 and 5**. Projected (2031) background traffic volumes are shown on **Figures 6 and 7**.

Trip Generation

The trip generation potential of the development was determined using the traffic generation rates published in the *ITE Trip Generation Handbook* (Institute of Transportation Engineers, Tenth Edition, 2017). Table 1 summarizes the estimated traffic generation potential for the site.

Table 1 ITE Traffic Generation (Vehicles)									
Land Use Code	Land Use	Intensity		Daily		AM Peak Hour		PM Peak Hour	
				In	Out	In	Out	In	Out
720	Medical Office Building	68,000	s.f.	1,263	1,263	123	35	65	168

Table 1 shows that the site has the potential to generate 2,526 new trips on a typical weekday with 158 new trips during the AM peak hour and 233 new trips in the PM peak hour.

Trip Distribution and Assignment

The proposed generated trips were assigned to the surrounding roadway network based according to the distribution below. The directional distribution and assignment were based on land uses and existing travel patterns in the area.

- 45% to/from the west along Morganton Road
- 35% to/from the east along Morganton Road
- 15% to/from the south along Brucewood Road
- 3% to/from the east along the future Carlisle Street Extension
- 2% to/from north along Brucewood Road

This is consistent with the TIA for the Pinehurst Medical sites. The site traffic distribution and percent assignment are shown on **Figure 8**.

The attached **Figures 9 and 10** show the year 2023 AM and PM peak hour site and build-out traffic volumes at the study intersections, respectively. **Figures 11 and 12** show the year 2031 AM and PM peak hour site and build-out traffic volumes at the study, respectively.

Capacity Analysis

Capacity analyses were performed using Synchro Version 10.3 software. Existing signal timings were obtained from NCDOT. Existing peak hour factors (PHF) were used for the existing traffic condition at

both study intersections. For all future AM peak hour conditions, a weighted PHF was used for all movements carrying projected Morganton Park Elementary School project traffic, with a PHF of 0.50 used for school-generated traffic volumes and existing PHF values used for non-school volumes. The future intersection of Brucewood Road at Carlisle Street was assumed to operate as an all-way stop as volumes are fairly equal on all approaches. The future intersection of Patriot Way at Pavilion Way was assumed to operate with stop-control for the Pavilion Way approaches. Synchro intersection level-of-service (LOS) reports are attached. The LOS for the study intersections are summarized in [Table 2](#).

Table 2 Level-of-Service Summary		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Morganton Road at Brucewood Road (Signalized)		
Existing (2021) Traffic	B (11.2)	B (15.2)
Background (2023) Traffic	C (20.7)	B (19.8)
Build-out (2023) Traffic	C (22.2)	C (20.6)
Background (2031) Traffic	C (21.2)	C (21.0)
Build-out (2031) Traffic	C (23.1)	C (21.9)
Brucewood Road at Pavilion Way (Unsignalized)		
Existing (2021) Traffic	WB – A (9.1) SBL – A (7.4)	WB – A (9.6) SBL – A (7.5)
Background (2023) Traffic	WB – B (13.9) SBL – A (8.0)	WB – B (13.3) SBL – A (7.8)
Build-out (2023) Traffic	WB – C (15.4) SBL – A (8.2)	WB – C (16.6) SBL – A (7.9)
Background (2031) Traffic	WB – B (14.0) SBL – A (8.0)	WB – B (13.4) SBL – A (7.8)
Build-out (2031) Traffic	WB – C (15.5) SBL – A (8.2)	WB – C (16.8) SBL – A (7.9)
Brucewood Road/Legends at Morganton Park Drwy. at Carlisle Street Extension (Unsignalized)		
Background (2023) Traffic	WB – B (12.9) SBL – A (7.6)	WB – B (10.3) SBL – A (7.6)
Build-out (2023) Traffic	WB – B (13.0) SBL – A (7.6)	WB – B (10.4) SBL – A (7.6)
Background (2031) Traffic	WB – B (13.0) SBL – A (7.6)	WB – B (10.4) SBL – A (7.6)
Build-out (2031) Traffic	WB – B (13.1) SBL – A (7.6)	WB – B (10.5) SBL – A (7.6)

Table 2 (cont.) Level-of-Service Summary		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Morganton Road at Patriot Way (Unsignalized)		
Background (2023) Traffic	SB – B (11.6)	SB – B (13.2)
Build-out (2023) Traffic	SB – B (11.8)	SB – B (14.6)
Background (2031) Traffic	SB – B (12.1)	SB – B (14.0)
Build-out (2031) Traffic	SB – B (12.3)	SB – C (15.7)
Carlisle Street Extension at Patriot Way (Unsignalized)		
Background (2023) Traffic	NB – B (10.3) WBL – A (7.5)	NB – A (8.7) WBL – A (7.3)
Build-out (2023) Traffic	NB – B (10.2) WBL – A (7.5)	NB – A (8.7) WBL – A (7.3)
Background (2031) Traffic	NB – B (10.3) WBL – A (7.5)	NB – A (8.7) WBL – A (7.3)
Build-out (2031) Traffic	NB – B (10.2) WBL – A (7.5)	NB – A (8.7) WBL – A (7.3)
Pavilion Way at Patriot Way (Unsignalized)		
Background (2023) Traffic	EB – B (11.5) WB – B (11.2) NBL – A (7.3) SBL – A (7.8)	EB – A (9.3) WB – A (9.9) NBL – A (7.2) SBL – A (7.3)
Build-out (2023) Traffic	EB – B (12.4) WB – B (11.9) NBL – A (7.3) SBL – A (7.8)	EB – A (9.8) WB – B (10.9) NBL – A (7.4) SBL – A (7.3)
Background (2031) Traffic	EB – B (11.5) WB – B (11.2) NBL – A (7.3) SBL – A (7.8)	EB – A (9.3) WB – A (9.9) NBL – A (7.2) SBL – A (7.3)
Build-out (2031) Traffic	EB – B (12.4) WB – B (11.9) NBL – A (7.3) SBL – A (7.8)	EB – A (9.8) WB – B (10.9) NBL – A (7.4) SBL – A (7.3)

The following roadway improvements have been implemented since the traffic counts were performed in 2020 or are currently under construction as part of other projects in the study area:

Morganton Road at Brucewood Road (NCDOT):

- Traffic signal modifications as part of Morganton Road resurfacing project
 - o Convert the eastbound and westbound left turns to Dallas Permitted Protected
 - o Convert the westbound right to a Permitted Overlap phase

S. Carlisle Street Extension (Morganton Park Elementary School):

- Extend S. Carlisle Street from Lowe Avenue to Brucewood Road

Morganton Road at Patriot Way

- Construct an exclusive westbound right-turn lane with 150 feet of storage and appropriate tapers
- Construct Patriot Way as a right-in/right-out with one ingress and one egress lane

Carlisle Street Extension at Patriot Way

- Construct Patriot Way with one ingress and one egress lane

With these improvements in place, all study intersections are expected to operate at an acceptable LOS in the projected 2023 and 2031 build-out traffic conditions. Decreases in delay observed between background and build-out conditions can be attributed to additional connectivity and associated diversion of school traffic volumes.

It should be noted that Synchro outputs and SimTraffic simulations show the potential for queues for the southbound left-turn movement on Brucewood Road at Morganton Road to extend beyond the available storage in the AM peak hour in the background and build-out scenarios. However, these spillbacks are short in duration and are expected to be resolved with signal timing modifications as development occurs.

The future roadway laneage is shown on **Figure 13**.

Should you have any questions or comments, please do not hesitate to contact me at (919) 653-2948 or travis.fluitt@kimley-horn.com.

Sincerely,



Travis Fluitt, P.E.
Senior Project Manager

Attachments: Figures 1-13, Traffic Count Data, Trip Generation Calculations, Approved Development Information, Volume Development Worksheets, Synchro LOS Reports

Agenda Item

To: Reagan Parsons, Town Manager

From: BJ Grieve, Planning Director

Subject: PD-11-21: A Planned Development District - Conceptual Development Plan for a Revision to an Existing Mixed-Use Development Project Located Across the Street from Reservoir Park on HWY 22

Date: January 11th, 2022

I. SUMMARY OF APPLICATION REQUEST:

Mr. Kevin Lindsay, on behalf of PTAH LLC., has submitted a Planned Development District – Conceptual Development Plan (CDP) application pursuant to §2.18.4 of the Town of Southern Pines Unified Development Ordinance (UDO) to amend the current approved CDP for the Waterworks development. Mr. Lindsay and PTAH are proposing a mixed-use development allowing up to 80,000 square feet of retail, and/or office space, and up to 80 residential dwelling units over four phases of development on ±28.79 acres. The property is located on the East side of Central Drive/ NC HWY 22 between Warrior Woods Road and Aiken Road. The subject parcel is identified as Moore County PIN 858300245709 (PARID 00039185) owned by PTAH, LLC with Andy Bleggi as the Registered Agent of PTAH, LLC. The property is presently zoned PD (Planned Development) with an approved CDP (file #PD-03-17).

II. PLANNING BOARD ACTION:

On December 16th, 2021, the Southern Pines Planning Board held a legislative public hearing and heard from those in attendance regarding application PD-11-21. Planning staff presented a review of the Planned Development (PD) Conceptual Development Plan (CDP) application. Planning staff briefly reviewed the differences between the approved Waterworks CDP and the proposed Waterworks CDP.

Following staff's comments, Mr. Andy Bleggi with applicant PTAH, LLC spoke to the Planning Board. Mr. Bleggi presented the reasons for the proposed amendments and architectural renderings of structures to be located in the first phase of development of the CDP. Mr. Kevin Lindsay presented some information regarding the technical aspects of the permitted uses and development layout. Mr. Lindsay clarified that the proposed CDP does not increase the amount of allowable commercial development, but does increase the number of permitted dwelling units.

During public comment, one member of the audience spoke regarding the project. Mr. John Taws expressed concerns with traffic safety on Central Drive in the vicinity of the proposed

development. Mr. Taws asked if the Town Council could communicate with NCDOT regarding his concerns.

Following public comment, the Planning Board asked the applicants a variety of clarifying questions and discussed various aspects of project design. After closing the public hearing, the Planning Board unanimously found the proposed CDP to be consistent with the CLRP as stated in Attachment A to the staff report for PD-11-21. The Planning Board added one additional matter as part of their written recommendation prior to unanimously recommending approval of PD-11-21.

Please find the signed Planning Board Resolution to Adopt a Written Recommendation for Conceptual Development Plan application PD-11-21 in the attachments section of this report.

Figure 1: Vicinity & Current Zoning Map (Subject Property outlined in Red):

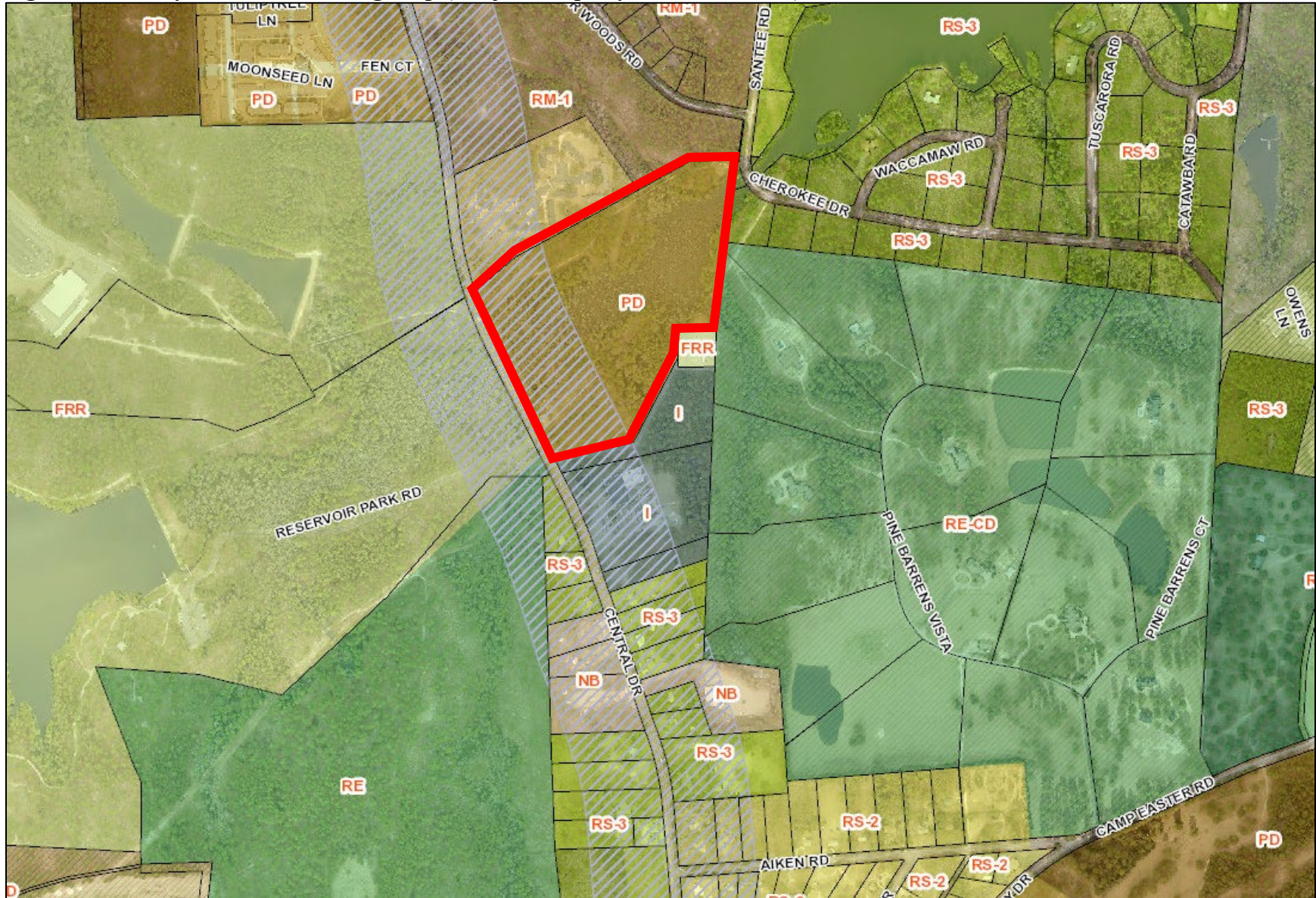


Figure 2: Oblique Aerial Image of Present Condition of Subject Property (October 22, 2021):



Figure 3: Approved 2017 Conceptual Development Plan (PD-03-17):

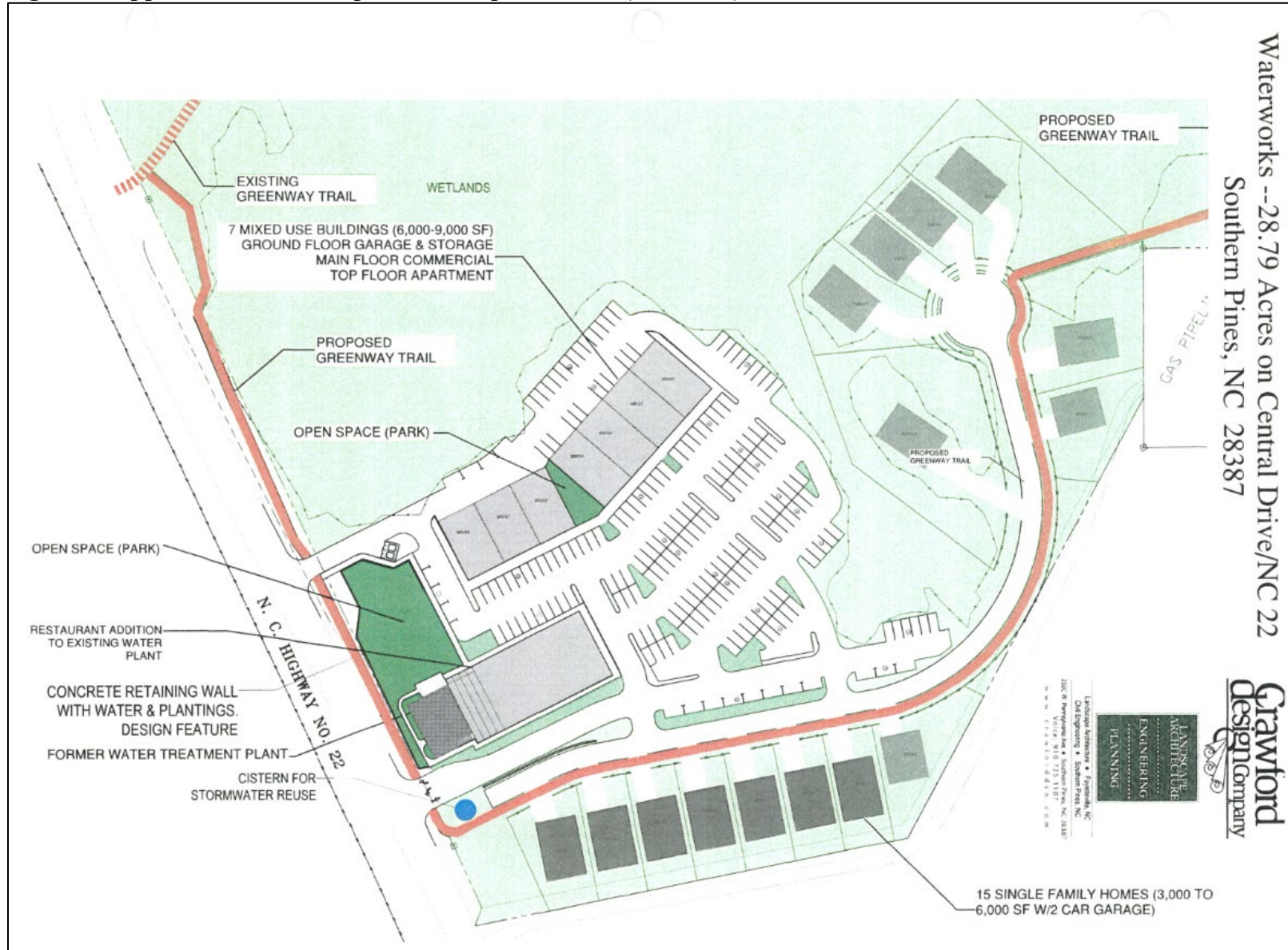
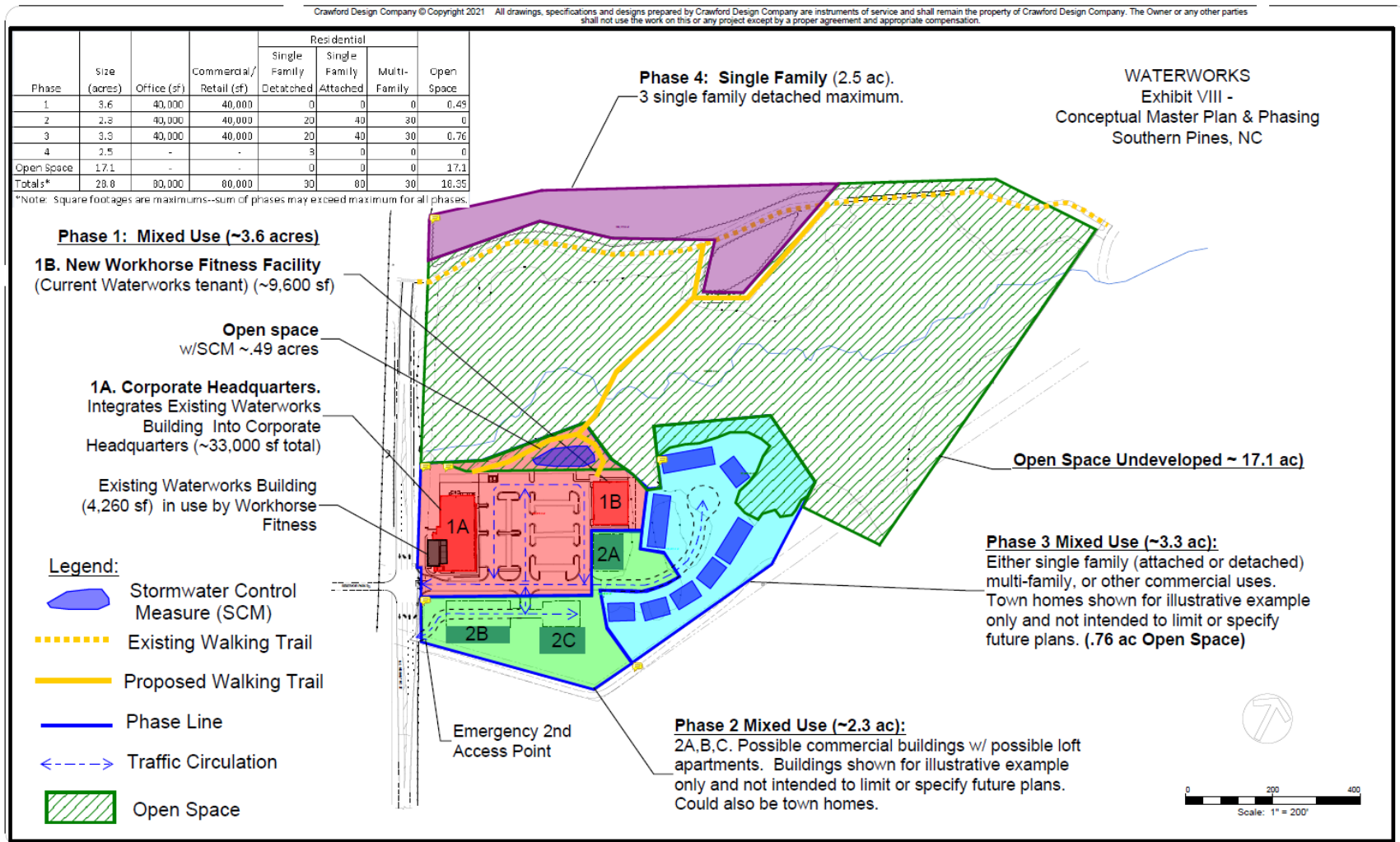


Figure 4: Proposed Conceptual Development Plan Layout (PD-11-21):



III. STAFF REVIEW:

A. Review Process:

Applications for a Planned Development District (PD) are reviewed in accordance with UDO §2.18. Creating a Planned Development District is a three-step process including Conceptual Development Plan (CDP), Preliminary Development Plan (PDP) and Final Development Plan (FDP). The first step, CDP, is when the unique zoning standards to which the entire project will be subject in the future are established via a rezoning process. This application is for a CDP.

B. Application Review Dates:

- CDP Application Submitted: November 15, 2021
- Application Deemed Incomplete: November 17, 2021
- The developers held a Neighborhood Meeting on November 29, 2021 in compliance with UDO §2.18.3(D). Meeting minutes, copies of materials presented and a sign-in sheet from the meeting are all attached to this staff report.
- Application Deemed Complete: December 1, 2021
- Notice of December 16, 2021 Planning Board Public Hearing:
 - Posted On-site: December 6, 2021
 - Mailed: November 23, 2021
 - Publication Dates: December 1, 2021 and December 8, 2021
- Planning Board Regular Meeting: December 16, 2021
- Town Council Regular Meeting: January 11, 2021

C. Criteria for Review:

The criteria for review and approval of a Conceptual Development Plan (CDP) are found in UDO §2.18.4(H):

Conceptual Development Plan

- 1. The proposed PDD satisfies the criteria for a zoning map amendment established in this chapter;*
- 2. The Conceptual Development Plan represents an overall Development Pattern that is consistent with the goals and policies of the Comprehensive Plan, Official Zoning Map, Capital Improvements Program, and any other applicable planning documents adopted by the Town;*
- 3. The proposed Development is appropriate for the area of the Town in which it is located; and*
- 4. The proposed Development will not generate the need for inefficient extensions and expansions of public facilities, utilities and services.*

D. Staff Comments:

i. Consistency with Goals and Policies of the Comprehensive Long-Range Plan (CLRP):

The applicant has provided a narrative addressing consistency of the proposed CDP with the Town's Comprehensive Long Range Plan. A copy of the applicant's narrative is attached to this staff report. The CLRP designation of the subject property was automatically changed from "Parks/Open Space" to "Traditional Mixed Use" when the property was rezoned from FRR to PD on April 10, 2018.

ii. Consistency with Criteria for a Zoning Map Amendment and for a Conceptual Development Plan:

An application for approval of a Conceptual Development Plan (CDP) follows the procedure for a rezoning because the CDP document, once approved, will constitute the zoning of the subject properties.

The criteria against which a CDP shall be reviewed are found in UDO §2.18.4(H). The applicants have provided a narrative addressing the criteria for a Zoning Map Amendment per UDO §2.18.4(H)(1), and a narrative addressing the remaining three criteria for a CDP per UDO 2.18.4(H)(2) through (4). Copies of the applicant's narrative documents containing their descriptions of the manner in which the project meets applicable criteria are attached to this staff report.

iii. Deviations from Unified Development Ordinance (UDO):

The applicant has provided a CDP containing some unique design standards within Waterworks. Any development design requirements not specifically modified within the CDP will default to the requirements set forth in the UDO.

The applicant has provided an Exhibit attached to the CDP entitled "Exhibit XIII List of Deviations." However, no deviations are presented in the Exhibit. See CDP Exhibit XIII. The applicant, Planning Board and Town Council may wish to carefully examine all proposed CDP standards in the Waterworks CDP, and in particular all design requirements not modified in the CDP, to ensure that all applicable standards can be met at Preliminary Development Plan and site plan review.

iv. Consultation with Technical Review Committee:

The proposed development was presented to the Town of Southern Pines Technical Review Committee (TRC) on November 30, 2021. Discussion was held regarding future access to Central Drive and on-site emergency vehicle circulation. At this time, the TRC is unable to provide specific feedback because much of the proposed Waterworks design is not determined. For example, in the "Supplemental CDP info Waterworks" document, a site plan states "All other items shown are conceptual and intended to show an example of what could be done. Actual (sic) future phases may be significantly different."

Due to the lack of specificity in the CDP regarding future land uses, specific location(s) of land uses and overall site layout (i.e. parking circulation, etc.) the TRC must wait and review more specific plans submitted with future applications for Preliminary Development Plans.

v. Noteworthy Project Elements for Planning Board & Town Council Consideration:

- Overall, the applicants are proposing to increase total developable area within the 28.8-acre Waterworks development (see Exhibit VIII of CDP), clearly establish as part of the CDP the total amount of office and retail space allowed within the Waterworks development (160,000 square feet, see page 9 of CDP), increase the total number, type and location of residential dwelling units to a maximum of 80, and clearly establish as part of the CDP the number of by-right uses (see Exhibit VII of CDP). The applicant is also proposing to decrease the amount of trail being provided within the Waterworks development due to technical constraints encountered with NCDOT right of way and a pond on the northeast side of the property.

Copies of the 2017 original approved Waterworks CDP and Phasing Plan are attached to this report for comparison.

- An Exhibit entitled “TIA” is attached to the CDP (Exhibit XIV) but no TIA was submitted. A TIA is not required at CDP, but will be required with a PDP application.
- A document entitled “Site Plan” was submitted on November 30, 2021 that does not appear to have any connection to Exhibits in the CDP. The Planning Board and Town Council may wish to ask the applicants about the purpose of this document and how it relates to the CDP.

IV. Cooperating Agency Review and Comments:

A request for comments from agencies was emailed to representatives of the Town’s Technical Review Committee (TRC), the North Carolina Department of Transportation (NCDOT), U.S. Fish and Wildlife Service, Regional Land Use Advisory Commission (RLUAC) and Moore County Airport on November 22, 2021.

- Dagoberto JuarezPozos with NCDOT commented on November 29, 2021 that his agency has no comments at this time. However, he did state that “the engineer is working on turn lane design/plans for us to review/approve as part of the driveway permit requirements from our office.”
- Vagn Hansen with RLUAC provided written comments on November 29, 2021. A copy of RLUAC’s comments are attached to this staff report.

V. ATTACHMENTS:

The following materials are provided as attachments to this staff memorandum:

1. Planning Board Resolution to Adopt a Written Recommendation
2. Waterworks CDP Application, assembled by staff from November 15, 2021 and November 30, 2021 submittals:
 - a. Waterworks CDP Text
 - b. Exhibits I – XIV
3. Additional site plan submitted November 30, 2021 w/o Exhibit label
4. Waterworks CDP Applicant Narrative (November 30, 2021 Submittal):
 - a. Addressing Criteria in UDO 2.18.4(H)(1)
 - b. Addressing Criteria in UDO 2.18.4(H)(2) through (4).
5. Current Waterworks CDP
 - a. Concept Site Plan w/ Land Uses (January 19, 2018)
 - b. Phasing Plan
6. RLUAC Comments

VI. TOWN COUNCIL ACTION:

A request for approval of a Conceptual Development Plan is a request for a rezoning. Per North Carolina General Statute 160D-605(a), when approving or denying a request for a rezoning, the Town Council shall also approve a statement addressing consistency with the Comprehensive Long Range Plan. Furthermore, per North Carolina General Statute 160D-605(b), the Town Council must also approve a statement about the reasonableness of the rezoning.

To assist the Town Council, town staff have prepared the following draft motions consideration, modification as necessary, and adoption:

I move that after reviewing the proposed Conceptual Development Plan and the criteria for consideration of a Conceptual Development Plan, and after considering the comments received at the Town Council's public hearing and the Planning Board's written recommendation:

1. The requested Conceptual Development Plan is consistent with the Comprehensive Long Range Plan and is a reasonable request for rezoning for the reasons set forth in the written Planning Board recommendation attached to staff report PD-11-21;
2. The requested Conceptual Development Plan is consistent with the Comprehensive Long Range Plan and is a reasonable request for rezoning for the reasons set forth in the written Planning Board recommendation attached to staff report PD-11-21 and as modified by Town Council as follows:
3. The requested Conceptual Development Plan is inconsistent with the Comprehensive Long Range Plan and is not a reasonable request for rezoning for the following reasons:

And, therefore, I move to:

1. Approve PD-11-21 as submitted and as set forth in attachments to staff report PD-11-21;
2. Approve PD-11-21 as submitted and as set forth in attachments to staff report PD-11-21, with the condition that the CDP be modified as stated below...,
3. Deny PD-11-21;



ATTACHMENT A

PLANNING BOARD RESOLUTION TO ADOPT A WRITTEN RECOMMENDATION FOR CONCEPTUAL DEVELOPMENT PLAN APPLICATION PD-11-21

WHEREAS, Section 160D-604(d) of the North Carolina General Statutes specifies that the Planning Board shall provide a written recommendation to the Town Council that addresses plan consistency and other matters as deemed appropriate by the planning board, but that a comment by the Planning Board that a proposed amendment is inconsistent with the comprehensive plan shall not preclude consideration or approval of the proposed amendment by the governing board.

WHEREAS, pursuant to Section 160D-701 of the North Carolina General Statutes, zoning regulations shall be made in accordance with a comprehensive plan and shall be designed to promote the public health, safety, and general welfare.

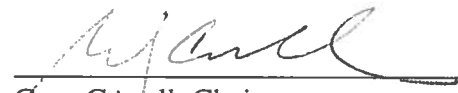
WHEREAS, the Planning Board conducted a public hearing on December 16, 2021 for consideration of a revised Conceptual Development Plan for the Waterworks Planned Development;

NOW, THEREFORE BE IT RESOLVED that the Planning Board finds and recommends to the Town Council that the Conceptual Development Plan application PD-11-21 is consistent with the Town of Southern Pines Comprehensive Long Range Plan (CLRP) because the entire subject property is specifically designated for a future land use of “Traditional Mixed Use” and has an approved Conceptual Development Plan (CDP) for a mixed use development. The proposed revisions to the CDP for the Waterworks Planned Development significantly increase the intensity of development of the subject parcel, but the Planning Board finds this to be acceptable because of the mix of proposed land use options, the access to existing facilities and services, the preservation of wetlands and floodplain as open space, the development of a trail crossing the wetlands and floodplain and the access improvements to satisfy the North Carolina Department of Transportation’s requirements.

AND, THEREFORE, BE IT FURTHER RESOLVED that the following additional matters were considered by the Planning Board as a basis for a recommendation of approval to the Town Council regarding PD-11-21:

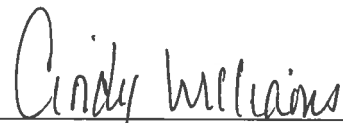
1. Though traffic impacts were not reviewed for this CDP, the Planning Board is concerned about current and future build-out traffic related to PD-11-21 on NC-22. The current speed limit is 45 mph. The Town Council should consider reviewing

ADOPTED this the 16th day of December, 2021.



Gary Carroll, Chairman

ATTEST:



Cindy Williams
Secretary to the Planning Board

PD DISTRICT CONCEPTUAL DEVELOPMENT
PLAN APPLICATION, Revised 2021
THE WATERWORKS PROJECT
SOUTHERN PINES, NORTH CAROLINA

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- 6.0 Draft Covenants & Restrictions
- 7.0 Estimated Water and Sewer Demand
- 8.0 Traffic Impact Analysis
- 9.0 Statement about Dedication of Streets

Exhibits

- Exhibit I Southern Pines -Application
- Exhibit II Site Location Map
- Exhibit III Neighborhood Meeting Sign-In Sheet and Report
- Exhibit IV Existing Conditions – Aerial Imagry
- Exhibit V Existing Conditions – Property Information
- Exhibit VI Adjacent Property Owners
- Exhibit VII Land Use Plan
- Exhibit VIII Conceptual Master Plan
- Exhibit IX Conceptual Transportation and Drainage Plan
- Exhibit X Street and Sidewalk Standards
- Exhibit XI Signage Standards
- Exhibit XII Proof of Ownership

1.0 PURPOSE

The purpose of the PD – Conceptual Development Plan application is to:

- Replace the approved CDP (PD-03-17) with a modified Conceptual Development Plan (CDP) that better addresses planned development in the Planned Development (PD) district.
- Establish the permitted uses, density, standards and conditions under which the subject property shall be developed through this document.

The Town's Conceptual Development Plan application form is included as Exhibit I and the required items, per Section 2.18.4 Conceptual Development Plan of the Town's Unified Development Ordinance (UDO) are included as a part of this request. The Conceptual Development Plan of this property shall include all standards and conditions included in this document.

The proposed PD – CDP and land uses for the Waterworks Parcel are consistent with the Town's Comprehensive Long Range Plan (CLRP) and promote its objectives. The CLRP has designated the property as Traditional Mixed-Use. This CDP encourages a variety of land uses and building types including single family, retail, restaurant, service and office uses. The CDP results in a master planned development, and discourages disjointed, piecemeal development. The CDP excludes very intensive commercial uses and heavy industry.

2.0 PROJECT OVERVIEW

2.1 Location

The subject property is now one parcel: PID 00039185 and PIN 858300245709 geographically located north of downtown Southern Pines and east of the Midland Road/Hwy 22 interchange. The proposed parcel consists of approximately 28.79 acres of land which is bordered by Hwy 22 on its west boundary. Mill Creek runs through the site from west to east. A site location map showing the site and immediate surroundings is included in Exhibit II. The proposed parcel falls within the Town of Southern Pines. Utilities are available at the site with capacity to accommodate the proposed development.

2.2 Vision

Our vision is to develop a high-quality, mixed use community that will be carefully integrated into the surrounding area and compatible with the surrounding communities. Architectural themes, landscaping and design elements common to Southern Pines will be utilized as described in the Town of Southern Pines UDO. Industrial, water, metal wood, and glass architectural elements will be use to first integrate the existing Waterworks Plant into a corporate headquarters and a new larger fitness facility. Future phases shall included similar elements for continuity while retaining flexibility for the design architect to keep the development fresh and up to date. The master plan provides for a mixture of land uses, allows for the preservation and creation of open spaces, parks and trails and utilizes design that results in a cohesive community.

The community will not be gated and all roadway designs will be pedestrian friendly, providing trails and/or bikeways as well as traffic calming devices to encourage workability.

Significant open spaces are incorporated into the master plan and mature, existing vegetation will be saved in and around open space, roadways and buffers to the extent possible. Generous buffers are provided along the project edges. Frontages will be enhanced with landscape and hardscape features in keeping with the area. Community parks, trails sidewalks and a street tree planting program will be included. Future greenway connections will be provided as the Town's Greenway network expands. The community will be controlled by covenants and restrictions. Best management practices and sustainable design techniques will be implemented for development, storm water management and erosion control.

A detailed description of the development program, conditions and standards is included in Section 5.0 of this document.

2.3 Applicant and Project Team

The applicant is PTAH, LLC. Consultants currently include Duncklee & Dunham--Environmental Phase I; Crawford Design Company--Site Civil, Land Planning, Landscape Architecture; Neil Smith Engineering, Inc--Structural, Plumbing, Mechanical, Electrical Engineering; Craig Foster, PA--Land Surveying; Ramey Kemp & Associates--Transportation Engineers; Wetland Solutions--Environmental Consultants.

2.4 Compliance

All development within the site must adhere to the approved standards and conditions stated in this document. The conditions and requirements stated in this document that vary from the UDO shall supersede the UDO. Prior to the issuance of a building permit and start of any construction, a Preliminary Development Plan for each phase must be submitted and approved per the requirements of Section 2.18.5 of the UDO. Prior to the issuance of a building permit for retail or office construction, the Town's architectural review board must also review and approve the building elevations for compliance with the Town of Southern Pines architectural requirements. All development and building permits are subject to all Local, State and Federal permitting guidelines, architectural review, rules and regulations and must be approved by the Town of Southern Pines.

3.0 CONCEPTUAL DEVELOPMENT APPLICATION – See Exhibit I

4.0 EXISTING CONDITIONS

4.1 Existing Natural Features

4.1.1 Prevalent Tree Canopy and Vegetation

The tree canopy type and vegetation of the prevalent tree canopy and vegetation are included in Existing Conditions – Prevalent Tree Canopy and Vegetation Exhibit IV- See Arial Photo. Vegetative communities on the subject tract include Xeric Sandhill Scrub, Pine-Scrub Oak Sandhill, Streamhead Pocosin, Coastal Plain Small Stream Swamp-Blackwater Subtype and Sandhill Seeps. Pine-Scrub Oak Sandhill habitat is the most prevalent community type in the uplands and Streamhead Pocosin habitat was the most prevalent community type in the wetlands. The stands are approximately 15, 30 and 50 years old, have a moderately dense midstory of turkey and blackjack oaks and a sparse herbaceous layer of Carolina wiregrass. Areas adjacent to Mill Creek consist of Coastal Plain Small Stream Swamp habitats are dominated by blackgum with sparse understory and moderately dense shrub layer including tag alder, possum-haw viburnum, titi and Chinese privet. Switch cane, tearthumb and marsh dewflower dominate the herbaceous layer, Streamhead Pocosins and have pine tulip poplar and red maple in the understory with a dense shrub layer dominated by sweetbay magnolia, coastal whitealder and sweet gallberry. Switch cane and blasphemous-vine are also prevalent in the Streamhead Pocosins. Tree canopy and vegetation will be further identified as required during the permitting process.

4.1.2 Orchards or Other Agricultural Groves

No portion of the site is currently being used for an orchard or agricultural use nor do any exist on the site.

4.1.3 Streams, Wetlands and Floodplain

Mill Creek bisects the site from west to east. The locations of the stream, wetlands and floodplain are depicted in the Existing Conditions Map – Wetlands/Floodplain/Topography found in Exhibit V. Jurisdictional wetlands were delineated and mapped on the site and been field verified by the Army Corps of Engineers. Wetlands encompass approximately 14.59 acres of the site. The wetlands are generally located in and around Mill Creek as well as low-lying areas surrounding the creek. The proposed development is located in a WS III watershed. The site is located outside of the WSIII critical area but within a designated High Quality Water Quality (HQW) zone. A review of the maps and documentation included in Soil Survey of Moore County (USDA, 1995) was conducted to evaluate soil types. The soil types, Existing Conditions – Soils found in Exhibit VI, found on the site are limited to: 27% AeB Ailey loamy sand, 2% slopes; 40% Bbi Bibb loam, 0-2% slopes; 33% Candor sand 0-4% slopes; Candor sand 4-12% slopes; Fuquay loamy sand 4-12% slopes. All of these soil types are good buildable soils other than the Bibb loam. The Bibb

loam is generally isolated to the low-lying stream areas around Mill Creek and is generally associated with wetlands areas.

4.1.4 Topographic Features

A topographic map with two (2') foot contours is included on the Existing Conditions Map – Wetlands and Topographic Information found in Exhibit V. A slope survey was conducted using USGS topographic maps as well as data and aerial photography maintained by Moore County. Gently rolling slopes of 0 to 15 percent occur over more than 90% of this site making it well suited for the type of development proposed. Only isolated areas or less than 10% of the site are found to have slopes in excess of 15% which pose minimal constraints on development.

4.1.5 Unique Land Formations, Endangered/Threatened Species

The subject property is improved with the former Town of Southern Pines water treatment plant. The Town stopped using the facility approximately 35 years ago. The original Southern Pines waterworks building will remain and its exterior will be refurbished to the original 1949 exterior appearance except as required for handicap access and/or as required to attach building addition to the rear of the existing building.

There are no unique land formations, waterfalls, rock outcroppings or other features. Trails are present on portions of the site and connect to the Southern Pines greenway trail systems.

Per the Environmental Phase I report by Duncklee & Dunham, August 2017, the original plans show water pipes that are still located in the shown site area and show a cistern under the original building. There is also a “settling wash” and “clear well” that have been filled in on the site and may impede future construction. The Phase I Environmental Assessment “did not reveal evidence of recognized environmental conditions in connection with the property except for the debris piles place on-site by the Town, and the hydraulic cylinder used for the elevator buried beneath the ground under the vault.”

A protective species review of the site was conducted for the site. No protected species (Federal or State) were detected on site or identified and it was determined that the proposed project will have “no effect” on other species listed as Threatened or Endangered, or proposed for such listing, by the USFWS or the State of NC. There are no know active red cockaded woodpeckers (“RCW”) cluster on site. The site does fall within a foraging partition, hence the site will be surveyed for cavity trees before any habitat is removed. See Exhibit XIV for Woodpecker Survey Map.

A cultural resources review was done on the site and there is no evidence of any recorded cemeteries, historic structures or improvements within the site except for the former waterworks plant.

All development and building permits within the site are subject to all Local, State and Federal permitting guidelines, rules and regulations. Additional studies will be conducted as required for permitting.

4.2 Existing Man-made Features

4.2.1 Streets, Roads, Parking or Other Structures

There are no existing streets, roads, sidewalks, walkways and associated drainage structures on the site, except for the Southern Pines Greenway Trail easement.

4.2.2 Storm Water Facilities and Structures

There is a temporary Stormwater Control Measure (SCM) to control runoff from the renovation of the existing Waterworks building and temporary parking.

4.2.3 Utilities

Public water, sewer, electricity and telephone service are available.

4.2.4 Buildings, Structures, Signs and Historical Structures

Except for the former waterworks plant, there are no historical structures on the site. There is a Southern Pines pump station on the northeast corner of the property.

4.3 Existing Legal Features

4.3.1 Zoning Information – The subject property is currently zoned as a Planned Development (PD) district as shown on the Town of Southern Pines Zoning Map.

4.3.2 Property Lines – see Exhibit VII

4.3.3 Right of Ways – Adjacent rights-of-way along property edges are Hwy 22 (Central Drive) and Cherokee Rd on the northeast edge and are depicted in Exhibit VII.

4.3.4 Easements – Utility easements are depicted in Exhibit VII

4.3.5 Ownership Information – The property identified by PID 00039185 and PIN 858300245709 was acquired by PTAH, LLC from the Town of Southern Pines as shown on the deed located in Book 5099 Page 508, recorded March 12, 2019.

4.3.6 Adjacent Parcel Information – The adjacent parcel owners, zoning use, pin numbers and Parcel ID numbers are listed on the Adjacent Property Owners found in Exhibit VI.

5.0 DEVELOPMENT CONDITIONS

5.1 Development Program

The development may include residential, office, commercial, restaurant/bar, community parks, recreational areas and natural open spaces per Tables 1.0 and 2.0 below. The allowable development program (land use, number of dwelling units, and/or gross floor area of nonresidential) for each development area is presented in Table 1.0. Each area is graphically depicted in the Land Use Plan included in Exhibit IX. The Conceptual Master Plan is included in Exhibit VIII. The permitted uses by area are indicated in Table 2.0 below.

Table 1.0 Development Program

CATEGORY	
Acreage	+/- 29 acres
Recreation Areas and Amenities (including parks and trails)	
Residential	80 Maximum (up to 6 units/acre)
Allowable Mix	
Single-Family Detached	Up to 30
Single-Family Attached	Up to 80
Multi-Family Units (Above Retail or Stand Alone)	Up to 30
	(no combination may exceed 80 total units)
Office	Up to 80,000 sf
Commercial/Retail	Up to 80,000 sf

Note: No single retail building footprint will exceed 20,000 square feet

5.2 Development Standards – Dimensional Standards

The permitted dimensional standards, project edges and open space are presented below in Tables 3.0, 4.0 and 5.0 below. Graphic illustrations of typical lot types and setbacks are included as Exhibit XI. The Project Edges and Buffers are demonstrated in Exhibit XII. Open space is further discussed in Section 5.5.2 below.

Table 3.0 Dimensional Standards

CATEGORY	
Single Family Residential	
Min. Lot Size	4000 SF
Min. Lot Width	40 FT
Min. Building and Yard Setbacks	
Front	5 FT
Side-Street	10 FT
Side Interior	5 FT
Rear	5 FT
Max. Impervious Lot Cover	70%
Max. Building/Structure Height	45 FT
Cottage	
Min. Lot Size	4000 SF
Min. Lot Width	40 FT
Min. Building and Yard Setbacks	
Front	5 FT
Side-Street	10 FT
Side Interior	5 FT
Rear	5 FT
Max. Impervious Lot Cover	70%
Max. Building/Structure Height	45 FT
Townhome	
Min. Lot Size	2000 SF/UNIT
Min. Lot Width	20 FT
Min. Building and Yard Setbacks	
Front	5 FT
Side-Street	0 FT
Side Interior	0 FT
Rear	5 FT
Max. Impervious Lot Cover	90%
Max. Building/Structure Height	45 FT
Multi-Family	
Min. Lot Size	3000 SF/UNIT
Min. Lot Width	20 FT
Min. Building and Yard Setbacks	
Front	5 FT
Side-Street	5 FT
Side Interior	15 FT
Rear	10 FT
Max. Impervious Lot Cover	90%
Max. Building/Structure Height	45 FT
Commercial/Office/Non-Residential/Amenities	

Min. Lot Size	2000 SF/UNIT
Min. Lot Width	20 FT
Min. Building and Yard Setbacks	
Front	0 FT
Side-Street	5 FT
Side Interior	0 FT
Rear	5 FT
Max. Impervious Lot Cover	90%
Max. Building/Structure Height	45 FT

Table 4.0 – Open Space

Category	Required	Amount Provided
Total	5.76	16
Usable	2.88	16

Open space provided as required by Section 3.5.14.

5.3 Treatment of Onsite Natural and Man-Made Features

5.3.1 Natural Features

The majority of the property's wetlands will remain undisturbed and protected. As required by law, any impacts must be permitted and mitigated per the requirements of the Army Corps of Engineers and North Carolina Department of Environment and Natural Resources.

As required by US Fish and Wildlife, the understory in areas of suitable and potentially suitable red cockaded woodpecker foraging habitat will be managed during the development process.

The community lies within the WSIII HQW Watershed District established by NCDWQ. The project will comply with all state and local standards for water quality including any and all required setbacks, buffers and storm water management requirements. The project will utilize best management practices and engineered storm water facilities.

5.3.2 Man Made Features

The existing waterworks building was renovated and occupied as a fitness facility. That tenant will be relocate to a new facility on site and the Waterworks building will be incorporated into a new corporate headquarters.

5.4 Statement Regarding Public Facilities

The community greenway trails will be added to the Town of Southern Pines greenway system. The greenway trails are anticipated to be dedicated to the Town of Southern Pines. Future connection points are also provided to the Town's greenway system. The Town and homeowner's association may enter into a supplemental maintenance agreement for such areas.

5.5 Additional Design Conditions

The following additional development standards will control development on the site:

5.5.1 Vehicular Circulation and Street Cross Sections

Roadway designs are intended to be pedestrian and bicycle friendly with traffic calming measures resulting in a walkable community. In residential and commercial areas, alleys may be implemented to provide access to garages and service areas in the rear of homes and businesses. Private drives and vehicles use areas will be the primary means of vehicular circulation. The Traffic Impact Analysis is included as Exhibit XIV and outlines the current traffic volumes and conditions, volumes at the proposed build out and proposed traffic mitigation measures required for the full build out. Roadways adjacent to the community are governed by the NCDOT and therefore the Traffic Impact Analysis, ingress/egress and proposed mitigation requires NCDOT approval and all mitigation measures will be implemented per the requirements of and as established by the NCDOT.

Ingress/Egress Points

Central Drive – One (1) access points

Private Drive – The typical cross section standard for a private is included in Exhibit XIII.

Cul-de-sacs – Cul-de-sacs will be limited in the community, however, in some instances cul-de-sacs may be provided based on land features and parcel boundaries.

5.5.2 Open Space, Amenity and Pedestrian Circulation

A network of pedestrian sidewalks, greenway and equestrian trails and parks will be provided throughout the community. In residential neighborhood areas, a minimum 5' sidewalk will be provided in front of residences on at least one side of the roadway unless street design does not have curb and gutter. Any neighborhood or community parks and green spaces are anticipated to be dedicated to the Town of Southern Pines and/or the homeowners association. The Town and homeowners association may enter into a supplemental maintenance agreement for such areas.

5.5.3 Architectural Standards

The community will be controlled by architectural standards through the community's Covenants and Restrictions. Architectural standards are desired to maintain consistency and quality through the life the development. The Town of Southern Pines architectural review board will review and make recommendations on all non-residential building plans for compliance with the Town's architectural standards. All development and building permits are subject to all Local, State and Federal permitting guidelines, architectural review, rules and regulations.

5.5.4 Landscaping and Buffering

Landscape standards will meet or exceed the requirements of the Town of Southern Pines UDO per Section 3.5.14(H). Landscape buffers will be installed per the UDO unless otherwise specified in this document.

5.5.5 Utilities

Electric, water sewer and electric utilities are readily available and border the site. New utility lines will be installed per the policies of the local utility providers and the Town of Southern Pines for underground utilities. The community's estimated water and sewer demand is included in Section 7.0.

From time to time, temporary services may be required and shall be allowed at community facilities, temporary construction offices, temporary sales centers, and other common amenities such as parks.

5.5.6 Street Lighting

Street lighting will be designed in conformance with the requirements of Section 4.8 in the Town of Southern Pines UDO. The cost of installation and maintenance of any specialty street lighting shall not be the responsibility of the Town of Southern Pines. Appropriate lighting in park areas will be provided.

5.5.7 Signage

The signage program will be designed in conformance with the requirements of the Town of Southern Pines UDO in Section 4.6 and may include landmark signs as described in Section 4.6.14. The location of primary project signage is included on the Land Use Plan in Exhibit IX. The cost of installation and maintenance of any specialty street signage shall not be the responsibility of the Town of Southern Pines.

5.5.8 Accessory Uses

Accessory dwellings and uses may be incorporated in various areas per Section 5.2 and 5.3 of the Town's UDO.

5.5.9 Temporary Uses

Temporary construction trailers including, but not limited to real estate, construction and sales offices may be installed during the period of construction and real estate sales. Other temporary uses may include tree or sod farms and plant nurseries, special event parking, special event material storage, construction material storage and staging, arts and crafts festivals, athletic events, outdoor concerts and other special events. Any temporary uses must obtain the appropriate permits from the Town of Southern Pines.

5.5.10 Storm Water Management and Water Quality Management

The Petitioner acknowledges that the subject site is located within a state regulated and protected drainage basin and accordingly agrees to fully comply with all aspects of applicable local and state standards and regulations for storm water mitigation and watershed protection, including specific requirements for erosion and sedimentation control. Best management practices shall be utilized in accordance with NCDEQ guidance. The maintenance of any proposed storm water devices shall not be the responsibility of the Town of Southern Pines.

6.0 DRAFT COVENANTS & RESTRICTIONS

and prior to issuance of a building permit for any vertical building."

Draft Covenants & Restrictions for each phase will be provided during the Final Development Plan process as required by the UDO in Section 2.18.(D). The covenants and restrictions will be recorded in the public records upon the approval of the Final Development. If any project edge is within a platted lot it shall be protected legally though the community's covenants and restrictions which shall be enforceable by the Town of Southern Pines.

7.0 ESTIMATED WATER AND SEWER DEMAND

Both water and sewer capacity is available for the full build out of the proposed development. As of July 2017, the sewer plant is running at approximately 5.4 million gallons per day and is currently permitted for 10 million gallons per day. According to the Town's 2016 Local Water Supply Plan, the Town has a permit to draw up to 14 million gallons per day from Drowning Creek and a permitted water plant capacity of 8 million gallons per day. The 2016 average water production was 3.76 million gallons per day with a Max Day Usage of 5.92 MGD in July of 2016. The average 2016 water production was 3.74 million gallons per day. The town also has a 160-million-gallon reservoir of off-stream reservoir storage capacity to maintain a minimum 30-day water reserve.

The proposed project will be phased and developed over a projected 15-year period. At full build out, the proposed development is anticipated to use 11,600 gallons of water and capacity per day. A water and sewer availability letter must be obtained and submitted with each incremental master development plan submittal. The estimated water and sewer demand at full build-out is calculated below.

Projected Water & Sewer Demand at Full Build-out

Product Description	Projected Build-out Units	Design Flow	Subtotal Flow at Build-out (Gallons Per Day)
Single Family (3 bedroom)	80	120 gal/day/bedroom	28,800 Gpd
Office (250 sf/person, 1 shift)	40,000	25 gal/day/person/shift	4,000 Gpd
Commercial/Retail	40,000	120 gal/day/1,000 SF	4,800 Gpd
		Subtotal Flow at Build-out	37,600 Gpd
		Average Annual Flow (15-year build-out)	13.72 Mil Gal.

Note: These numbers are for maximum possible in all areas. Actual flows will likely be much less.

8.0 TRAFFIC IMPACT ANALYSIS (TIA)

A TIA was completed in 2018—See Appendix XIV. Based on that TIA turn lanes are planned for NC 22. NCDOT recently require that the storage for the left turn lane be increased to 75' from the 50' listed in the approved TIA.

9.0 STATEMENT ABOUT DEDICATION OF STREETS

It is not anticipated that any public streets will be built or turned over to the Town of Southern Pines.

Exhibit I
Southern Pines – Application

Planned Development District Conceptual Development Plan

REQUIRED APPLICATION MATERIALS:

- ☒ **Application fee** in the amount of **\$1,800.00**.
- ☒ **Completed Application** for a Planned Development District - Conceptual Development Plan signed by the applicant.
- ☒ **Appointment of Agent**, if applicable, signed by the property owner(s) and the agent.
- ☒ **List of Adjacent Property Owners**: Please list all properties that are that are within two hundred (200) feet of the outermost boundaries of the subject property (**not counting streets, railroads or other transportation corridors**). Attach additional pages if needed. No fewer than ten (10) property owners shall be notified by mail.
- ☒ **Deed** copy to provide proof of ownership and property boundaries.
- ☒ **Written narrative**: It is the responsibility of the applicant to demonstrate compliance with all applicable criteria. Please address **UDO §2.18.4(H) Criteria (1) through (4)**. The list of criteria is attached.
- ☒ **Additional documentation**: Additional text and/or maps to demonstrate consistency with the approval criteria listed in **UDO §2.18.4(H) Criteria (1) through (4)**.
- ☒ **Neighborhood meeting materials**: Submit copies of graphics presented at the meeting; a copy of the sign-in sheet showing attendees; representations made by the Applicant regarding the proposed development; and a summary of public comments and responses.
- ☒ **PDD Conceptual Development Plan**: One (1) full-size copy of a scaled drawing (1" to 100') of the entire tract to be subdivided. Please refer to the **UDO Appendices** to obtain plan requirements.
- ☒ **Nature of service**: Planned utility services and providers.
- ☒ **Drainage concept plan** if applicable.
- ☒ **Conceptual Transportation Plan** if applicable.
- ☒ **Electronic copy (PDF) of all application materials** submitted to plan@southernpines.net.

PLEASE SUBMIT ONLY ONE (1) COMPLETE SET OF ALL MATERIALS.

REVIEW AND APPROVAL:

1. **Staff review**: Planning staff will review the application and notify the applicant if additional information or materials are needed.
2. **Public hearings**: The applicant is expected to attend a public hearing on the application before the Planning Board and before the Town Council the following month. (Please refer to the **Application Processing Timeline** to determine the hearing dates.) The Planning Board will recommend approval, conditional approval or denial to the Town Council. The Town Council will consider that recommendation, as well as evidence and testimony presented, and approve, conditionally approve or deny the request.
3. **Approval**: Please see **UDO §2.18.4(I) Effect of Approval**.



Planned Development District Conceptual Development Plan Application

Fee: \$1,800.00

Date Received: _____

Case No.: PD-____-____

Project Information:

Project Name: Waterworks

Physical address: 1605 Central Drive

PIN: 858300245709

Parcel ID: 00039185

Site Size: 28.8 Acres

Zoning: PD

Applicant:

Name(s): Andy Bleggi, PTAH Corporation

Email: andybleggi@gmail.com

Phone: 910-639-1985

Mailing Address: 730 South Bennett Street, Southern Pines, NC 28387

Authorized Agent, if different from Applicant:

Name(s): Kevin Lindsay, PE, Crawford Design Company

Email: kevinlindsay@crowforddsn.com

Phone: 910-920-7661

Mailing Address: 230 West Pennsylvania Ave., Suite C, Southern Pines, NC 28387

Legal Property Owner(s), if different from Applicant:

Name(s): _____

Email: _____

Phone: _____

Mailing Address: _____

8-27-21

TO THE TOWN OF SOUTHERN PINES PLANNING BOARD AND TOWN COUNCIL:

I, the undersigned, do hereby make application to and petition the Planning Board and Town Council for approval of a Planned Development District – Conceptual Development Plan as required by the Town of Southern Pines Zoning Ordinance. The following information is submitted in support of this application:

The property which is the subject of this application is located on the East side of Central Dr./NC 22 (St./Ave.), between Warrior Woods Rd (St./Ave.) and Aiken Rd (St./Ave.). The property has a frontage of 970 feet and a depth of 1,540 feet.

The request is based upon **Section 2.18** of the **Town of Southern Pines Unified Development Ordinance**. The proposed use of the property is as follows:

Office, Commercial, Retail, Residential

Date:

11-11-2021


Applicant

PLANNING DEPARTMENT
TOWN OF SOUTHERN PINES
plan@southernpines.net (910) 692-4003 www.southernpines.net

8-27-21

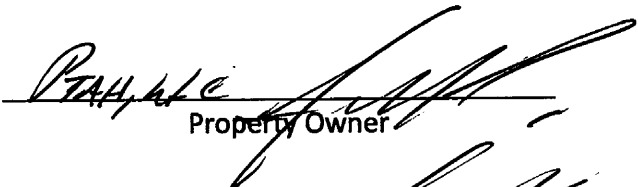
APPOINTMENT OF AGENT

The undersigned owner(s), Andy Bleggi, hereby appoint(s) Kevin Lindsay, PE as the exclusive agent for the purpose of making an application to the Town of Southern Pines for the approval of the Planned Development District – Conceptual Development Plan described in the attached application. The owner(s) hereby agree(s) that this agent has the authority to act for and on behalf of the owner(s) as follows:

1. to submit an application and required supplemental materials;
2. to appear at public meetings and give representation and comments on behalf of the owner(s);
3. to accept conditions or recommendations made by the Town of Southern Pines Planning Board and Town Council for the approval of a Planned Development District – Conceptual Development Plan; and
4. to act on behalf of the property owner(s) without limitations with regard to any and all things directly or indirectly connected with or arising out of any application for a Planned Development District -Conceptual Development Plan under the Southern Pines Unified Development Ordinance.

This Appointment of Agent shall remain in effect until final resolution of the attached application.

Signed this 11 day of 11, 2021.



Property Owner



Property Owner



Agent

Exhibit II Site Location Map



SITE LOCATION MAP (not to scale)

EXHIBIT II

Exhibit III
Neighborhood Meeting Sign-In Sheet and Report

Date: November 29, 2021

Location: 795 SW Broad St, Southern Pines, NC 28387-Sly Fox Meeting Room

Submitted by: Andy Bleggi, Member Manager, PTAH, LLC

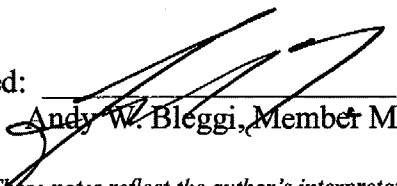
Attendees: Andy Bleggi, Member Manager PTAH, LLC
 Kevin Lindsay, Crawford Design, LLC
 Cheryl Melhorn, Project Manager PTAH, LLC
 (See Attached Sign-In Sheet for "Neighborhood" Attendees.)

A formal Neighborhood Meet was held on Monday November 29, 2021 from 1:30 pm to 2:30 pm at the Sly Fox Meeting room. This meeting is required by the Town of Southern Pines for the Conceptual Development Plan (CDP) application for the PD District. The land owner and project team held this meeting with the adjoining property owners to present the updates on the project and solicit feedback on the CDP for the project. All adjoin parcel owners within 20 of the property were notified by letter. (See attached copy of letter) and a sign was also posted at the property site to notify of the meeting.

The meeting was informal in nature. Drawings of the CDP and PDP were providing for review and any questions were answered by the development team and owner.

The following questions where addressed:

- What is the zoning? It is PUD and it is still a PUD,
- Why are you going through the process again? The Town of Southern Pines Plan Department review staff felt we made significant enough changes to the original PUD that it would be best to go through the process again.

Signed: 
 Andy W. Bleggi, Member Manager, PTAH, LLC

Note: These notes reflect the author's interpretation of the events during the referenced meeting. Any additions or modifications required should be submitted to the author writing.

**Waterworks Project-1605 Central Drive-Southern Pines-
Neighborhood Meeting Sign-In Sheet November 29, 2021**

Name	Address	E-mail
Andy Bleggi	720 S. Bennett St. Southern Pines, NC	andybleggi@gmail.com
KEVIN LINDSAY	130 EVERGREEN CT PINETHRIST, NC 28374	Kevinlindsay@crawfordlaw.com





WATERWORKS COMMUNITY

Informational Meeting about Waterworks
Development & Opportunity for Questions

Where: Sly Fox, 795 SW Broad Street

When: Monday, Nov. 29th at 1:30pm

Questions: Crawford Designs, Kevin Lindsay
910-920-7661 kevinlindsay@crawforddsn.com

Exhibit IV
Existing Conditions
Aerial Imagry

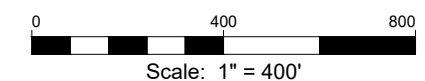
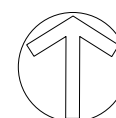
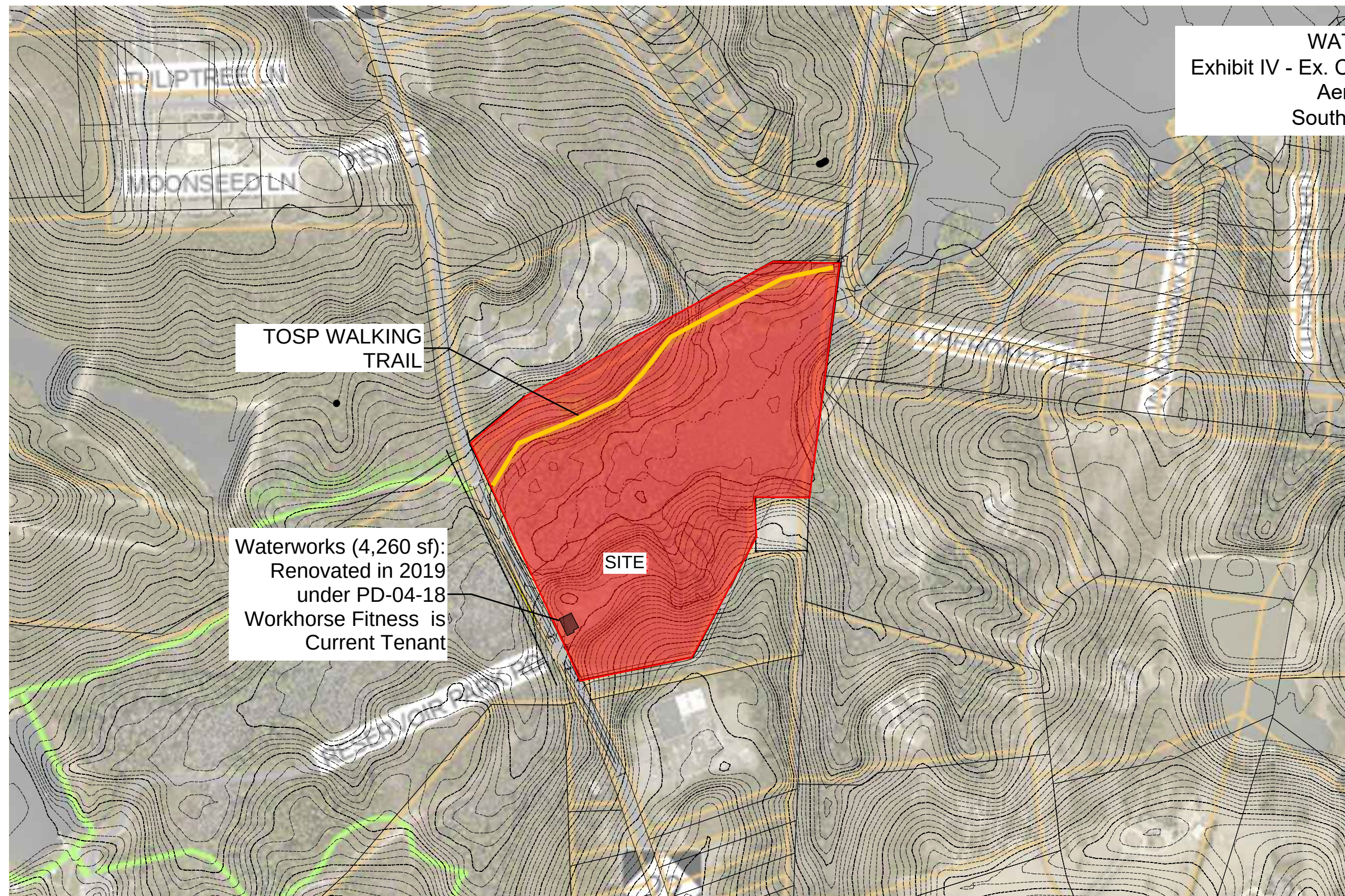


Exhibit V
Existing Conditions
Property Information

WATERWORKS
Exhibit V - Ex. Conditions
Property Information
Southern Pines, NC

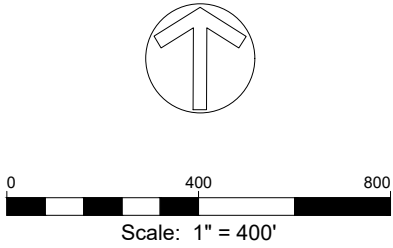
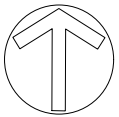


Exhibit VI
Adjacent Property Owners



WATERWORKS
Exhibit VI - Adjacent Property Owners
Southern Pines, NC



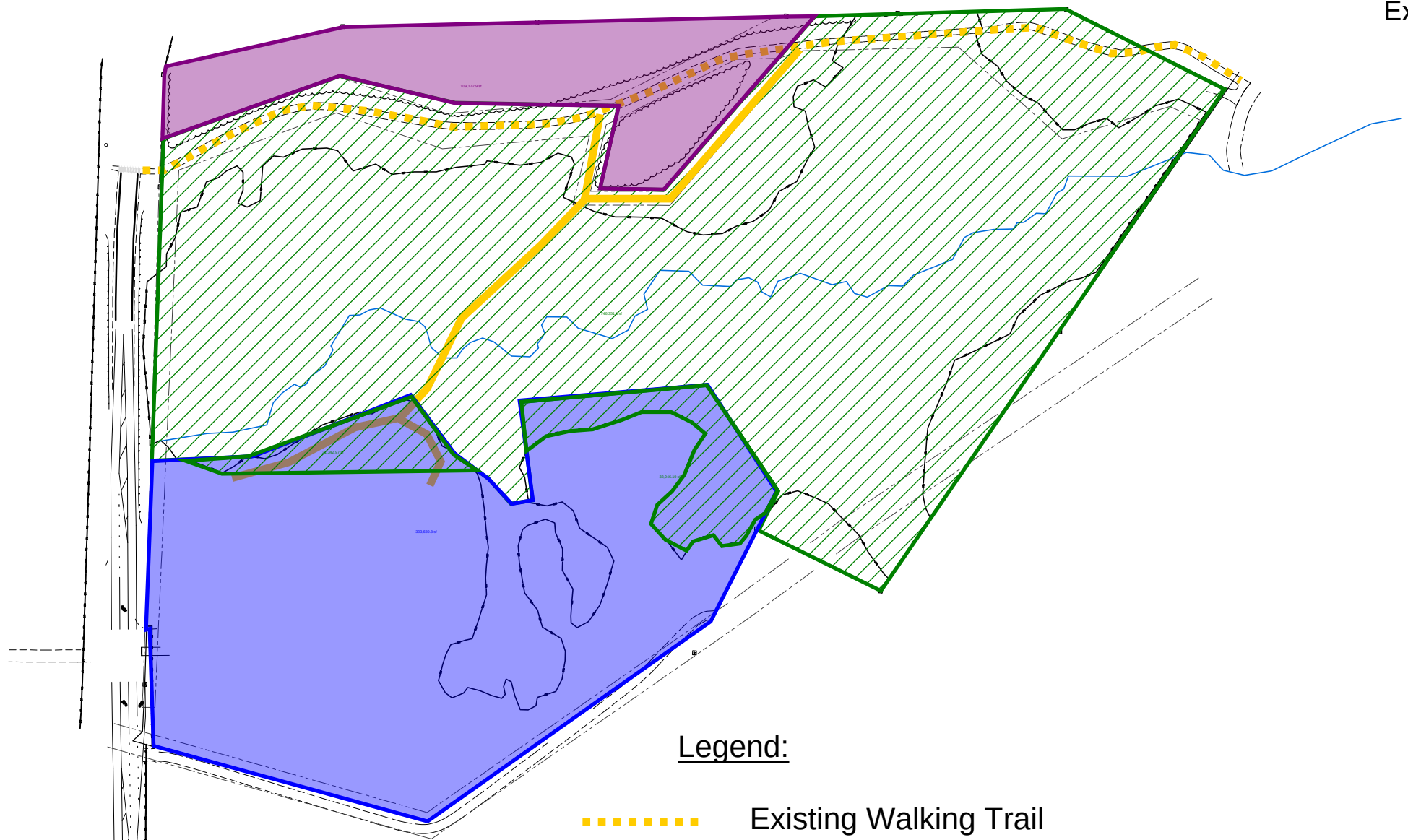
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ADJACENT PARCEL OWNERS

NAME	NAME (2)	ADDRESS	CITY	ST	ZIP	PARCEL ID	REF
HOI LIMITED PARTNERSHIP OF SOUTHERN PINES		PO BOX 26405	GREENSBORO	NC	27404	39144	1
PINEHURST AREA REALTY, INC		POBOX 1511	PINEHURST	NC	28370	37593	2
PINEHURST AREA REALTY, INC		POBOX 1511	PINEHURST	NC	28370	37664	3
PINEHURST AREA REALTY, INC		POBOX 1511	PINEHURST	NC	28370	37604	4
CHAMBERLAIN, ROBERT JOSEPH JR	CHAMBERLAIN, KIMBERLY K	405 Pine Barrens Vista	Southern Pines	NC	28387	20020232	5
MASON, DUSTINA TRUSTEE		375 Pine Barrens Vista	Southern Pines	NC	28387	20020233	6
DIXIE PIPELINE COMPANY	ATTN: AD VALOREM TAX DEPT	PO BOX 4018	HOUSTON	TX	77210	32927	7
TRIE CASSYN GROUP, LLC		1485 Central Dr	Southern Pines	NC	28387	20020309	8
SOUTHERN PINES, TOWN OF		PO BOX 870	Southern Pines	NC	28388	39729	9
MOORE COUNTY COMMUNITY COLLEGE	BOARD OF TRUSTEES	2200 Airport Rd.	PINEHURST	NC	28374	991683	10

Exhibit VII Land Use Plan

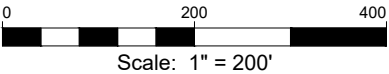
WATERWORKS
Exhibit VII - Land Use Plan
Southern Pines, NC



Open Space:
20% of 28.8 ac Required
= 5.76 acres
17.1 acres of open space
outside planned phases.
Additional 1.25 acres
planned withing phases 1
& 3. 18.4 ac total (64%)

Legend:

- Existing Walking Trail
- Proposed Walking Trail
- Mixed Use ~9.2 acres
- Single Family Residential ~ 2.5 acres
- Open Space / Conservation ~17.1 acres



Land Use	LBCS Code	Description	Allowed
RESIDENCE OR ACCOMMODATION FUNCTIONS	1000	Homes, apartments, housing for the elderly, and hotels	
Private Dwelling	1100	Single-Family homes, doubles, apartments, Condominiums, mobile homes, Townhouses; excludes households with special provisions	
Single-Family	1110		
Single-Family detached	1111	Typical Single-Family Dwelling	X
Single-Family attached (Townhomes) (Ord. # 1716)	1112	Each Dwelling Unit on a separate Lot; fire wall may protrude from roof or roofs may be staggered	X
Class A Single-Family manufactured home	1113	modular homes and other structures that comply with the NC Residential Building Code as amended	
Class B Single-Family manufactured home	1114	manufactured homes that comply with HUD standards and other local criteria	
Class C Single-Family manufactured home	1115	manufactured homes that comply with HUD standards and do not meet the standards for Class A or Class B manufactured homes	
Manufactured Home Park	1116	a group of three or more spaces for sale or lease that are designed to accommodate manufactured homes	
Two-Family (double or Duplex)	1120		X
Accessory Dwelling	S1130		
Multi-Family	S1200	Three or more Dwelling Units	
Multi-Family	1151	Three or more Dwelling Units	X
GENERAL SALES OR SERVICES	2000	Comprises the vast majority of establishments associated with commercial land use	
Retail Sales or Service and Repair	2100	Establishments with displays of merchandise sold to the general public and other businesses, or after-sales services such as repair	
Durable consumer goods sales and service	2130	Wide range of product lines such as apparel, appliances, hardware, jewelry, etc.	
computer and software	2131	Computers and prepackaged software without other electronic equipment, including repair, support, and training	X
camera and photographic	2132	Primarily retail cameras and photographic	X
camera and photographic supplies	2132	Primarily retail cameras and photographic supplies or retail with repair and film developing	X
clothing, jewelry, luggage, shoes, clocks, sewing	2133	Including shoe repair and tailoring	X
sporting goods, toy and hobby, and musical instruments	2134		X
books, magazines, music, videos, CDs, stationery, greeting cards, seasonal decorations, school and office supplies, etc,	2135		X
Consumer goods, other	2140	Establishments that retail merchandise (except groceries or health items) not included in preceding codes	X
florist	2141		X
art dealer, supplies, sales and service	2142	Including frame shops	X
tobacco or tobacconist establishment	2143		X

Land Use	LBCS Code	Description	Allowed
mail order or direct selling establishment	2144	Retailing other than in stores	X
antique shop, flea market, thrift stores	2145		
Grocery, food, beverage, dairy	2150	Retail food and beverage merchandise from fixed point-of-sale locations	X
grocery store, supermarket, or bakery	2151	Included are meat and seafood markets and delicatessens	X
convenience store	2152	Excludes those with fuel pumps	X
specialty food store	2153	Retail specialty food items such as coffee and gourmet foods	X
fruit and vegetable store	2154		X
beer, wine, and liquor store	2155		X
Health and personal care	2160	Retail health and personal care merchandise from fixed point-of-sale locations	X
pharmacy or drug store	2161	Primarily retail prescription or nonprescription drugs	X
cosmetic and beauty supplies and personal grooming products	2162	Primarily retail cosmetics, perfumes, toiletries,	X
optical and contact lenses	2163	Retail prescription or nonprescription eyeglasses	X
Markets for farm produce or crafts	2199		
Finance and Insurance	2200	Use this category when difficult to differentiate an establishment into a subcategory	X
Bank, credit union, or savings institution	2210	Central banking functions	
Credit and finance establishment	2220	Credit card, sales financing, unsecured consumer lending, real estate credit, international trade financing	X
Investment banking, securities, and brokerages	2230	Securities underwriting, brokering, exchange services, managing portfolios	X
Insurance-related establishment	2240	Insurance underwriting, selling insurance	X
Fund, trust, or other financial establishment	2250	Pool assets on behalf of shareholders or beneficiaries	X
Pawn shop	2260		
Real Estate, and Rental and Leasing	2300	Rent or lease assets	
Real estate services	2310	Lease real estate (except buildings) such as manufactured home sites and vacant Lots; includes real estate appraisers	X
Property management services	2320	Manage real property for others	X
commercial property-related, mini- or self-storage	2321	Lease buildings not used as residences; includes mini-warehouses and self-storage Dwelling Units	
rental housing-related	2322	Lease buildings used as residences	
Rental and leasing	2330	Rent tangible goods such as consumer goods and mechanical equipment to customers; excludes establishment primarily renting equipment with operators	

Land Use	LBCS Code	Description	Allowed
Business, Professional, Scientific, and Technical	2400	Perform professional, scientific, and technical services	X
Professional services	2410	Services provided depend on worker skills and knowledge rather than equipment	X
legal services	2411	Title abstract, lawyers, notaries	X
accounting, tax, bookkeeping, payroll services	2412		X
architectural, engineering, surveying and related services	2413	Architectural, engineering, building inspection, surveying and mapping, and laboratory testing (except medical, veterinary, or auto emission)	X
graphic, industrial, interior design services	2414	Interior, industrial, and graphic design	X
consulting services (management, environmental technical)	2415	Advise and assist businesses on management, scientific, and technological issues	X
scientific research and Development services	2416	Conduct research or analyze in the physical, engineering, cognitive, or life sciences	X
advertising, media, and photography services	2417	Advertising, public relations, media buying agencies, direct mail advertisers, market research, translation providers	X
veterinary services	2418	Veterinary medicine, testing services for veterinary practitioners	X
Administrative services	2420	Typical office establishments in any business area. Use as a default category for most office buildings (nursing staffing)	X
office administrative services	2421	Office administration such as billing, record keeping, personnel, organizational planning	X
facilities support services	2422	Provide operating staff for support services within a client's facilities, including janitorial, security, laundry services, etc.	X
employment agency	2423	Provide employee placement, temporary help	
copy center, private mail center, other business support services	2424	Provide document preparation, telephone answering, telemarketing, court reporting, steno typing, FAX, etc.	X
collection agency	2425	Collect payments, compile credit information, repossess tangible assets	X
Travel arrangement and reservation services	2430	Promote or sell travel, includes convention and visitors' bureaus	X
Investigation and security services	2440	Provide detective, guard and patrol services, picking up and delivery of money, selling of security systems, remote monitoring of security systems	X
Services to buildings and Dwellings	2450	Provide pest control, janitorial services, landscaping, carpet cleaning, etc.	X
extermination and pest control	2451		
janitorial	2452		
landscaping	2453		
carpet and upholstery cleaning	2454		
packing, crating, and convention and trade show	2455		
Food Services	2500	Prepare meals, snacks, and beverages	X
Full-service restaurant	2510	Provide services to patrons who order and are served while seated or in combination with takeout	X

Land Use	LBCS Code	Description	Allowed
Cafeteria or limited service restaurant	2520	Provide services to patrons who order or select items and pay before eating; may be consumed on premises, taken out, or delivered	X
drive-through restaurants	2521	Provides drive-in, drive-through or drive-up service to patrons; includes most fast-food restaurants	
Snack or nonalcoholic bar	2530	Prepare and serve specialty snacks, such as ice cream, frozen yogurt, cookies, coffee, juices for consumption on or near the premises, snowball stand	
Bar or drinking place	2540	Bars, taverns, nightclubs primarily serving alcoholic beverages; may provide limited food and entertainment	X
Mobile food services	2550	Prepare and serve meals and snacks for immediate consumption from motorized vehicles	X
Caterer	2560	Provide single event-based food services, including banquet halls with catering for wedding receptions, etc.	X
Food service contractor	2570	Provide food services at institutional, governmental, commercial, or industrial locations based on contracts	X
Vending machine operator	2580	Retail merchandise through vending machines that they service	X
Personal Services	2600	Catch-all category for personal service establishments not classified elsewhere such as bail bonding, wedding planning, psychic services, etc.	
Personal care	2610	Hair, nail, and skin care and related personal care	
hair, nail, and cosmetic skin care	2611	Barber or beauty shop	
dieting and weight reducing	2612		
tanning salon	2614		
electrolysis, ear piercing, and other personal care services	2616		
Dry cleaning and laundry	2620		
coin-operated laundromat	2621		
dry cleaning and laundry	2622		
linen and uniform supply	2623		
Photofinishing	2630	Primarily engaged in developing film or making slides, etc.	
Parking Lot and parking garage	2640		
Special Services	2650		
massage therapist	2651		
tattoo parlor	2652		
adult establishment	2653		
adult cabaret	2654		

Land Use	LBCS Code	Description	Allowed
ARTS, ENTERTAINMENT, AND RECREATION	5000		
Performing Arts or Supporting Establishments	5100	Produce or organize and promote live presentations, excludes nightclubs	X
Theater, dance or music establishment	5110	Companies, groups, or theaters that produce theatrical presentations, dance, dinner theaters, and live musical entertainment	X
Sports team or club	5120	Professional or semi-professional sports teams or clubs participating in live sporting events	
Racetrack establishment	5130	Operate racetracks for events	
horse track	5131		
dog track	5132		
automotive track	5133		
Promoter of sports, performing arts, similar events	5140	Organize, promote, and manage performances, events	X
Agent for management services	5150	Agents representing artists, athletes, entertainers, etc.	X
Independent artist, writer, or performer	5160	Independent individuals engaged in art, productions	X
Museums and Other Special Purpose Recreational Institutions	5200	Public and private museums, historical sites, zoos, and similar establishments	

Land Use	LBCS Code	Description	Allowed
Museum	5210		X
Historical or archeological institution	5220	Archeological sites, battlefields	
Zoos, botanical gardens, arboreta	5230		
Amusement, Sports, or Recreation Establishment	5300	Operate facilities offering activities and provide services	X
Amusement or theme park establishment	5310	Operate a variety of attractions such as mechanical rides, water rides, games	
Games arcade establishment	5320	Operate arcades and parlors, except gambling, billiard, or pool	
Casino or gambling establishment	5330	Except casino hotels, includes riverboat casinos, bingo halls, and video gaming terminals, or provide services such as Lotteries or off-track betting	
Miniature golf establishment	5340		
Golf course	5350		
public golf course	5351	may include country club	
private golf course	5352	may include country club	
golf course resort	5353	may include club house, guest accommodations and/or residences that may be individually owned, but fall within the management of the resort	
Marina or yachting club facility operators	5360	Operate docking and storage facilities for pleasure craft owners	
Fitness, recreational sports, gym, athletic club, multipurpose facility	5370	Includes archery and shooting ranges, horseback riding, ball parks and courts, fitness clubs, and more	X
public facilities	5371		X
private facilities	5372		X
Horse Riding Stables	5373	not constructed pursuant to a residential Development approval	X
Bowling, billiards, pool	5380		
Skating rink, roller skating	5390		

Exhibit VIII

Conceptual Master Plan & Phasing

WATERWORKS
Exhibit VIII -
Conceptual Master Plan & Phasing
Southern Pines, NC

Phase	Size (acres)	Office (sf)	Commercial/ Retail (sf)	Residential			Open Space
				Single Family Detached	Single Family Attached	Multi- Family	
1	3.6	40,000	40,000	0	0	0	0.49
2	2.3	40,000	40,000	20	40	30	0
3	3.3	40,000	40,000	20	40	30	0.76
4	2.5	-	-	3	0	0	0
Open Space	17.1	-	-	0	0	0	17.1
Totals*	28.8	80,000	80,000	30	80	30	18.35

*Note: Square footages are maximums--sum of phases may exceed maximum for all phases.

Phase 4: Single Family (2.5 ac).
3 single family detached maximum.

Phase 1: Mixed Use (~3.6 acres)

1B. New Workhorse Fitness Facility
(Current Waterworks tenant) (~9,600 sf)

Open space
w/SCM ~.49 acres

1A. Corporate Headquarters.
Integrates Existing Waterworks
Building Into Corporate
Headquarters (~33,000 sf total)

Existing Waterworks Building
(4,260 sf) in use by Workhorse
Fitness

Legend:

- Stormwater Control Measure (SCM)
- Existing Walking Trail
- Proposed Walking Trail
- Phase Line
- Traffic Circulation
- Open Space

Open Space Undeveloped ~ 17.1 ac)

Phase 3 Mixed Use (~3.3 ac):
Either single family (attached or detached)
multi-family, or other commercial uses.
Town homes shown for illustrative example
only and not intended to limit or specify
future plans. (.76 ac Open Space)

Phase 2 Mixed Use (~2.3 ac):
2A,B,C. Possible commercial buildings w/ possible loft
apartments. Buildings shown for illustrative example
only and not intended to limit or specify future plans.
Could also be town homes.

Emergency 2nd
Access Point

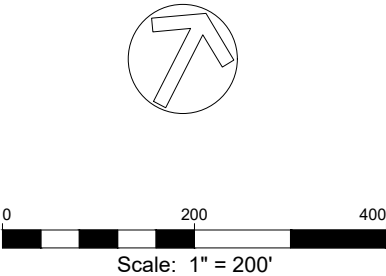


Exhibit IX

Conceptual Transportation and Drainage Plan

WATERWORKS
Exhibit IX -
Conceptual Transportation &
Drainage Plan
Southern Pines, NC

NC 22 Improvements:

Right Turn Lane into
Waterworks
Left Turn Lane into
Waterworks

Waterworks Entrance:

Right Turn Lane out
Left/Straight to Reservoir Park

Emergency 2nd
Access Point

Legend:

-  Stormwater Control Measure (SCM)
-  Existing Walking Trail
-  Proposed Walking Trail
-  Phase Line
-  Traffic Circulation.
Private drives or Vehicle Use Areas (VUA)

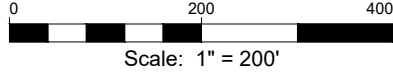
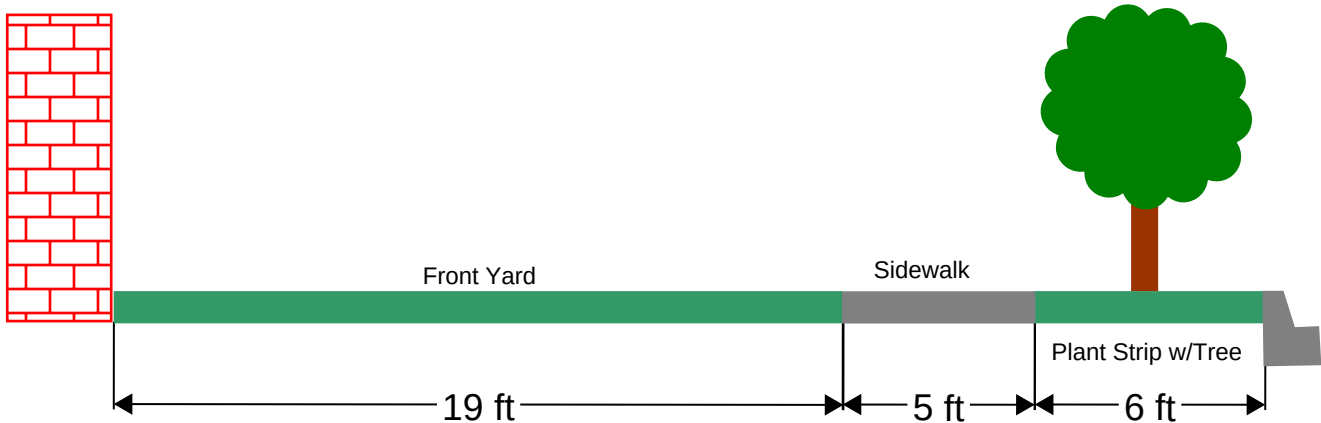


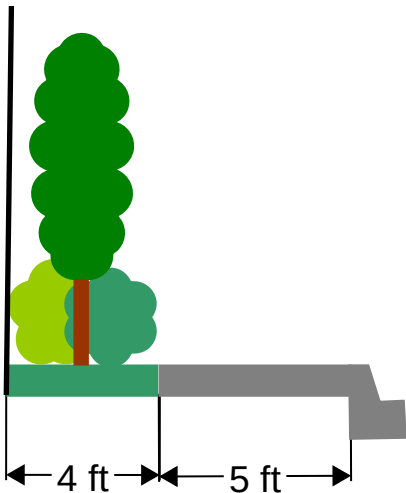
Exhibit X

Streets and Sidewalk Standards

Waterworks --28.79 Acres on Central Drive/NC 22
Southern Pines, NC 28387

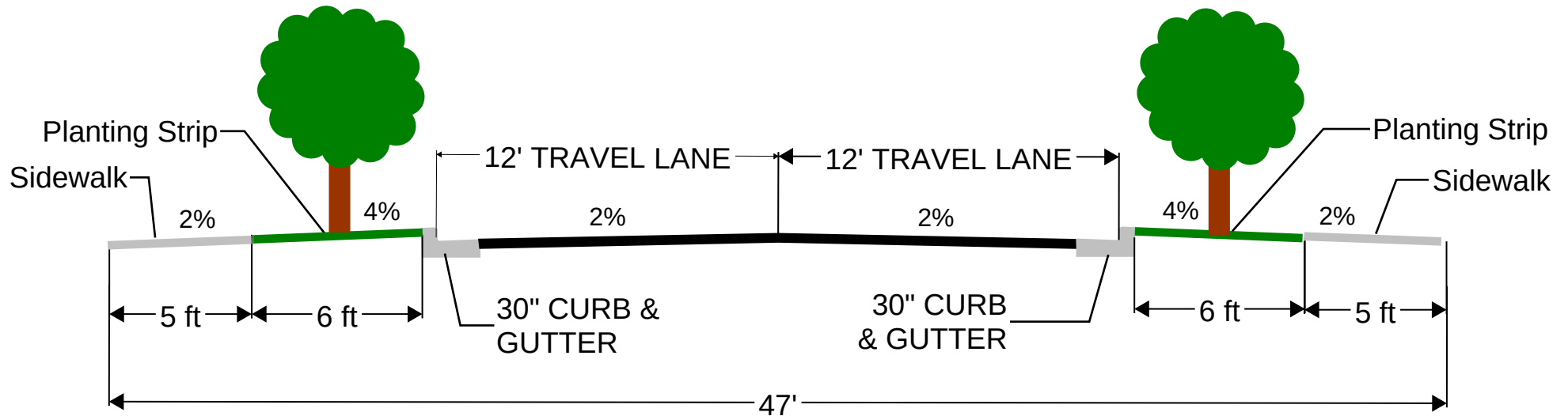


Single Family Detached & Townhome
Typical width shown--exact widths may vary



Office, Retail, Commercial, & Mixed Use
Typical width shown--exact widths may vary

Waterworks --28.79 Acres on Central Drive/NC 22
Southern Pines, NC 28387

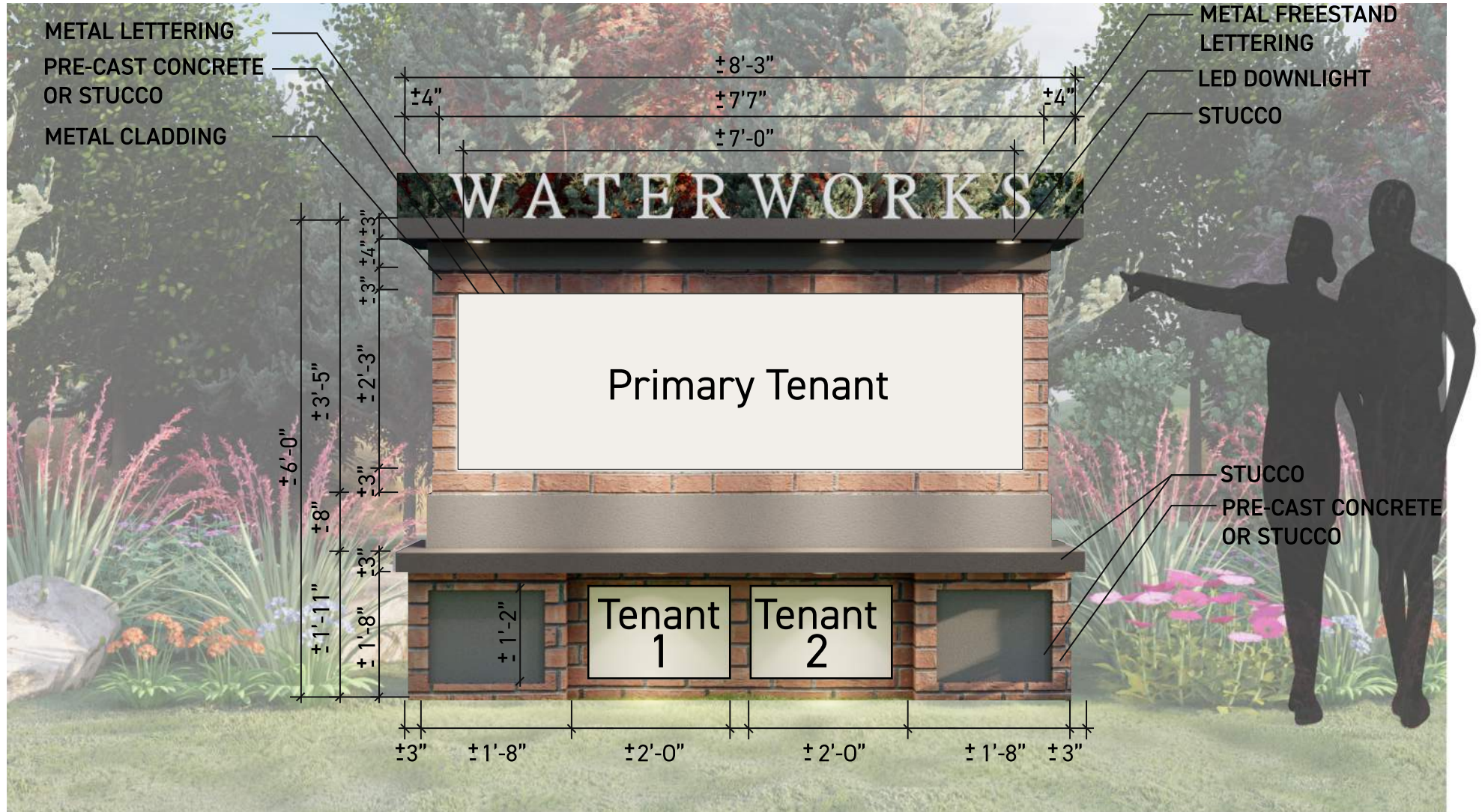


Private Drives
Typical width shown--exact widths may vary

Exhibit XI Signage Standards

Exhibit XI

BACKGROUND IS REPRESENTATIONAL



Landmark Sign
NOT TO SCALE

ANCHOR TENANT TOTAL SIGN AREA: ±16 SF
TENANT 1 TOTAL SIGN AREA: ±2 SF
TENANT 2 TOTAL SIGN AREA: ±2 SF

WATERWORKS

Exhibit XI - Signage Standards | Elevations
Souther Pines, North Carolina

WATERWORKS

Primary Tenant

Tenant 1

Tenant 2

Exhibit XII
Proof of Ownership

For Registration Register of Deeds
Judy D. Martin

Moore County, NC

Electronically Recorded

March 12, 2019 4:45:55 PM

Book: 5099 Page: 508 - 509 #Pages: 2

Fee: \$26.00 NC Rev Stamp: \$0.00

Instrument # 2019003103

Mail after recording to: Richard Yelverton, Van Camp, Meacham and Newman
This instrument was prepared by: Emily A. Tobias, Gill & Tobias, LLP
Brief description for the Index: Water Works Plant, 1605 Central Drive, Southern Pines, NC
Tax Stamps: \$ - (exempt per NCGS § 105-228.28)

**NORTH CAROLINA
SPECIAL WARRANTY DEED**
(No Title Search by Drafting Attorney)

THIS DEED made this the 5th day of March, 2019 by and between:

Grantor:
Town of Southern Pines
A NC Municipal corporation
P.O. Box 870
Southern Pines, NC 28388

Grantee:
PTAH, LLC
275 SW Broad Street
Southern Pines NC 28387

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

The Grantor, for valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of Southern Pines, McNeill Township, Moore County, North Carolina and more particularly described as follows:

Being all of that 28.8 acres, more or less, described in Plat Cabinet 18, Slide 25 Moore County Registry.

The property hereinabove described was acquired by Grantor by instruments recorded in Book 349, Page 474 and Book 2011, Page 349 Moore County Registry.

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee that Grantor has done nothing to impair such title as Grantor received, and Grantor will warrant and defend the title against the lawful claims of all persons claiming by, under or through Grantor, other than the following exceptions:

Title to the property hereinabove described is subject to the following exceptions:
(i) the lien for ad valorem taxes or other assessments for the current year; (ii) utility easements of record; and (iii) applicable zoning and municipal ordinances.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be signed in its corporate name by its Mayor, attested to by its Town Clerk, and its seal to be hereunto affixed, the day and year first above written.

Town of Southern Pines,
a North Carolina municipality

ATTEST:

By: *W. David McNeill* (Seal)
W. David McNeill, Mayor

Peggy Knight Smith (Seal)
Peggy Knight Smith, Town Clerk

(town seal)

STATE OF NORTH CAROLINA
COUNTY OF MOORE

I, a Notary Public of the County and State aforesaid, certify that Peggy Knight Smith personally came before me this day and acknowledged that she is Town Clerk of Southern Pines and that by authority duly given and as the act of the Town of Southern Pines, the foregoing instrument was signed in its name by its Mayor, sealed with its town seal and attested by him as its Town Clerk.

Witness my hand and official stamp or seal, this 12 day of March, 2019.

My commission expires:

May 10, 2020

Elizabeth F. Robertson
Notary Public

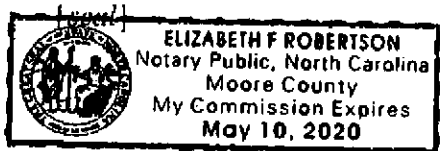


Exhibit XIII

List of Deviations

1. Request

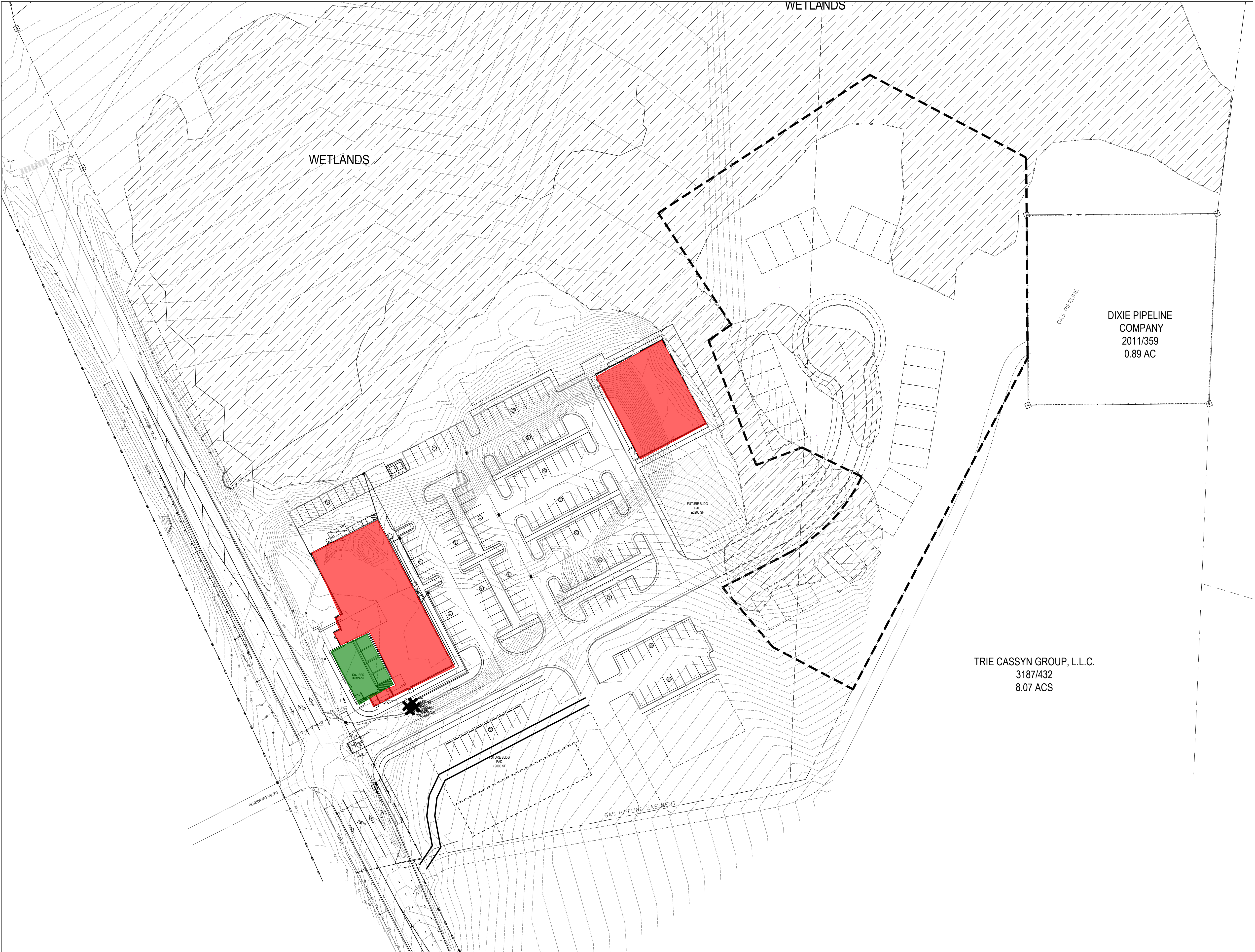
Exhibit XIV

TIA

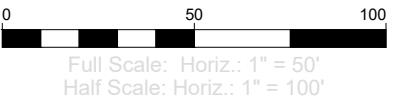


- Renovated Waterwoks
- Planned for next phase: Corporate headquarters and new, larger fitness facility

All other items shown are conceptual and intended to show an example of what could be done. Actual future phases may be significantly different



SITE PLAN



151 PARKING SPACES

2.18.4 (H) Conceptual Development Plan Criteria

(1) The PDD satisfies the criteria for a zoning map amendment established in this chapter:

A. **Consistency:** This area was designated as “Facilities Resources Recreation” in the most recent land use plan. However as part of PD-03-07, approved 4-27-18:

“It is therefore in the best interest of the public to declare the proposed zoning amendment and amendment to the CLRP Future Land Use Map from Park/Opens Space to **Traditional Mixed Use** in the area proposed for development because of changes in conditions in the area. The conditions have changed because there is no longer a need to use the property for Town storage and the property is in a state of increasing duress.” This request will keep the area **Traditional Mixed Use**.

B. **Adverse Impacts on Neighboring Lands:** Phases 1-3 mixed use will be separated from adjacent properties by a hill and undeveloped wetlands. The entrance (other than a second emergency entrance) will be aligned with the entrance to Reservoir Park and turn lanes to both Waterworks and the park will be added. This will be an improvement to the current entrances to waterworks and the park.

C. **Suitability as Presently Zoned:** The tract is currently zoned PDD and will remain PDD. The rezoning is needed due to changes in the Conceptual Development Plan from the previous rezoning to PDD. The existing waterworks building has been renovated and turned into a fitness facility--as planned in the first rezoning. In the first rezoning it was envisioned that several mixed commercial and residential buildings would be added next. Instead, a corporate headquarters will be added to the site and attached to the waterworks building. The current fitness facility will be relocated to a larger new building in the back of phase 1. Phases 2 & 3 are substantially the same as the first rezoning—where various single family attached and detached, multi-family, and commercial options are envisioned.

D. **Health, Safety, and Welfare:** The site will remain mostly (65%) undeveloped wetlands and open space—just as in the previous PDD rezoning. The added turn lanes on NC 22 will make it safer to turn into both Waterworks and Reservoir Park than the current condition.

E. **Public Policy:** The previous rezoning and land use plan amendment were justified based on economic development. So far, a crumbling water treatment building has been transformed into a vibrant fitness facility. The proposed corporate headquarters, larger fitness facility, and other potential commercial and residential development will provide even more jobs and housing for the community than envisioned in the previously approved CDP.

F. **Size of Tract:** The 28.8 acre tract is suitable in size for rezoning.

G. **Other Factors:** The applicant has expended considerable time, effort, and money to renovate the old treatment plant and to attract a corporate headquarters to the project.

H. **Applicant Representations:** Even if for some unforeseeable reason, the planned tenant does not occupy the planned building either before or after it is built, the proposed CDP provides for the development of mixed use facilities as envisioned in the previously approved CDP—just with modifications to proposed layout and phasing.

(2) **The Conceptual Development Plan represents an overall Development Pattern that is consistent with the goals and policies of the Comprehensive Plan, Official Zoning Map, Capital Improvements Program, and any other applicable planning documents adopted by the Town.** The proposed CDP is essentially a modified layout of the previously approved CDP. The overall goal of providing mixed use facilities while retaining a large amount of open space and wetlands is still achieved. While working with the corporation planning to move into the new building, it became clear that they preferred a more visible location than being in back of the current Waterworks. This current CDP will likely provide even more economic benefits to the Town than the previously approved CDP.

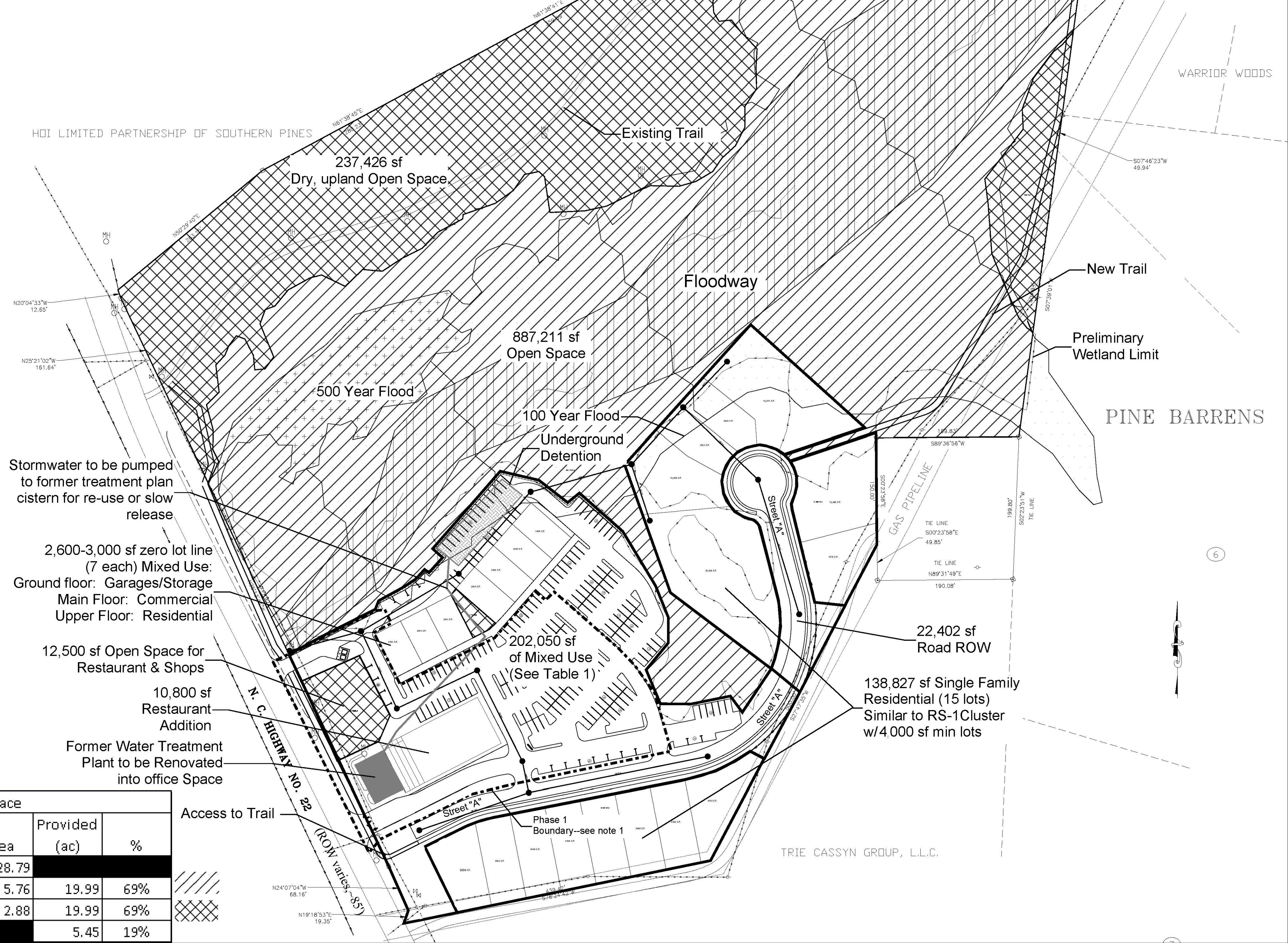
(3) **The proposed Development is appropriate for the area of the Town in which it is located.** The mixed use development with 64% remaining as open space fits in very well with other developments along NC 22 / Central Drive which include: single family detached and attached, multi-family, retail, restaurants, offices, industrial, institutional, and recreational.

(4) **The proposed Development will not generate the need for inefficient extensions and expansions of public facilities, utilities, and services.** Water, sewer, electricity, and natural gas are all available to the site without extensions (extensions will be needed within the site, but not to the site). The site is located on NC 22 and is opposite Reservoir Park. The double left turn lanes will be a significant improvement to the exiting interchange. The development will be connected to the Town's greenway system and preserve a significant wetlands area.



Table 1: Parking Table						
Phase	Category	Area/units	Req'd	Required	Total	Provided
1	Existing WTP renovated office space	4,200	1 /400 sf	11	84	120
	WTP Addition Restaurant	2,420	1/100 sf	24		
	WTP Addition Outdoor seating	1,000	1/100 sf	10		
	WTP Addition Office	4,000	1 /400 sf	10		
	WTP Addition Atrium & Storage	8,812	1 /300 sf	29		
2	Office/Retail	19,800	1/250	79	90	81
	Residential Units *	7	.5/unit	4		
	Single Family*	15	.5/unit	8		
Total:					174	201

*All residential units shall have a 2 car garage for owner--this is not shown in required or provided numbers



- Utilities:
1. Water: Town of Southern Pines
 2. Sanitary Sewer: Town of Southern Pines.
 3. Electricity by Duke Power
 4. Storm Sewer:
 - a. In WS-III Balance of Watershed
 - b. BUA = 220,000 sf (17.5% <24%)
 - c. 10-year Pre/post to be provided by detention of water and then reuse or slow release.

- Notes:
1. Phase 1 to include renovation of former Water Treatment Plant (WTP) into office Space, WTP Restaurant and Event Addition, and parking.
 2. Phase 2 to include:
 - a. 15 single family houses on min 4,000 sf lots
 - b. 7 mixed use buildings. Ground floor (2,600-3,000 sf) of garage & owner storage, Main floor (2,600-3,000 sf) commercial, and Upper floor (2,600-3,000 sf) residential.
 3. The development will consist of travel lanes for parking and private streets. It is not anticipated that any public streets will be dedicated to the Town of Southern Pines. Street "A" shall be constructed to SP UDO Minor Street standards.

Table 2. Open Space			
Description	Area	Provided (ac)	%
Water Plant Site	28.79		
Required 20% Open Space	5.76	19.99	69%
Required 10% Usable Open Space	2.88	19.99	69%
Dry Upland Open Space		5.45	19%



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PRELIMINARY
NOT FOR SALE OR CONSTRUCTION

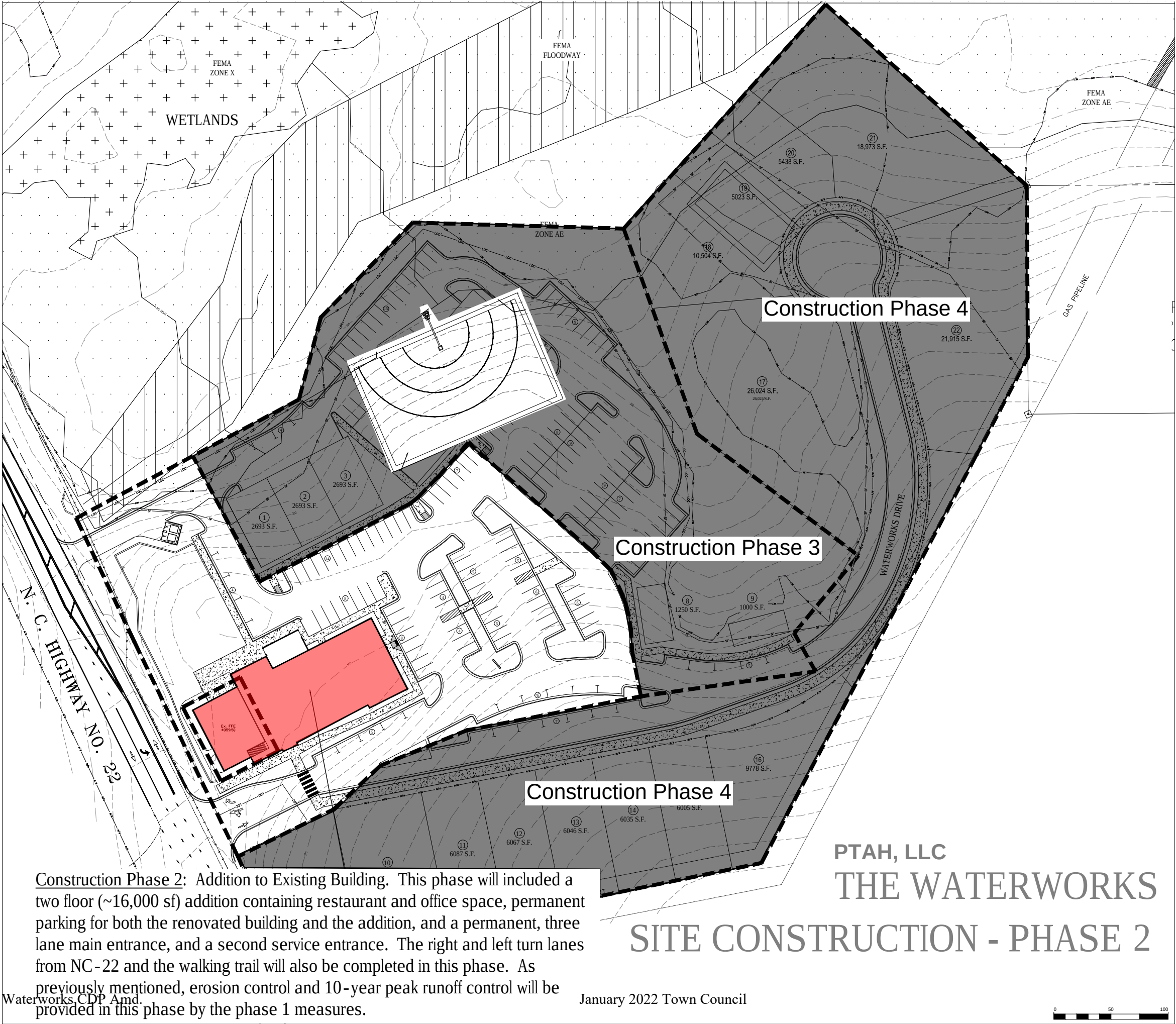
[PLAN PHASE]

REVISIONS

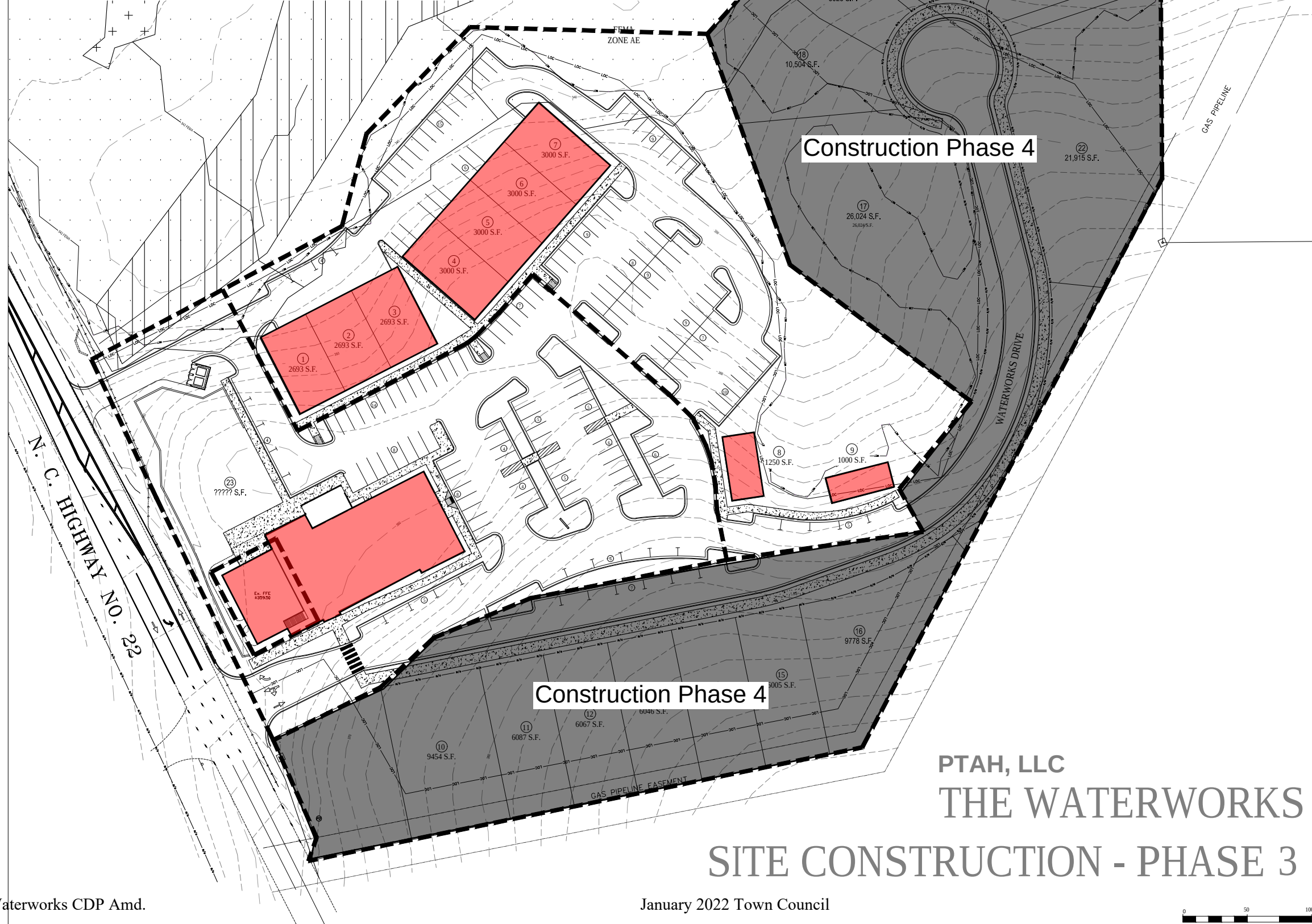
PTAH, LLC
THE WATERWORKS
SITE PLAN

PROJECT DETAILS
Project Manager: KSL
CAD Technician: RFN
Reviewed / Approved By:
Project Number: 17028
SCALE 0 50 100
Full Scale: Horiz.: 1" = 80'
Half Scale: Horiz.: 1" = 160'
ISSUE DATE MM/DD/YYYY
SHEET NUMBER



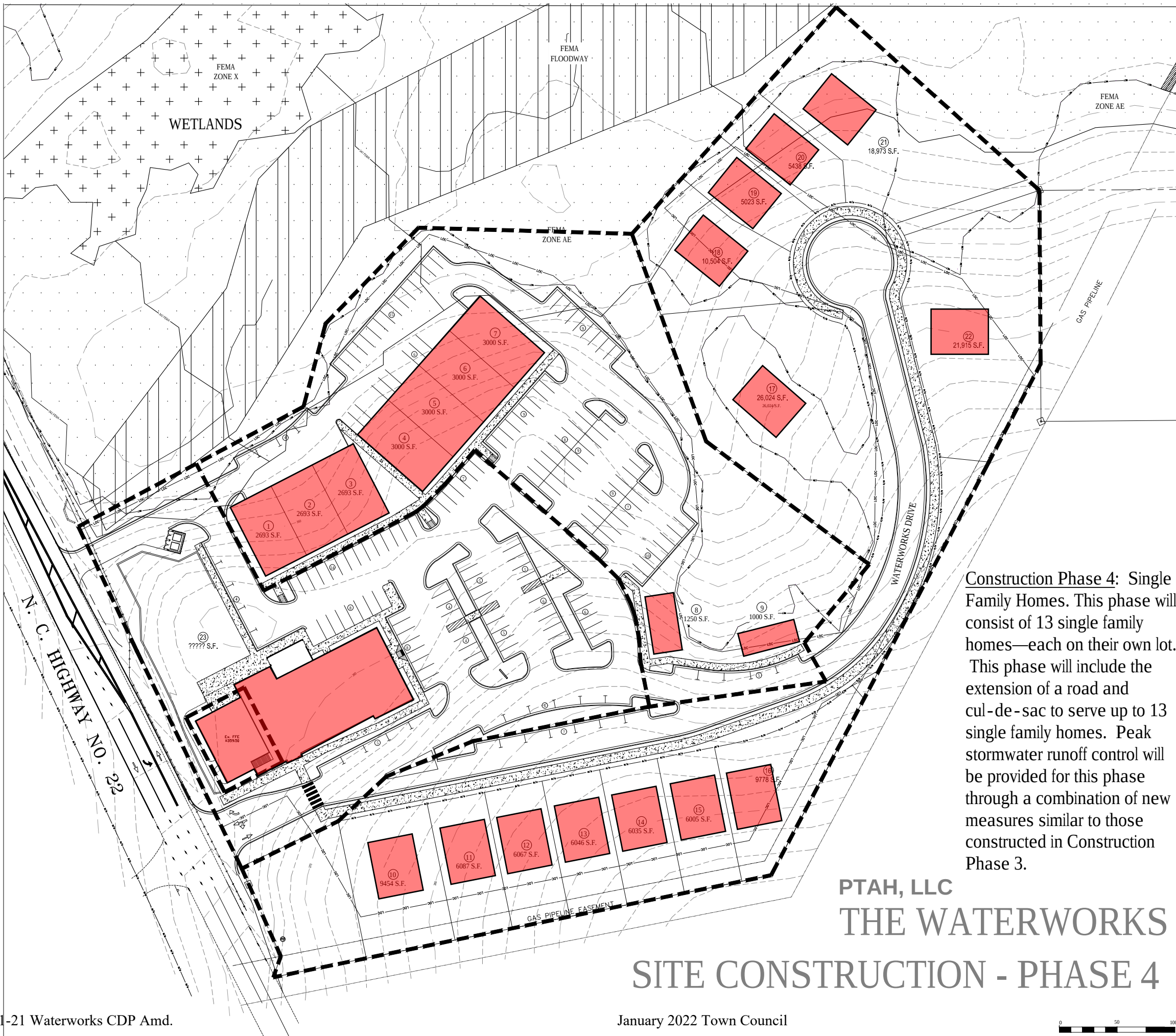


Construction Phase 3. Mixed Commercial and Residential Buildings & Smaller Commercial Buildings. This phase will include up to seven three story mixed used buildings and two smaller commercial buildings. The mixed use buildings will feature commercial/retail on the main floor, a rear facing garage and storage in the basement, and a residential third floor. It is planned for each of these units to be sold separately, although units could be combined. The smaller commercial units could be sold or retained by the developer. A significant aspect of this phase will be the conversion of stormwater peak reduction to a series of permanent Stormwater Control Measures (SCMs) possibly including bio-retention, underground infiltration, and water reuse.



LANDSCAPE
ARCHITECTURE
.....
ENGINEERING
.....
PLANNING

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Construction Phase 4: Single Family Homes. This phase will consist of 13 single family homes—each on their own lot. This phase will include the extension of a road and cul-de-sac to serve up to 13 single family homes. Peak stormwater runoff control will be provided for this phase through a combination of new measures similar to those constructed in Construction Phase 3.

PTAAH, LLC
THE WATERWORKS
SITE CONSTRUCTION - PHASE 4



LANDSCAPE
ARCHITECTURE
.....
ENGINEERING
.....
PLANNING

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TOWN OF SOUTHERN PINES COURTESY REVIEW

Case: PD-11-21 (Conceptual Plan for Mixed Use Development)

Location: 1605 Central Drive

PIN#: 858300245709

November 29, 2021

Following a review of the above referenced rezoning by the RLUAC staff and Board of Directors, and recognizing that our findings are non-binding on the Town of Southern Pines, the RLUAC Board of Directors finds that:

- While the subject property is located just outside of the designated 5-mile statutory notification and review area, there is a nexus with environmental compatibility within the area covered by the Fort Bragg Compatible Use Rating System.
- If the property was within the area covered by the Fort Bragg Compatible Use Rating System it would be identified as Important to Protect due to its location within a designated High Quality Waters drainage area (Mill Creek HQW Management Area).
- The property is located within an identified inactive red-cockaded woodpecker foraging area and in close proximity to several other identified active foraging areas.

Due to the proximity of the site to identified red-cockaded woodpecker foraging areas, RLUAC encourages the property owner / developer to have this property surveyed by personnel experienced in management and monitoring of the species prior to the removal of any mature pine trees. Please visit the following website for additional information on the appropriate protocols: https://www.fws.gov/ncsandhills/pine_tree_removal.html. The results of this survey should be sent to the US Fish and Wildlife Service Ecological Services office located in Raleigh, NC (attention John Hammond) for review.

RLUAC also encourages the Town of Southern Pines and the applicant / developer to take such measures as are feasible to limit the impact of stormwater runoff from the future development of the site on the watercourses that comprise the Mill Creek High Quality Waters Management Area. Maintaining the integrity of important environmental assets

contributes to the overall compatibility of our region with Fort Bragg's environmental protection mission, which goes hand-in-hand with its military training and operational missions. Beyond the potential environmental impact of the proposed development, the nature of the use proposed for the site does not present any additional compatibility concerns with regard to military training or operations.

Thank you for allowing RLUAC to review this case.

John K. McNeill, Chairman

Vagn K. Hansen II, AICP, Executive Director

**AN ORDINANCE AMENDING THE ZONING MAP
OF THE TOWN OF SOUTHERN PINES**

THAT WHEREAS, after notice being duly given according to law, a public hearing was held before the Town Council of Southern Pines, North Carolina, at its regular meeting held on January 11, 2022 at 6:00 PM for the purpose of considering a request for a Planned Development Conceptual Development Plan.

WHEREAS, after the completion of said public hearing and upon consideration of any comments, objections or presentations at the hearing, the Town of Southern Pines Town Council deems it advisable and in the best interest of the Town of Southern Pines that the Zoning Map be amended as herein set forth below.

NOW THEREFORE, BE IT ORDAINED AND ESTABLISHED by the Town Council of the Town of Southern Pines, North Carolina assembled in regular session on the 11th day of January, 2022:

Section 1. That the Zoning Map of the Town of Southern Pines be, and the same hereby is, amended by changing the zoning of one existing parcel totaling 28.8 acres, more or less, from PD (Planned Development) to PD (Planned Development) with a revised Conceptual Development Plan (CDP). The subject parcels are described as follows:

BEING ALL OF THAT 28.8 ACRES, MORE OR LESS, DESCRIBED IN PLAT
CABINET 18, SLIDE 25 MOORE COUNTY REGISTRY

Section 2. That the Planned Development (PD) zoning classification is subject to the mix of land uses set forth in the approved Conceptual Development Plan (CDP).

Section 3. That development of the property referenced in Section 1 of this Ordinance is subject to conformance with the text and site plan that accompanied Planned Development - Conceptual Development Plan (CDP) application PD-11-21, a copy of which may be found on file in the Town of Southern Pines Planning office, 180 SW Broad Street, Southern Pines, North Carolina.

Section 4. That this Ordinance shall be and shall remain in full force and effect from the date of its adoption.

Adopted this **11th day of January, 2022.**

ATTEST:

TOWN OF SOUTHERN PINES

Elizabeth Robertson, Deputy Town Clerk

Carol Haney, Mayor

APPROVED AS TO FORM:

Douglas R. Gill, Town Attorney

I certify that this Ordinance was adopted by the Town Council of the Town of Southern Pines at its meeting on January 11, 2022 as shown in the Minutes of the Town Council meeting for that date.

Elizabeth Robertson, Deputy Town Clerk

COUNTY OF MOORE
STATE OF NORTH CAROLINA

I swear that this is a true and accurate copy of an Ordinance amending the Zoning Map of the Town of Southern Pines adopted on September 14, 2021 (PD-08-21).

Peggy K. Smith, Town Clerk

Date

REQUIRED APPLICATION MATERIALS:

- ☒ **Application fee** in the amount of **\$1,500.00 + \$25.00 per lot for a Major Subdivision**
- ☒ **Completed Application** for a Special Use Permit signed by the applicant. Please do not leave anything blank and make sure that all of the information provided is correct.
- ☒ **Appointment of Agent**, if applicable, signed by the property owner(s) and the agent.
- ☒ **List of Adjacent Property Owners**: Please list all properties that are that are within two hundred (200) feet of the outermost boundaries of the subject property **(not counting streets, railroads or other transportation corridors)**. Attach additional pages if needed. No fewer than ten (10) property owners shall be notified by mail.
- ☒ **Deed** copy to provide proof of ownership and property boundaries.
- ☒ **Project description**: Please tell us what currently exists and what changes you are proposing. Please attach written descriptions, maps, illustrations/renderings, photographs, material samples, etc. as necessary.
- ☒ **Written narrative**: It is the responsibility of the applicant to demonstrate compliance with all applicable criteria. Please address all criteria listed in **UDO §2.21.7**. The list of criteria is attached.
- ☒ **Electronic copy (PDF) of all application materials** submitted to plan@southernpines.net.

PLEASE SUBMIT ONLY ONE (1) COMPLETE SET OF ALL MATERIALS.

REVIEW AND APPROVAL:

1. **Staff review**: Planning staff will review the application and notify the applicant if additional information or materials are needed.
2. **Public hearings**: The applicant is expected to attend a public hearing on the application before the Planning Board and before the Town Council the following month. (Please refer to the **Application Processing Timeline** to determine the hearing dates.) The Planning Board will recommend approval, conditional approval or denial to the Town Council. The Town Council will consider that recommendation, as well as evidence and testimony presented, and approve, conditionally approve or deny the Special Use Permit.
3. **Issuance of a Special Use Permit**: If the request is approved by the Town Council, a Special Use Permit setting forth any conditions of approval will be issued to the applicant.

PLANNING DEPARTMENT
TOWN OF SOUTHERN PINES
plan@southernpines.net (910) 692-4003 www.southernpines.net



Special Use Permit Application

Fee: \$ _____

Date Paid: _____

Case No.: SU-____-____

Project Information:

Street Address: _____ Corner of Bennett and Wisconsin

PIN: _____ 858100075253

Parcel ID: _____ 20190227

Site Size: _____ 1.23 acres

Zoning: _____ CB-DTO

Applicant:

Name(s): _____ Bantembo, LLC, Colin Webster, Manager

Email: _____ colin@ascotgrp.com

Phone: _____ 910-639-1065

Mailing Address: _____ 30 Country Club Boulevard, Whispering Pines, NC 28327

Authorized Agent, if different from Applicant:

Name(s): _____ Kevin S. Lindsay, PE

Email: _____ kevinlindsay@crawforddsn.com

Phone: _____ 910-920-7661

Mailing Address: _____ 230 W. Pennsylvania, Suite C, Southern Pines, NC 28387

Legal Property Owner(s), if different from Applicant:

Name(s): _____

Email: _____

Phone: _____

Mailing Address: _____

8-27-21

TO THE TOWN OF SOUTHERN PINES PLANNING BOARD AND TOWN COUNCIL:

I, the undersigned, do hereby make application to and petition the Planning Board and Town Council to grant a Special Use Permit as required by the Town of Southern Pines Zoning Ordinance. The following information is submitted in support of this application:

The property which is the subject of this application is located on the Southeast side of Bennett (St./Ave.), between Wisconsin (St./Ave.) and Morganton (St./Ave.). The property has a frontage of 194 feet and a depth of 277 feet.

The special use sought is based upon Section(s) 2.20 (A) of the **Town of Southern Pines Unified Development Ordinance**. The proposed use of the property is as follows:

20 unit Townhome development

Date: 11/11/2021



Applicant

**PLANNING DEPARTMENT
TOWN OF SOUTHERN PINES**
plan@southernpines.net (910) 692-4003 www.southernpines.net

APPOINTMENT OF AGENT

The undersigned owner(s), Colin Webster, hereby appoint(s) Kevin Lindsay, PE as the exclusive agent for the purpose of making an application to the Town of Southern Pines for a Special Use Permit on the property described in the attached application. The owner(s) hereby agree that this agent has the authority to act for and on behalf of the owner(s) as follows:

1. to submit an application and required supplemental materials;
2. to appear at public meetings and give representation and comments on behalf of the owner(s);
3. to accept conditions or recommendations made by the Town of Southern Pines Planning Board and Town Council for the issuance of a Special Use Permit on the subject property; and
4. to act on behalf of the owner(s) without limitations with regard to any and all things directly or indirectly connected with or arising out of any application for a Special Use Permit under the Southern Pines Unified Development Ordinance.

This Appointment of Agent shall remain in effect until final resolution of the attached application.

Signed this 11 day of NOVEMBER, 2021.



Property Owner

Property Owner


Agent



Major Subdivision Preliminary Plat

REQUIRED APPLICATION MATERIALS:

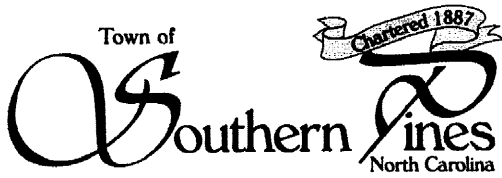
- ☒ **Special Use Permit Application** and all supporting documentation.
- ☒ **Completed Major Subdivision Preliminary Plat Application** signed by the applicant.
- ☒ **Appointment of Agent**, if applicable, signed by the property owner(s) and the agent.
- ☒ **Deed** copy to provide proof of ownership and property boundaries.
- ☒ **Preliminary Plat**: Please refer to Appendix A of the UDO (pg. A-11) for detail requirements.
- ☒ **Written narrative**: It is the responsibility of the applicant to demonstrate compliance with **UDO §2.19** and **§2.20**.
- ☒ **Additional documentation**: Additional text and/or maps provided to demonstrate consistency with the criteria for approval of a preliminary plat listed in **UDO §2.20.5(G)**. The list of criteria is attached.
- ☒ **Covenants and Restrictions**, if applicable.
- ☐ **Utility letters** confirming the availability of service and improvements necessary to provide water, wastewater, natural gas or telecommunications services (not needed for Town services).
- ☒ **Drainage concept plan**, if applicable – see drainage impact analysis checklist.
- ☐ **Traffic impact analysis**, if applicable – see traffic impact analysis checklist.
- ☒ **Electronic copy (PDF) of all application materials** submitted to plan@southernpines.net

PLEASE SUBMIT ONLY ONE (1) COMPLETE SET OF ALL MATERIALS.

REVIEW AND APPROVAL:

1. **Staff Review**: Planning staff will review the application within five business days and notify the applicant if additional materials are needed.
2. **Public Hearing**: A public hearing will be held before the Town Council at its regular monthly meeting. (Please refer to the **Application Processing Timeline** to determine the hearing date.) In addition to the regular meeting, the applicant or a representative is expected to attend the Town Council agenda meeting the Wednesday prior to the regular meeting.
3. **Approval**: The Town Council may approve, conditionally approve or deny the application based on the criteria listed in **UDO §2.20.5(G)**. The Special Use Permit shall not become effective until the Planning Director approves and the Applicant records the final plat for the applicable area.

PLANNING DEPARTMENT
TOWN OF SOUTHERN PINES
plan@southernpines.net (910) 692-4003 www.southernpines.net



Major Subdivision Preliminary Plat Application

Date Received: _____ Case No.: S-____ - _____

Subdivision Name: Townhomes on Bennett Street Address: Bennett St. & Wisconsin Ave.
PIN: 858100075253 Parcel ID: 20190227 Zoning District: CB-DTO
Project acreage in: Lots 0.63 + Roads 0 + Open Space 0 + Common Area 0.45
+ Other (describe) 0.15 exist commercial (phase 2) = Total Project Acreage 1.23
Number of Lots: 20 Minimum Lot Size: 1,330 sf Setbacks: 15 front, 10 rear, 5 side
Highway Corridor Overlay: Yes/No No If yes, Urban Village _____ Urban Transition _____ Rural Hwy _____
Watershed: Yes/No Yes If yes, LR #2: X LR Vass: _____ Nicks Creek: _____ HQW: Yes/No Yes
Does the site contain a Special Flood Hazard Area: Yes/No No Does the site contain wetlands: Yes/No No

Applicant:

Name: Bantembo, LLC, Colin Webster, Manager
Phone: 910-639-1065 Email: colin@ascotgrp.com
Mailing Address: 30 Country Club Boulevard, Whispering Pines, NC 28327

Contact Person, if different from Applicant:

Name: _____
Phone: _____ Email: _____
Mailing Address: _____

Legal Property Owner(s), if different from Applicant:

Name(s): _____
Phone: _____ Email: _____
Mailing Address: _____

Date: 10/11/2021


Signature of Applicant

8/27/21

APPOINTMENT OF AGENT

The undersigned owner(s), Colin Webster, hereby appoint(s) Kevin Lindsay, PE as the exclusive agent for the purpose of making an application to the Town of Southern Pines for approval of a Major Subdivision of the property described in the attached application. The owner(s) hereby agree that this agent has the authority to act for and on behalf of the owner(s) as follows:

1. to submit an application and required supplemental materials;
2. to appear at public meetings and give representation and comments on behalf of the owner(s);
3. to accept conditions or recommendations made by the Town of Southern Pines Planning Board and Town Council for the approval of a Major Subdivision of the property; and
4. to act on behalf of the owner(s) without limitations with regard to any and all things directly or indirectly connected with or arising out of any application for a Major Subdivision under the Southern Pines Unified Development Ordinance.

This Appointment of Agent shall remain in effect until final resolution of the attached application.

Signed this 17 day of NOVEMBER, 2021.



Property Owner

Property Owner



Agent

Description of Project:

The northern portion of the block between Broad, Wisconsin, and Bennett is a former bank facility with a wooded portion. The lots have been purchased and recombined under two different owners. This project, to be owned by Bantembo, LLC, will be used to construct 20 high quality townhomes. Included on this new parcel is an existing building to which no changes are being made at this time.

The primary entrance and exit to the 20 townhomes will be from Wisconsin—using the existing entrance. A second, exit only, is being added to Bennett. Private water and sewer will be extended to serve the new townhomes. A combination of permeable pavers and underground stormwater will be used to keep impervious area below 70% and to keep runoff of the 10-year storm to current rates.

Traffic: The ITE Daily Trips for low rise multi-family is 7.32. For the planned 20 units, the total number of trips per day would therefore be 146 trips. Since this is below 200, as per the UDO, a TDA or TIA is not required. Further since this is downtown within easy walking distance to shops, restaurants, entertainment, and many places of work, the number would likely be even lower. Further still, the block configuration is laid out to handle the scope of this development as evidenced by the townhome project on the other side of Wisconsin. Therefore an exemption to the TIA/TDA Town Engineer's Report is requested.

Additional Notes by Applicant:

1. The Applicant is planning to request that a portion of the irregular right of way at the corner of Bennett and Wisconsin, be abandoned and added to the applicants property. Initial discussions with the Town indicate that this is feasible, but final determination will be dealt with during Site Plan Review and will require formal right of way abandonment. Therefore, the improvements shown in the existing right of way will not be approved with the SUP.

2. Sidewalks to TOSP standards shall be provided on both S. Bennett and W. Wisconsin.

3. Applicant is planning to ask for administrative relief on the 10' rear setback on W. Wisconsin during the site plan review process and will provide no less than 6 feet. This will be based on the following criteria:

- a. The relief will not create a burden on adjacent property owners or conflict with zoning districts purposes. *Because Wisconsin has an 80 foot right of way, with the four foot reduction there will still be approximately 20 feet from the setback to the back of curb where there is parallel parking and 28 feet from the setback to the back of curb in areas without parallel parking.*

- b. The relief is necessary to allow efficient use of the property due to site condition or circumstances that do not commonly affect properties in the district. *Without this relief there would be insufficient room for 19 foot driveways. As such two parking spaces in each driveway would be lost. While not required (each unit has a two car garage), this would lead to more street parking and adversely impact both this and neighboring developments.*

c. The relief does not convey a right or privilege that would be unavailable to similarly suited properties. *This relief could be reasonably granted to other properties in the area where the Town's right of way is 80 feet and the benefit of the relief outweighed any adverse impacts.*

4. Since the Town of Southern Pines seeks to maintain existing street trees, the applicant will attempt to maintain as many of the existing trees along Bennett and Wisconsin as possible. In areas where there are no street trees or street trees must be removed, street tree shall be provide at a rate of one tree per thirty feet in accordance with TOSP standards.

5. As agreed to by the Town of Southern Pines Planning and Engineering staff, the interior "streets" shall be design to alley way standards. Streets required for fire access shall be a minimum of 20' wide and meet all fire department requirements.

Utility Providers (note: project is located in Downtown Southern Pines between Bennett and Broad)

1. Power: Duke Electric

2. Water: Town of Southern Pines

3. Sewer: Town of Southern Pines

4. Trash: Town of Southern Pines

5. Natural Gas: Piedmont Natural Gas

6. Cable and Internet: Spectrum Cable

Special Use Permit Criteria:

A. The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations.

Townhomes are allowed in this zoning district. All regulations shall be followed.

B. The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of the property in the immediate vicinity for the purposes already permitted.

There is a townhome project across Wisconsin Ave. and numerous businesses in the area that will benefit from additional foot traffic from the townhomes.

C. Adequate public facilities shall be provided as set forth herein.

Public roads, water and sewer, and power are available to the site.

D. The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood.

The area already has a Townhome project across the street and has numerous retail and eating establishments that will benefit from additional foot traffic of these homes.

E. The establishment, maintenance or operation of the proposed use shall not be detrimental to or endanger the public health, safety, comfort or general welfare.

There will be no adverse impacts to adjacent properties from this development.

F. The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use.

Numerous local businesses will benefit from additional foot traffic. This portion of downtown does not have the same residential development as other areas, so the added foot traffic will be of significant benefit that far outweighs any adverse impacts.

Criteria for Preliminary Plat:

1. The application is consistent with the approved Sketch Plat, if applicable.

NA. Owner met with and received comments on a sketch plan, but no formal approval was requested or provided.

2. The application is consistent with the Comprehensive Plan, as well as any other adopted plans for streets, alley, parks playgrounds, and public utility facilities.

The planned addition of 20 townhome is consistent with the Comprehensive Plan and will be across the street from an existing townhome project. Units will be served by adjacent roads and utilities and will not interfere with adjacent properties. The primary entrance is in the same area as the current entrance. A second, one way out, is being added on Bennett Street at the Town's request.

3. The proposed subdivision complies with the UDO and the applicable state and federal regulations.

The proposed plan meets all UDO requirements except minor deviations in setbacks have been requested (a 40% reduction). The reduction will be consistent with adjacent properties.

4. The proposed subdivision, including lot sizes, density, access, and circulation, is compatible with the existing and/or permissible zoning and future land use of adjacent property.

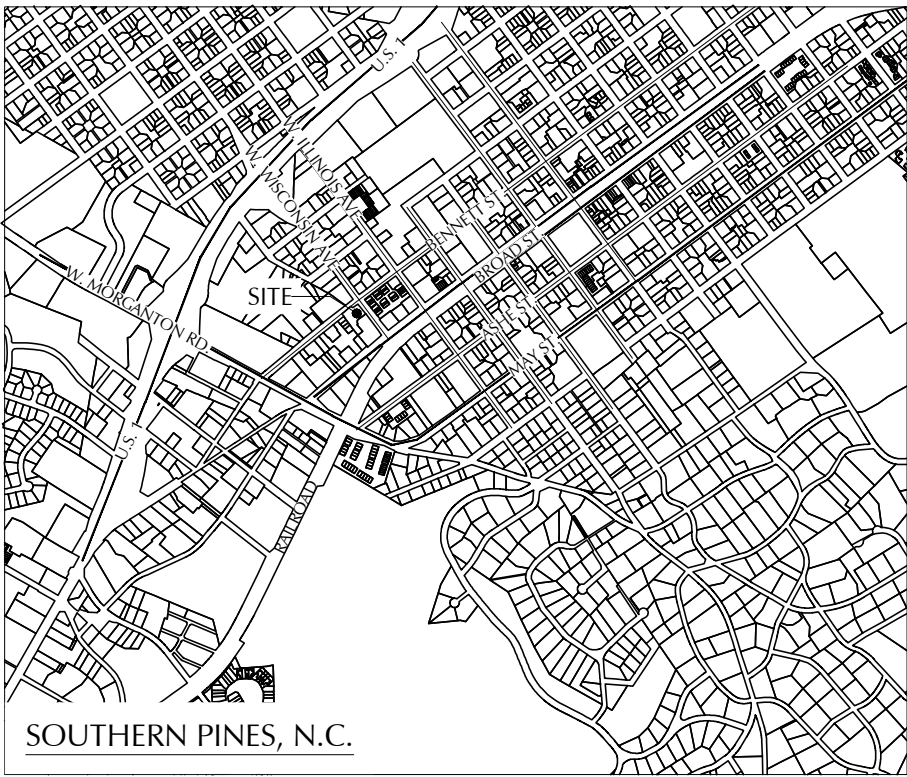
The area already has a Townhome project across the street and has numerous retail and eating establishments that will benefit from additional foot traffic of these homes.

5. The proposed subdivision will not have detrimental impacts on the safety or viability of permitted used on adjacent properties.

No adjacent properties will be impacted by the development.

6. The proposed public facilities are adequate to serve the normal and emergency demands of the proposed Development, and to provide for the efficient and timely extension of utilities to serve future development.

The existing utilities in the area are adequate to serve this development. No public water or sewer mains will be required (private water and sewer mains will be constructed on site).



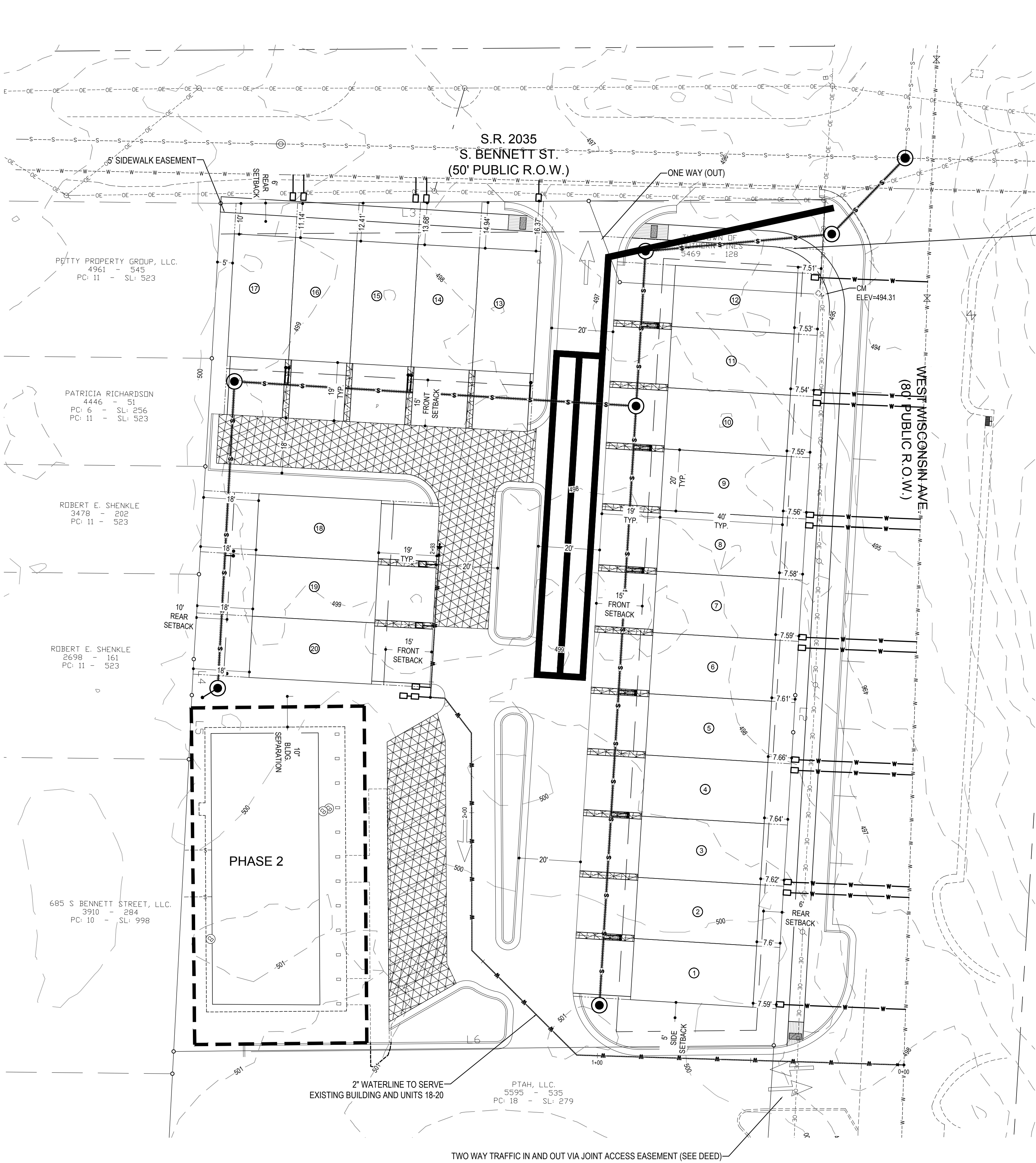
VICINITY MAP (1" = 2000')

PLAT NOTES

PROPERTY ADDRESS:
CORNER OF S. BENNETT ST. AND W. WISCONSIN AVE.
SOUTHERN PINES, NC 28387

- OWNER ADDRESS:
Bantembo, LLC
Colin Webster - Manager
30 Country Club Boulevard
Whispering Pines, NC 28327
colin@ascotgrp.com
910-639-1065
1. SIZE: 52,297 SF, 1.2 ACRES
 2. CURRENT ZONING: CB-DTO
 3. OPEN SPACE: NA SINCE THERE ARE ONLY 20 UNITS
 4. THERE ARE NO FLOOD PLAINS OR FLOOD WAYS.
 5. THERE ARE NO WETLANDS.
 6. LOT IS IN WS WATERSHED, LR #2, AND HQW.
 7. LOT REQUIRES A 5/70 ALLOCATION.
 8. EXISTING IMPERVIOUS: 17, 138 SF (32.8%)
 9. PROPOSED IMPERVIOUS: 36,085 SF (69%)
(DOES NOT INCLUDE PERMEABLE PAVERS)
 10. PERMEABLE PAVERS AND UNDERGROUND STORAGE
PIPING SHALL BE USED TO KEEP POST CONSTRUCTION RUNOFF FOR THE
10 YEAR STORM BELOW CURRENT RATE.
 11. 20 TOWN HOMES ARE ESTIMATED TO PRODUCE AROUND 146 TRIPS PER DAY.
THE SOUTHERN PINES UDO REQUIRES A TRAFFIC DESIGN ANALYSIS (TDA)
FOR OVER 200 TRIPS. THEREFORE NEITHER A TIA OR DIA ARE REQUIRED.
 12. SIDEWALKS TO TOSP STANDARDS SHALL BE CONSTRUCTED ON WISCONSIN
AND BENNETT STREETS.
 13. APPLICANT IS REQUESTING AN ADMINISTRATIVE REDUCTION OF THE REAR
SETBACK ON WISCONSIN FROM 10 FEET TO 6 FEET.
 14. APPLICANT WILL ATTEMPT TO PRESERVE EXISTING STREET TREES ON
BENNETT AND WISCONSIN TO THE EXTENT POSSIBLE. STREET TREES SHALL
BE PROVIDED IN AREAS THAT DO NOT HAVE STREET TREES AT A RATE OF
ONE PER THIRTY FEET IAW TOSP STANDARDS.

- S — 6" PRIVATE SEWER MAIN
— W — 2" PRIVATE WATER MAIN
— SEWER SERVICE
— WATER SERVICE
■ UNDERGROUND STORMWATER CONTROL MEASURE (SCM)
▨ PERMEABLE PAVERS



THE DEVELOPER IS SEEKING THAT THE TOWN
ABANDON A PORTION OF THIS IRREGULAR RIGHT
OF WAY. THE AREA SHOWN IN THE SUP AND IS
AN ISSUE THAT WILL BE DEALT WITH DURING SITE PLAN
REVIEW AND A RIGHT OF WAY ABANDONMENT
WILL BE REQUIRED PRIOR TO FINAL PLAT APPROVAL

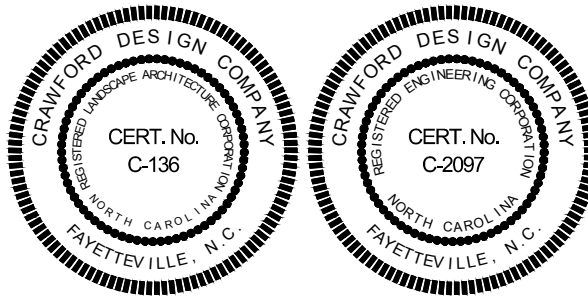
MAJOR SUBDIVISION
FOR
BANTEMBO, LLC

McNeill Township, Moore County,
North Carolina
November 15, 2021 SCALE 1" = 20'

Crawford
Design Company

LANDSCAPE
ARCHITECTURE
ENGINEERING
PLANNING

Landscape Architecture ♦ Fayetteville, NC
Civil Engineering ♦ Southern Pines, NC
116 N. Cool Spring Street ♦ Fayetteville, NC 28301
Voice: 910-221-0033 ♦ Fax: 910-221-0035
www.crawforddsn.com



SEALS

PRELIMINARY PLAT

REVISIONS	
0	mm-dd-yy Description

BANTEMBO, LLC
TOWNHOMES ON BENNETT

PRELIMINARY PLAT

PROJECT DETAILS
Project Manager: KSL
CAD Technician: RFN/GER
Reviewed / Approved By:
Project Number: 21027

SCALE 0 20 40
Full Scale: Horiz.: 1" = 20' (24x36)
Half Scale: Horiz.: 1" = 40' (11x17)

ISSUE DATE: 11/15/2021

SHEET NUMBER

PP-1.0

DRAINAGE IMPACT ANALYSIS CHECKLIST

PROJECT NAME:	
Developer: Bantembo LLC, Colin Webster, Manager	Engineer: Kevin Lindsay, PE
Point of Contact: Colin Webster	Firm: Crawford Design Company
Address: 30 Country Club Boulevard Whispering Pines, NC 28327	Address: 230 W. Pennsylvania Ave., Suite C Southern Pines, NC 28387
Phone: 910-639-1065	Phone: 910-920-7661
Email: colin@ascotgrp.com	Email: kevinlindsay@crawforddsn.com

The purpose of this checklist is to expedite and facilitate the review process. This checklist gives the minimum requirements needed for initiation of drainage review by the Southern Pines Town Council. All items shall be checked as included or marked N/A. The omission of required items may be cause for rejection of the submittal without review.

I. General Requirements

- ☒ Bound drainage impact analysis containing three (3) distinct and designated parts (Project Summary, Analysis, and Calculations).
- ☒ Each submittal shall contain a minimum of two ^{1 as per Town instructions} ~~(2)~~ complete copies.
- ☒ Pre and Post development output for each storm event as well as supporting calculations shall be separated with dividers bound in the report.
- ☒ Cover sheet for the drainage impact analysis shall be signed and sealed by the Engineer of Record as shown above.
- ☒ All maps, drawings, or calculations shall be bound and made a part of the impact analysis. Maps and drawings shall be 11 by 17 in fold outs only.
- ☒ The drainage impact analysis shall be based on the 10 year storm and checked for the 100 year storm for new developments.

II. Drawings / Maps

- ☒ A legible copy of the most recent soil survey map with the proposed location clearly identified.
- ☒ A watershed map reflecting the following minimum information:
 - i. Overall watershed boundaries delineated using LIDAR two-foot interval contours approved by CPPJ Engineer.
 - ii. Two (2) foot topographic site contours within the boundary of the development delineated using actual onsite topographic surveys.
 - iii. Delineated drainage areas including offsite watershed areas with acreage shown.
 - iv. Each basin shall be annotated with its slope, travel length to the entry point and/or exit point of the development, and curve number or runoff coefficient.
 - v. Composite curve numbers or runoff coefficients shall be clearly designated on the pre-development drainage map and calculations supporting each composite number shall be included in the drainage analysis.
 - vi. Existing land use and vegetative cover for all drainage areas.
 - vii. The location, description, and elevation of all permanent and temporary benchmarks used for the analysis and to be used for the development construction.

- viii. Overall view of drainage and ultimate drainage disposal map including the limits of the watershed downstream of development to the point where said development is less than ten (10) percent of the entire watershed.
- ix. 100-year flood zones and base flood elevations, if applicable, including all regulatory floodways and coastal high hazard areas.
- x. Identification of all existing drainage features whether natural or man-made.
- xi. The pre-development map shall be produced at a scale which legibly shows all pertinent existing drainage information on sheets no larger than 11 by 17 in.
- xii. At a minimum, the pre-development drainage map shall include a north arrow, vicinity map, and a title block with the name of the development. The name of the development shall match the name shown on this form.



A development drainage layout with the following minimum information:

- i. Existing and proposed development contours at two (2) foot intervals. One (1) foot contours may be required by the Town engineer where additional information is needed to define topographic features of a site.
- ii. Various drainage areas based on conceptual design and proposed layout of development.
- iii. Offsite drainage areas shown at entry points to the development with calculated ten (10) year peak discharge rates.
- iv. Clear delineation of each drainage basin both on and off site. Each basin shall be uniquely identified. No two drainage areas regardless of pre or post condition shall have the same identifier.
- v. Existing and proposed drainage patterns, slope, and travel length with estimated ten (10) year peak discharge rates based upon existing and future land use and zoning of the offsite drainage areas. Future conditions will be based on the current land use and zoning maps.
- vi. Each basin shall be annotated with its drainage area, hydraulic length, hydraulic slope, and curve number or runoff coefficient.
- vii. Composite curve numbers or runoff coefficients shall be clearly designated on the post-development drainage map and calculations supporting each composite number shall be included in the drainage analysis.
- viii. Existing and proposed drainage and maintenance easements.
- ix. Delineated flood zones, regulatory floodways, coastal high hazard areas, and the highest recorded inundation, where available.
- x. Existing and proposed ditches, culverts, or other hydraulic features or structures.
- xi. The location of the outfall of the entire drainage area shall be identified to include location, total acreage, and peak discharge for the design storm. If more than one outfall exists for the development, each outfall shall be identified separately.
- xii. The post-development map shall be produced at a scale which legibly shows all pertinent drainage information.
- xiii. At a minimum the post-development drainage map shall include a north arrow, vicinity map, and a title block with the name of the development.

III. Detention Facilities



Typical Sections for each detention facility in the development shall be shown.



Stage vs. Storage and Stage vs. Discharge information shall be provided for each detention facility.



The development inflow hydrographs for the 10-year and 100-year frequencies and all parameters and assumptions utilized to develop the hydrographs shall be reported.



The routing calculations and outflow hydrographs for the 10-year and 100-year frequencies shall be reported.



The peak water elevation in the detention facility for the 10-year design storm shall be noted.



Freeboard amount between overtopping elevation and peak water elevation for the design storm shall be noted.

☒ The performance of the detention facility in a 100 year storm shall be investigated and reported in the drainage analysis.

☒ The combination of existing/relocated outfalls with proposed detention facilities is permitted, however the performance of this system shall be sufficiently detailed to ensure staging in the facility does not increase the upstream water surface elevation.

NA ☐

When roadside ditches in a subdivision are designed to meet the detention criteria, all ditches in series will be considered a single facility.

NA ☐

In addition to the criteria listed above, developments having roadside ditches which provide detention shall clearly show the maximum hydraulic grade line (HGL) for each detention facility as well as the proposed top bank. Should parallel ditches be shown on a single plan profile sheet, each hydraulic grade line shall be clearly distinguished from adjacent HGL's.

NA ☐

For roadside detention, the effects of all future driveways shall be included in the hydraulic analysis.

NA **IV. Fill Mitigation Requirements**

☐ Delineated 100-year floodplain elevation on pre-development two (2) foot contour intervals.

☐ Post development two (2) foot contours

☐ Location of proposed fill credits to mitigate the fill volume below the 100-year elevation with cross sections

☐ Watershed boundaries should be identified.

NA **V. Flood Zone Requirements**

☐ Developments within the 100 year floodplain shall contain sufficient calculations and details to demonstrate that the 100 year flood stage is not increased.

☐ Detailed information shall be provided which identifies the location and amount of fill placed in the floodplain.

NA **VI. Floodway Requirements**

☐ When any portion of a development falls within a Federally designated floodway, a no-rise certificate shall be completed and submitted with the drainage analysis regardless of the type of construction in the floodway.

☐ A signed copy of the no-rise certificate shall be permanently bound and made a part of the drainage analysis.

VII. Plats

NA ☐ For subdivisions designed with open ditches the plat shall include the note stating that the open ditch will not be allowed to be enclosed at any time.

NA ☐ The plat shall include a statement regarding the required pipe size for all driveways. Should various pipe sizes be required for hydraulic capacities, the locations of the sizes shall be clearly noted.

NA ☐ A note shall be included that requires the lot owner to provide the proper grading of lots to match drainage designs including lot flow arrows identifying grading requirements to satisfy drainage design.

NA ☐ The location of all flood zones and/or floodways shall be clearly marked on the plat along with base flood elevations.

VIII. Additional Requirements

NA ☐ Engineering Plans submitted for approval which do not match the approved drainage analysis will be returned without review.

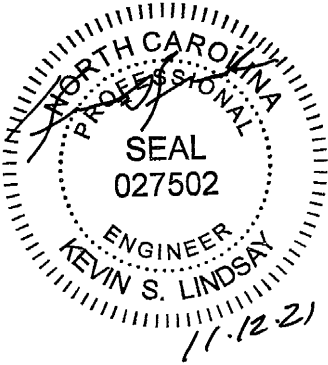
I, the undersigned, acknowledge by signature that the submitted drainage impact analysis meets or exceeds the requirements set forth by ordinance for the Town of Southern Pines. I understand that failure to comply with the requirements set forth may result in the return of the submitted drainage documents without review.

Kevin S. Lindsay

11-12-21 NC027502

Signature Date

NC License Number



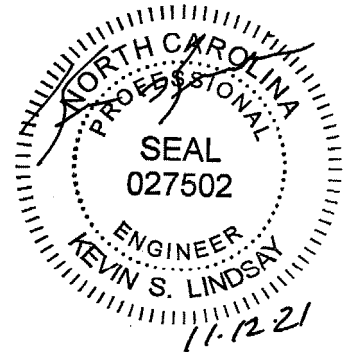
SCM Narrative for Townhomes on Bennett

1. Existing Conditions. Property has been used as a bank office building, with a portion remaining forest. Soils are Candor-Urban Land Complex -- CbC. Rational "C" value of .15 and CN of 40. Drainage sheet-flows to northwest corner.

2. Proposed Project: 20 Townhomes are planned for the site. The existing building shall remain as is for now.

3. Drainage Concept: Permeable pavers shall be used to keep impervious areas to less than 70% and underground infiltration half pipe in stone shall be used to capture and infiltrate sufficient runoff to keep post construction flow rates below current flow rates for the 10-year storm. The 100 year storm will also be handled by the site without flooding or damage.

4. As the attached report shows, the 10 year storm shall be reduced from current flow of 3.8 cfs to a post construction flow of 2.73 cfs.





United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Moore County, North Carolina**



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Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Moore County, North Carolina
Survey Area Data: Version 23, Sep 2, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 28, 2019—Jul 30, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CbC	Candor-Urban land complex, 2 to 12 percent slopes	0.9	100.0%
Totals for Area of Interest		0.9	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Moore County, North Carolina

Candor-Urban Land Complex -- CbC

CbC—Candor-Urban land complex, 2 to 12 percent slopes

Map Unit Setting

National map unit symbol: 3tj0
Elevation: 160 to 660 feet
Mean annual precipitation: 38 to 52 inches
Mean annual air temperature: 61 to 70 degrees F
Frost-free period: 210 to 245 days
Farmland classification: Not prime farmland

Map Unit Composition

Candor and similar soils: 60 percent
Urban land: 30 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Candor

Setting

Landform: Low hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and loamy marine deposits and/or eolian sands

Typical profile

A - 0 to 8 inches: sand
E - 8 to 26 inches: sand
Bt - 26 to 38 inches: loamy sand
E' - 38 to 62 inches: sand
B't - 62 to 80 inches: sandy clay loam

Properties and qualities

Slope: 2 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: About 72 to 78 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: F137XY004GA - Dry Sandy Backslope Woodland -
PROVISIONAL
Hydric soil rating: No

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydric soil rating: No

Minor Components

Bibb, undrained

Percent of map unit: 3 percent

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: Yes

Townhomes on Bennett					
Item	Existing Conditions	Post Development		Max Post Dev WSE	Notes/Freeboard
		Without BMP	With BMP		
Drainage Area (ac)		1.201			
Curve Number	67.07	83.12			
C-Value	0.43	0.70			
Q, 1-yr Storm (cfs)	2.80	4.53	0.05	493.16	4.04
Q, 10-yr Storm (cfs)	3.80	6.14	2.73	494.05	3.15
Q, 100-Yr Storm (cfs)	5.08	8.21	6.07	495.65	1.55
Normal/Permanent Pool			189.75		
Peak Reduction Orifice			492.66		6' Weir
Outlet Weir			495.40		4' Weir
Drive Low point			497.20		

Attachment B--Hydraulic Calculations

Townhomes on Bennett						Time of Concentration and Intensity Derivations:			
Hydrograph formulation Drainage Subarea: Lot						Kirpich's Equation: $T_c = \frac{K * (L^3/H)^{0.385}}{128}$			
						L = 356 Overland Hydraulic Length of watershed (ft)			
						H = 6 Elevation diff. along "L" (ft)			
						K = 1 Multiplier for flow path conditions (see HRM supp. p2-4)			
Calculated $T_c = 3.47$ (see HRM supp. p2-4)						$T_c =$ 5.00 min. (use 5 as minimum)			
Pre-Construction						g & h are regression coeff listed in HRM supplement p. 5-3 $I = \frac{g}{h + T}$ (from HRM p. 2-6) $T = T_c$			
IA	18,594	C=	0.95	CN=	98				
Pervios 1	33,703	C=	0.15	CN=	50				
1.201 ac									
Runoff Volume Estimate (SCS Curve Number Method)						1-yr	10-yr	25-yr	100-yr
Drainage Area (ac) = 1.201 acres						P (in) = 2.5	P (in) = 4.2	P (in) = 5	P (in) = 6.3
CN = 67.07 SCS Curve Number						g = 129	g = 226	g = 271	g = 341
C = 0.43 Rat'l Coeff.						h = 19	h = 26	h = 28	h = 30
$S = \frac{1000}{CN} - 10$ S = 4.91						I (in/hr) = 5.38	I (in/hr) = 7.29	I (in/hr) = 8.21	I (in/hr) = 9.74
$R.O. (in) = \frac{(P - 0.2*S)^2}{(P + 0.8*S)}$						Peak Flow (Rational Method)			
$R.O. (in) =$						$Q (cfs) = CiA$			
$R.O. (in) =$						Q (cfs) = 2.80	Q (cfs) = 3.80	Q (cfs) = 4.28	Q (cfs) = 5.08
$R.O. (in) =$						Tp (min) = 6.7	Tp (min) = 17.5	Tp (min) = 22.0	Tp (min) = 28.4
$R.O. (in) =$						$R.O. (in) =$			
$R.O. (cf) =$						$R.O. (cf) =$			
$R.O. (cf) =$						$R.O. (cf) =$			

Townhomes on Bennett						Time of Concentration and Intensity Derivations:			
Hydrograph formulation Drainage Subarea: Lot						Kirpich's Equation: $T_c = \frac{K * (L^3/H)^{0.385}}{128}$			
						L = 356 Hydraulic Length of watershed (ft)			
						H = 6 Elevation diff. along "L" (ft)			
						K = 1 Multiplier for flow path conditions (see HRM supp. p2-4)			
Calculated $T_c = 3.47$						$T_c =$ 5.00 min. (use 5 as minimum)			
Post-Construction						g & h are regression coeff listed in HRM supplement p. 5-3 $I = \frac{g}{h + T}$ (from HRM p. 2-6) $T = T_c$			
IA	36,085	C=	0.95	CN=	98				
Pervios 1	16,212	C=	0.15	CN=	50				
1.201 ac									
Runoff Volume Estimate (SCS Curve Number Method)						1-yr	10-yr	25-yr	100-yr
Drainage Area (ac) = 1.201 acres CN = 83.12 SCS Curve Number C = 0.70 Rat'l Coeff. $S = \frac{1000}{CN} - 10$ $S = 2.03$ $R.O. (in) = \frac{(P - 0.2*S)^2}{(P + 0.8*S)}$						P (in) = 2.5 g = 129 h = 19 I (in/hr) = 5.38	P (in) = 4.2 g = 226 h = 26 I (in/hr) = 7.29	P (in) = 5 g = 271 h = 28 I (in/hr) = 8.21	P (in) = 6.3 g = 341 h = 30 I (in/hr) = 9.74
Peak Flow (Rational Method)						$Q (cfs) = CiA$			
$Q (cfs) =$ 4.53 $T_p (min) =$ 12.3						$Q (cfs) =$ 6.14 $T_p (min) =$ 21.0	$Q (cfs) =$ 6.92 $T_p (min) =$ 24.0	$Q (cfs) =$ 8.21 $T_p (min) =$ 27.9	
1-yr	10-yr	25-yr	100-yr						
$R.O. (in) = 1.06$	$R.O. (in) : 2.47$	$R.O. (in) = 3.19$	$R.O. (in) = 4.38$						
$R.O. (cf) = 4,632$	$R.O. (cf) : 10,769$	$R.O. (cf) = 13,883$	$R.O. (cf) = 19,104$						

Project: Townhomes on Bennett

Chamber Model -

SC-740

Units -

Imperial

[Click Here for](#)

Number of chambers -

84

Voids in the stone (porosity) -

40

%

Base of Stone Elevation -

190.25

ft

Amount of Stone Above Chambers -

12

in

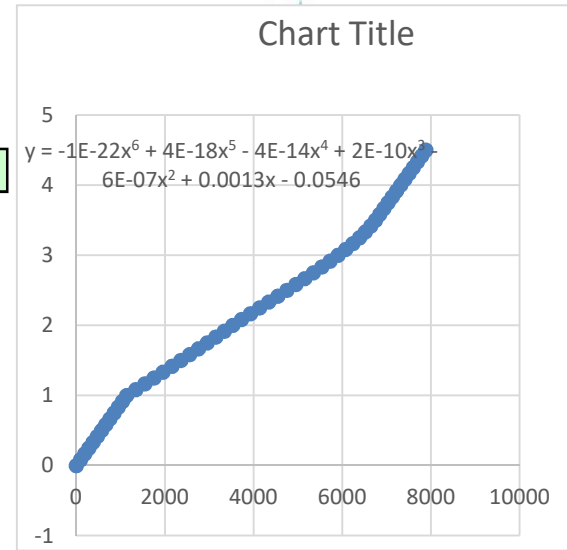
Amount of Stone Below Chambers -

12

in

Area of system -

2840 sf Min. Area



b	-0.05463
c1	0.00131
c2	-5.8E-07
c3	2E-10
c4	-3.8E-14
c5	3.7E-18
c6	-1.4E-22

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Stage (inches)	Stage (ft)	Incremental Single Chamber (cubic feet)	Incremental Total Chamber (cubic feet)	Incremental Stone (cubic feet)	Incremental Ch & St (cubic feet)	Cumulative Chamber*	Stage (ft)	z est	Elevation (feet)
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*Cumulative Chamber values include site pipe storage

0	0	0	0	0	0	0	0	-0.055	491.00
1	0.08333	0.00	0.00	94.67	94.67	94.67	0.083	0.065	491.08
2		0.00	0.00	94.67	94.67	189.33	0.167	0.175	491.17
3	0.25	0.00	0.00	94.67	94.67	284.00	0.250	0.276	491.25
4	0.33333	0.00	0.00	94.67	94.67	378.67	0.333	0.370	491.33
5	0.41667	0.00	0.00	94.67	94.67	473.33	0.417	0.457	491.42
6	0.5	0.00	0.00	94.67	94.67	568.00	0.500	0.538	491.50

Infiltration:		
Rate = $(7.18 + 5.61) / 2 =$	6.395	in/hr
Area sf =	3,126	sf
Q infiltration=	0.46	cfs
50% Q=	0.23	cfs

Stage-Storage

7	0.58333	0.00	0.00	94.67	94.67	662.67	0.583	0.614	491.58
8	0.66667	0.00	0.00	94.67	94.67	757.33	0.667	0.685	491.67
9	0.75	0.00	0.00	94.67	94.67	852.00	0.750	0.751	491.75
10	0.83333	0.00	0.00	94.67	94.67	946.67	0.833	0.814	491.83
11	0.91667	0.00	0.00	94.67	94.67	1041.33	0.917	0.873	491.92
12	1	0.00	0.00	94.67	94.67	1136.00	1.000	0.929	492.00
13	1.08333	2.21	185.42	20.50	205.92	1341.92	1.083	1.043	492.08
14	1.16667	2.20	184.66	20.80	205.46	1547.38	1.167	1.148	492.17
15	1.25	2.18	182.87	21.52	204.39	1751.77	1.250	1.247	492.25
16	1.33333	2.15	180.92	22.30	203.22	1954.99	1.333	1.340	492.33
17	1.41667	2.13	179.07	23.04	202.11	2157.10	1.417	1.430	492.42
18	1.5	2.10	176.81	23.94	200.75	2357.85	1.500	1.517	492.50
19	1.58333	2.07	174.30	24.95	199.24	2557.10	1.583	1.602	492.58
20	1.66667	2.04	171.78	25.95	197.73	2754.83	1.667	1.685	492.67
21	1.75	2.01	168.83	27.13	195.97	2950.80	1.750	1.767	492.75
22	1.83333	1.97	165.90	28.31	194.21	3145.01	1.833	1.847	492.83
23	1.91667	1.93	162.46	29.68	192.14	3337.15	1.917	1.925	492.92
24	2	1.89	159.02	31.06	190.08	3527.23	2.000	2.002	493.00
25	2.08333	1.85	155.82	32.34	188.16	3725.31	2.083	2.082	493.08
26	2.16667	1.80	151.44	34.09	185.53	3928.50	2.167	2.162	493.17
27	2.25	1.75	147.25	35.77	183.01	4133.68	2.250	2.243	493.25
28	2.33333	1.70	142.76	37.56	180.32	4339.40	2.333	2.325	493.33
29	2.41667	1.64	137.95	39.49	177.44	4544.63	2.417	2.406	493.42
30	2.5	1.58	132.92	41.50	174.42	4748.62	2.500	2.487	493.50

Drawdown Time:		
Orifice El:	191.91	ft
Storage:	2,697	cf
Time to Infil:	0.13	days
	3.24	hrs

Storage in site pipes: Flat pipe at avg invert of 192.25 assumed

Length 257 ft

(radius)= 0.75 ft

1(ht wtr)= stage-stage 0

V(vol)= $L*((R^2)*\text{acos}(R-h)/R)-((R-h)*(2*R*h-H^2))$

Elevation (ft)	h (ft)	Acc. Vol. (cf)	Stage
493.00	0.00	0.00	2.00
493.08	0.08	9.93	2.08
493.17	0.17	27.58	2.17
493.25	0.25	49.75	2.25
493.33	0.33	75.15	2.33
493.42	0.42	102.94	2.42
493.50	0.50	132.52	2.50

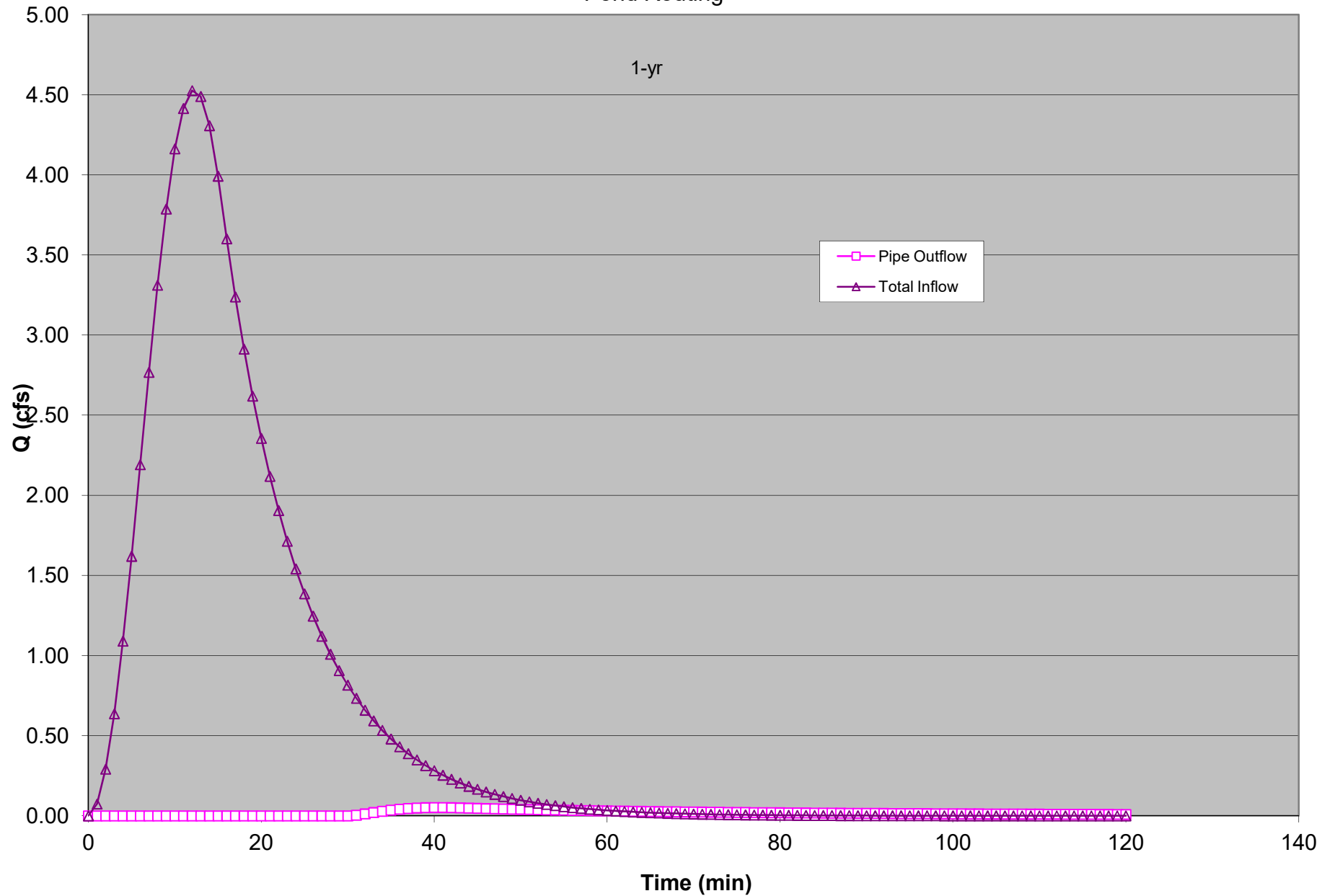
Stage-Storage

31	2.58333	1.52	128.08	43.44	171.51	4950.98	2.583	2.569	493.58	493.58	0.58	163.36	2.58
32	2.66667	1.45	122.14	45.81	167.95	5150.59	2.667	2.652	493.67	493.67	0.67	195.02	2.67
33	2.75	1.36	113.82	49.14	162.96	5345.61	2.750	2.736	493.75	493.75	0.75	227.08	2.75
34	2.83333	1.27	106.32	52.14	158.46	5536.12	2.833	2.823	493.83	493.83	0.83	259.14	2.83
35	2.91667	1.18	99.16	55.00	154.16	5721.94	2.917	2.911	493.92	493.92	0.92	290.80	2.92
36	3	1.07	90.26	58.56	148.82	5901.61	3.000	3.002	494.00	494.00	1.00	321.64	3.00
37	3.08333	0.95	79.86	62.72	142.58	6073.76	3.083	3.094	494.08	494.08	1.08	351.21	3.08
38	3.16667	0.80	67.34	67.73	135.07	6236.63	3.167	3.187	494.17	494.17	1.17	379.01	3.17
39	3.25	0.60	50.73	74.37	125.11	6387.13	3.250	3.279	494.25	494.25	1.25	404.40	3.25
40	3.33333	0.28	23.68	85.19	108.88	6518.18	3.333	3.363	494.33	494.33	1.33	426.57	3.33
41	3.41667	0.16	13.69	89.19	102.88	6638.71	3.417	3.444	494.42	494.42	1.42	444.23	3.42
42	3.5	0.05	4.62	92.82	97.44	6746.08	3.500	3.520	494.50	494.50	1.50	454.16	3.50
43	3.58333	0.00	0.00	94.67	94.67	6840.75	3.583	3.589	494.58	494.58	1.58	454.16	3.58
44	3.66667	0.00	0.00	94.67	94.67	6935.41	3.667	3.662	494.67	494.67	1.67	454.16	3.67
45	3.75	0.00	0.00	94.67	94.67	7030.08	3.750	3.736	494.75	494.75	1.75	454.16	3.75
46	3.83333	0.00	0.00	94.67	94.67	7124.75	3.833	3.814	494.83	494.83	1.83	454.16	3.83
47	3.91667	0.00	0.00	94.67	94.67	7219.41	3.917	3.894	494.92	494.92	1.92	454.16	3.92
48	4	0.00	0.00	94.67	94.67	7314.08	4.000	3.977	495.00	495.00	2.00	454.16	4.00
49	4.08333	0.00	0.00	94.67	94.67	7408.75	4.083	4.063	495.08	495.08	2.08	454.16	4.08
50	4.16667	0.00	0.00	94.67	94.67	7503.41	4.167	4.151	495.17	495.17	2.17	454.16	4.17
51	4.25	0.00	0.00	94.67	94.67	7598.08	4.250	4.242	495.25	495.25	2.25	454.16	4.25
52	4.33333	0.00	0.00	94.67	94.67	7692.75	4.333	4.335	495.33	495.33	2.33	454.16	4.33
53	4.41667	0.00	0.00	94.67	94.67	7787.41	4.417	4.430	495.42	495.42	2.42	454.16	4.42
54	4.5	0.00	0.00	94.67	94.67	7882.08	4.500	4.528	495.50	495.50	2.50	454.16	4.50

49	0.11	0.11	3906.76	493.15	2.15383	0.15	7.20	10.63	0.80	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.11	0.04
50	0.10	0.10	3904.25	493.15	2.15284	0.14	7.17	10.62	0.80	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.10	0.04
51	0.09	0.09	3901.81	493.15	2.15187	0.13	7.15	10.61	0.79	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.09	0.04
52	0.08	0.08	3899.44	493.15	2.15093	0.12	7.13	10.60	0.79	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.08	0.04
53	0.07	0.07	3897.13	493.15	2.15002	0.11	7.11	10.59	0.79	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.07	0.04
54	0.06	0.06	3894.88	493.15	2.14913	0.10	7.09	10.58	0.79	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.06	0.04
55	0.06	0.06	3892.70	493.15	2.14826	0.09	7.07	10.57	0.78	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.06	0.04
56	0.05	0.05	3890.57	493.15	2.14741	0.09	7.06	10.56	0.78	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.05	0.03
57	0.05	0.05	3888.49	493.15	2.14659	0.08	7.04	10.55	0.78	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.05	0.03
58	0.04	0.04	3886.47	493.15	2.14579	0.07	7.02	10.54	0.78	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.04	0.03
59	0.04	0.04	3884.50	493.15	2.14501	0.07	7.00	10.53	0.78	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.04	0.03
60	0.03	0.03	3882.59	493.14	2.14425	0.06	6.99	10.53	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.03
61	0.03	0.03	3880.72	493.14	2.14351	0.06	6.97	10.52	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.03
62	0.03	0.03	3878.89	493.14	2.14278	0.06	6.96	10.51	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.03
63	0.02	0.02	3877.12	493.14	2.14208	0.05	6.94	10.50	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.03
64	0.02	0.02	3875.38	493.14	2.14139	0.05	6.93	10.50	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.03
65	0.02	0.02	3873.69	493.14	2.14072	0.05	6.91	10.49	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.03
66	0.02	0.02	3872.04	493.14	2.14006	0.04	6.90	10.48	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.03
67	0.02	0.02	3870.43	493.14	2.13942	0.04	6.88	10.47	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.03
68	0.01	0.01	3868.86	493.14	2.1388	0.04	6.87	10.47	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.03
69	0.01	0.01	3867.32	493.14	2.13819	0.04	6.86	10.46	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
70	0.01	0.01	3865.82	493.14	2.13759	0.04	6.84	10.45	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
71	0.01	0.01	3864.36	493.14	2.13701	0.03	6.83	10.45	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
72	0.01	0.01	3862.93	493.14	2.13645	0.03	6.82	10.44	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
73	0.01	0.01	3861.53	493.14	2.13589	0.03	6.81	10.44	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
74	0.01	0.01	3860.16	493.14	2.13535	0.03	6.80	10.43	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
75	0.01	0.01	3858.83	493.13	2.13482	0.03	6.78	10.42	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
76	0.01	0.01	3857.52	493.13	2.1343	0.03	6.77	10.42	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
77	0.01	0.01	3856.25	493.13	2.13379	0.03	6.76	10.41	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
78	0.01	0.01	3855.00	493.13	2.1333	0.03	6.75	10.41	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02
79	0.00	0.00	3853.78	493.13	2.13281	0.02	6.74	10.40	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
80	0.00	0.00	3852.58	493.13	2.13234	0.02	6.73	10.40	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
81	0.00	0.00	3851.42	493.13	2.13187	0.02	6.72	10.39	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
82	0.00	0.00	3850.27	493.13	2.13142	0.02	6.71	10.39	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
83	0.00	0.00	3849.15	493.13	2.13098	0.02	6.70	10.38	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
84	0.00	0.00	3848.06	493.13	2.13054	0.02	6.69	10.38	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
85	0.00	0.00	3846.99	493.13	2.13012	0.02	6.68	10.37	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
86	0.00	0.00	3845.94	493.13	2.1297	0.02	6.67	10.37	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
87	0.00	0.00	3844.91	493.13	2.12929	0.02	6.67	10.36	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
88	0.00	0.00	3843.90	493.13	2.12889	0.02	6.66	10.36	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
89	0.00	0.00	3842.92	493.13	2.1285	0.02	6.65	10.35	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
90	0.00	0.00	3841.95	493.13	2.12811	0.02	6.64	10.35	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
91	0.00	0.00	3841.00	493.13	2.12774	0.02	6.63	10.35	0.74	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
92	0.00	0.00	3840.07	493.13	2.12737	0.02	6.62	10.34	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
93	0.00	0.00	3839.17	493.13	2.12701	0.02	6.62	10.34	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
94	0.00	0.00	3838.27	493.13	2.12665	0.02	6.61	10.33	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
95	0.00	0.00	3837.40	493.13	2.12631	0.02	6.60	10.33	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
96	0.00	0.00	3836.54	493.13	2.12597	0.01	6.60	10.33	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
97	0.00	0.00	3835.70	493.13	2.12563	0.01	6.59	10.32	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
98	0.00	0.00	3834.88	493.13	2.1253	0.01	6.58	10.32	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
99	0.00	0.00	3834.07	493.12	2.12498	0.01	6.57	10.31	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
100	0.00	0.00	3833.28	493.12	2.12467	0.01	6.57	10.31	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
101	0.00	0.00	3832.50	493.12	2.12436	0.01	6.56	10.31	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
102	0.00	0.00	3831.73	493.12	2.12405	0.01	6.55	10.30	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
103	0.00	0.00	3830.98	493.12	2.12376	0.01	6.55	10.30	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
104	0.00	0.00	3830.25	493.12	2.12346	0.01	6.54	10.30	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
105	0.00	0.00	3829.53	493.12	2.12318	0.01	6.54	10.29	0.72	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
106	0.00	0.00	3828.82	493.12	2.12289	0.01	6.53	10.29	0.72	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
107	0.00	0.00	3828.12	493.12	2.12262	0.01	6.52	10.29	0.72	0.72	0.00	0.00	0.00	0.							

Townhomes on Bennett

Pond Routing



Townhomes on Bennett			
Routing Table (using HRM's "Chainsaw" method)			
Qp (cfs) =	6.14		
Tp (min) =	21.0	10-yr	
dT (min) =	2	Suggested Time Increment (Tp/10)	
dT (min) =	1	Selected Time Increment	
Ref. Ele. =	491.00	(Bottom Stone)	
Results:			
Max. Total Pipe Outflow	2.73	cfs	
Max Peak Redux Office	2.73	cfs	
Max Weir	-	cfs	
Max Primary Riser	-	cfs	
Max. Emer. Weir Outflow	-	cfs	
Max. Water Surf. Ele.	494.05	ft	
Max. Stage:	3.05	ft	
Max. Storage:	5.999	cu ft	
50% Infiltration=	0.2314	cfs	
Storage @ office =	2.697	cfs	>2,677 req'd
492.66			

Structure Data													
Peak Redux Orifice				Weir				Adjacent Drainage(should not activate)				Emerg. Weirs-NA	
Riser:		Barrel:		Weir:		Orifice Equation:		Rect Riser:		Barrel:		Emergency Weir-NA	
Dia. (in)	24	Dia. (in)	10.3	Length(ft)	4.00	Height(ft)	4.00	Width(in)	48.00				
Inv Ele. (ft)	492.66	Inv Ele. (ft)	492.66	Height(ft)	1.000	Height(ft)	1.000	Length(in)	45.00	Dia. (in)	15	Cw =	3
Cd	3.3	Inv Elt (ft)	492.66	El. (ft)	495.4	Inv Elt (ft)	495.4	Top Ele. (ft)	497.1	Inv Elt (ft)	493.1	Ele. (ft)	1000
Cd	0.6	Cd	0.6	Cd	3.3	Cd	0.6	Cd	0.6	Cd	0.6	Length(ft)	
				Cd	0.6			Cd	3.3				
Weir Equation: Q = Cw*L*H^(3/2)		Orifice Equation: Q = Cd*A*(2*g*h)^(1/2)		Weir Equation: Q = Cw*L*H^(3/2)		Orifice Equation: Q = Cd*A*(2*g*h)^(1/2)		Weir Equation: Q = Cw*L*H^(3/2)		Orifice Equation: Q = Cd*A*(2*g*h)^(1/2)			

b	-0.054632
c1	0.001313
c2	-5.75E-07
c3	1.98E-10
c4	-3.78E-14
c5	3.66E-18
c6	-1.35E-22

>2,677 req'd, also does not include infiltration or site piping storage (because avg assumed invert is > orifice elevation)

Infiltration during first 17 minutes is approximate 193 cf

actual site piping volume at elevation 191.91 is 37 cf

total storage is therefore = 2,927 cf

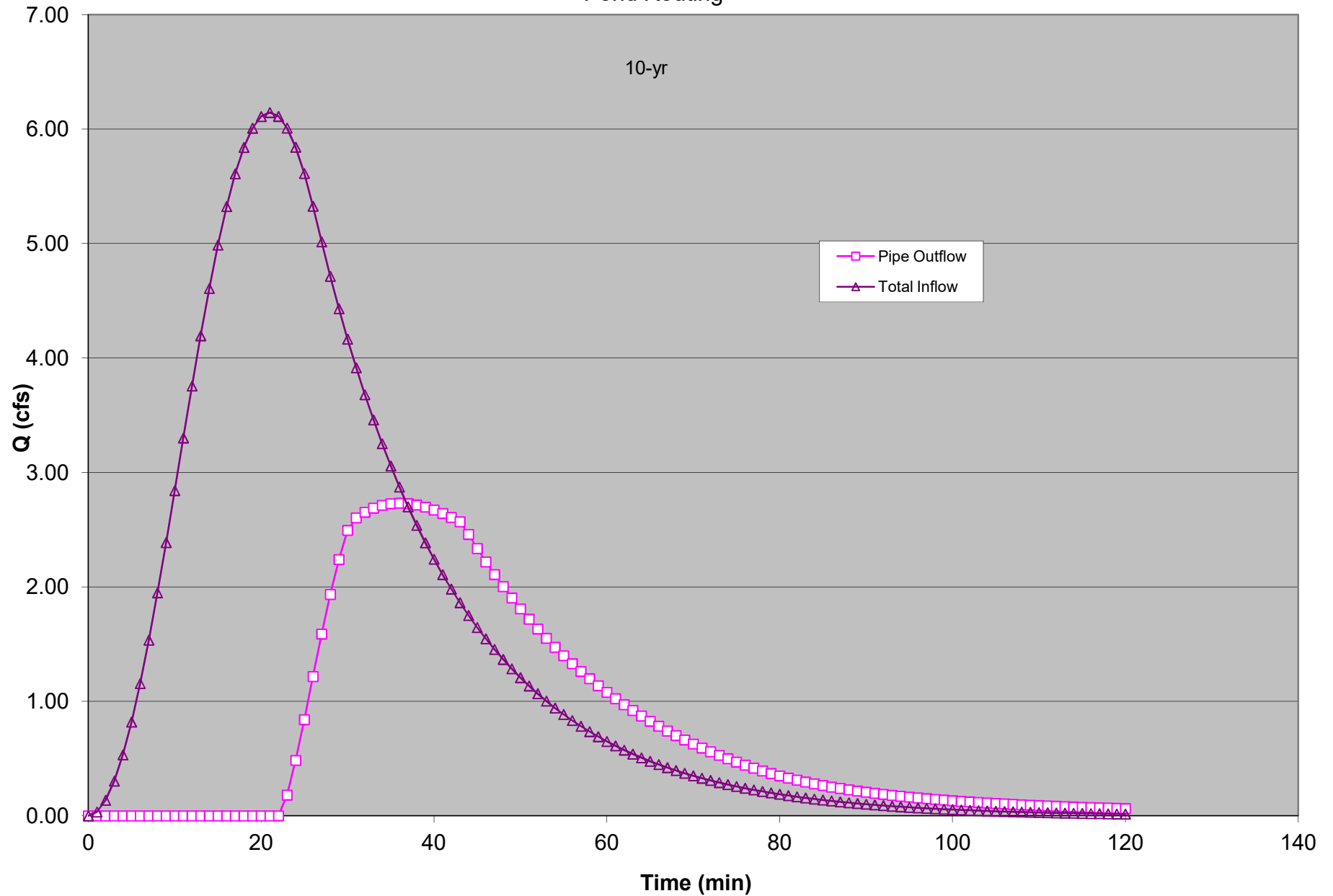
*NOTE: Check Primary Riser Barrel to ensure total outflow is always less than or equal to Primary Barrel flow.

Routing Table:						Computed Outflow Data:																	
Time	R.O. Inflow	Total Inflow	Storage	Wtr Surf. Ele	Stage	Total Outflow	Circular 1 (WQ)				Weir				Rectangular Riser Primary				Emergency Weir	Infiltration Outflow	Pipe Outflow*		
(min)	(cfs)	(cfs)	(cf)	(ft)	(ft)	(cfs)	Riser (weir)	Riser (orifice)	Barrel	Control	Weir	(orifice)	Orifice	2-Control	Riser (weir)	Riser (orifice)	Barrel*	Control					
0	0.00	0.00	0.00	491.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1	0.03	0.03	0.00	490.95	-0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
2	0.14	0.14	0.00	490.95	-0.05	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00
3	0.30	0.30	0.00	490.95	-0.05	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
4	0.53	0.53	4.37	490.95	-0.05	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
5	0.82	0.82	22.50	490.97	-0.03	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
6	1.16	1.16	57.81	491.02	0.02	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
7	1.54	1.54	113.31	491.09	0.09	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
8	1.95	1.95	191.56	491.18	0.18	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
9	2.39	2.39	294.63	491.29	0.29	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
10	2.84	2.84	424.02	491.41	0.41	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
11	3.30	3.30	580.64	491.55	0.55	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
12	3.75	3.75	764.81	491.69	0.69	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
13	4.19	4.19	976.22	491.83	0.83	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
14	4.61	4.61	1213.95	491.97	0.97	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
15	4.99	4.99	1476.50	492.11	1.11	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
16	5.32	5.32	1761.82	492.25	1.25	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
17	5.61	5.61	2067.34	492.39	1.39	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
18	5.84	5.84	2390.04	492.53	1.53	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
19	6.01	6.01	2726.52	492.67	1.67	0.23	0.03	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
20	6.11	6.11	3073.08	492.82	1.82	0.23	1.29	6.00	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
21	6.14	6.14	3425.79	492.96	1.96	0.23	3.43	8.30	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
22	6.11	6.11	3780.56	493.10	2.10	0.23	6.13	10.08	0.68	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
23	6.01	6.01	4133.25	493.24	2.24	0.41	9.24	11.55	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.23	0.18
24	5.84	5.84	4468.97	493.38	2.38	0.72	12.55	12.80	1.39	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.23	0.48
25	5.61	5.61	4776.48	493.50	2.50	1.07	15.91	13.85	1.76	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.23	0.84
26	5.33	5.33	5048.85	493.61	2.61	1.45	19.18	14.74	2.01	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22	0.00	0.00	0.00	0.23	1.22
27	5.01	5.01	5281.48	493.71	2.71	1.82	22.26	15.49	2.19	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	0.00	0.00	0.00	0.23	1.59
28	4.71	4.71	5473.13	493.79	2.79	2.17	25.03	16.11	2.33	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.93	0.00	0.00	0.00	0.23	1.93
29	4.43	4.43	5626.00	493.86	2.86	2.47	27.42	16.60	2.45	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.24	0.00	0.00	0.00	0.23	2.24
30	4.16	4.16	5743.59	493.92	2.92	2.73	29.39	16.99	2.54	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.49	0.00	0.00	0.00	0.23	2.49
31	3.91	3.91	5829.93	493.96	2.96	2.83	30.91	17.28	2.60	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.23	2.60
32	3.68	3.68	5894.10	494.03	3.00	2.88	32.00	17.50	2.65	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.85	0.00	0.00	0.00	0.23	2.65
33	3.46	3.46	5942.49	494.02	3.02	2.92	33.00	17.66	2.69	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.23	2.69
34	3.26	3.26	5974.82	494.04	3.04	2.84	33.63	17.77	2.71	2.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.05	0.00	0.00	0.00	0.23	2.71
35	3.06	3.06	5993.23	494.05	3.05	2.96	33.99	17.84	2.73	2.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.10	0.00	0.00	0.00	0.23	2.73
36	2.87	2.87	5999.09	494.05	3.05	2.96	34.10	17.86	2.73	2.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.12	0.00	0.00	0.00	0.23	2.73
37	2.70	2.70	5993.67	494.05	3.05	2.96	34.00	17.84	2.73	2.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.10	0.00	0.00	0.00	0.23	2.73
38	2.54	2.54	5978.16	494.04	3.04	2.95	33.69	17.78	2.72	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.06	0.00	0.00	0.00	0.23	2.72
39	2.39	2.39	5953.63	494.03	3.03	2.93	33.22	17.70	2.70	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.23	2.70
40	2.24	2.24	5921.08	494.01	3.01	2.90	32.59	17.59	2.67	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0.00	0.00	0.00	0.23	2.67
41	2.11	2.11	5881.43	493.99	2.99	2.87	31.85	17.45	2.64	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.82	0.00	0.00	0.00	0.23	2.64
42	1.98	1.98	5835.50	493.97	2.97	2.84	31.01	17.30	2.61	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.23	2.61
43	1.86	1.86	5784.06	493.94	2.94	2.80	30.09	17.13	2.57	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.59	0.00	0.00	0.00	0.23	2.57
44	1.75	1.75	5727.82	493.91	2.91	2.69	29.12	16.94	2.53	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46	0.00	0.00	0.00	0.23	2.46
45	1.65	1.65	5671.46	493.89	2.89	2.57	28.17	16.75	2.48	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.34	0.00	0.00	0.00	0.23	2.34
46	1.55	1.55	5616.19	493.86	2.86	2.45	27.26	16.57	2.44	2.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.22	0.00	0.00	0.00	0.23	2.22
47	1.45	1.45	5562.00	493.83	2.83	2.34	26.40	16.39	2.40	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.23	2.11
48	1.37	1.37	5508.88	493.81	2.81	2.23	25.57	16.22	2.36	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.23	2.00

49	1.28	1.28	5456.83	493.79	2.79	2.13	24.78	16.05	2.32	2.32	0.00	0.00	0.00	0.00	0.00	0.00	1.90	0.00	0.00	0.23	1.90
50	1.21	1.21	5405.85	493.76	2.76	2.04	24.03	15.89	2.28	2.28	0.00	0.00	0.00	0.00	0.00	0.00	1.81	0.00	0.00	0.23	1.81
51	1.14	1.14	5355.93	493.74	2.74	1.95	23.30	15.73	2.25	2.25	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.23	1.72
52	1.07	1.07	5307.07	493.72	2.72	1.86	22.61	15.57	2.21	2.21	0.00	0.00	0.00	0.00	0.00	0.00	1.63	0.00	0.00	0.23	1.63
53	1.00	1.00	5259.26	493.70	2.70	1.78	21.95	15.42	2.17	2.17	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.23	1.55
54	0.94	0.94	5212.51	493.68	2.68	1.70	21.31	15.27	2.14	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.47	0.00	0.00	0.23	1.47
55	0.89	0.89	5166.80	493.66	2.66	1.63	20.70	15.12	2.10	2.10	0.00	0.00	0.00	0.00	0.00	0.00	1.40	0.00	0.00	0.23	1.40
56	0.83	0.83	5122.14	493.64	2.64	1.56	20.12	14.98	2.06	2.06	0.00	0.00	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.23	1.33
57	0.78	0.78	5078.50	493.62	2.62	1.49	19.56	14.83	2.03	2.03	0.00	0.00	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.23	1.26
58	0.74	0.74	5035.90	493.60	2.60	1.43	19.02	14.70	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.23	1.20
59	0.69	0.69	4994.30	493.59	2.59	1.37	18.50	14.56	1.96	1.96	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.00	0.00	0.23	1.14
60	0.65	0.65	4953.71	493.57	2.57	1.31	18.00	14.43	1.93	1.93	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.23	1.08
61	0.61	0.61	4914.12	493.55	2.55	1.25	17.52	14.30	1.90	1.90	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.23	1.02
62	0.57	0.57	4875.50	493.54	2.54	1.20	17.06	14.17	1.86	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.23	0.97
63	0.54	0.54	4837.85	493.52	2.52	1.15	16.62	14.05	1.83	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.23	0.92
64	0.51	0.51	4801.15	493.51	2.51	1.10	16.19	13.93	1.80	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.23	0.87
65	0.48	0.48	4765.39	493.49	2.49	1.06	15.78	13.81	1.75	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.23	0.83
66	0.45	0.45	4730.55	493.48	2.48	1.01	15.38	13.69	1.71	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.23	0.78
67	0.42	0.42	4696.60	493.47	2.47	0.97	15.00	13.58	1.66	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.23	0.74
68	0.40	0.40	4663.55	493.45	2.45	0.93	14.64	13.47	1.62	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.23	0.70
69	0.37	0.37	4631.35	493.44	2.44	0.90	14.28	13.36	1.58	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.23	0.66
70	0.35	0.35	4600.01	493.43	2.43	0.86	13.94	13.25	1.55	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.23	0.63
71	0.33	0.33	4569.49	493.42	2.42	0.82	13.61	13.15	1.51	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.23	0.59
72	0.31	0.31	4539.78	493.40	2.40	0.79	13.30	13.04	1.47	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.23	0.56
73	0.29	0.29	4510.86	493.39	2.39	0.76	12.99	12.94	1.44	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.23	0.53
74	0.27	0.27	4482.71	493.38	2.38	0.73	12.69	12.84	1.41	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.23	0.50
75	0.26	0.26	4455.30	493.37	2.37	0.70	12.41	12.75	1.38	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.23	0.47
76	0.24	0.24	4428.63	493.36	2.36	0.67	12.14	12.65	1.35	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.23	0.44
77	0.23	0.23	4402.66	493.35	2.35	0.64	11.87	12.56	1.32	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.23	0.42
78	0.21	0.21	4377.63	493.34	2.34	0.61	11.62	12.47	1.29	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.23	0.39
79	0.20	0.20	4354.08	493.33	2.33	0.57	11.38	12.38	1.26	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.23	0.37
80	0.19	0.19	4331.88	493.32	2.32	0.54	11.16	12.30	1.24	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.23	0.35
81	0.18	0.18	4310.93	493.31	2.31	0.51	10.95	12.23	1.21	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.23	0.33
82	0.17	0.17	4291.14	493.31	2.31	0.48	10.75	12.15	1.19	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.23	0.31
83	0.16	0.16	4272.43	493.30	2.30	0.45	10.57	12.08	1.17	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.23	0.30
84	0.15	0.15	4254.71	493.29	2.29	0.43	10.40	12.02	1.15	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.23	0.28
85	0.14	0.14	4237.92	493.28	2.28	0.40	10.23	11.95	1.13	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.23	0.27
86	0.13	0.13	4221.99	493.28	2.28	0.38	10.08	11.89	1.12	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.23	0.25
87	0.12	0.12	4206.87	493.27	2.27	0.36	9.93	11.84	1.10	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.23	0.24
88	0.11	0.11	4192.50	493.27	2.27	0.34	9.80	11.78	1.09	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.23	0.23
89	0.11	0.11	4178.83	493.26	2.26	0.32	9.67	11.73	1.07	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.23	0.22
90	0.10	0.10	4165.82	493.26	2.26	0.31	9.54	11.68	1.06	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.23	0.21
91	0.10	0.10	4153.43	493.25	2.25	0.29	9.43	11.63	1.05	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.23	0.20
92	0.09	0.09	4141.61	493.25	2.25	0.28	9.32	11.59	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.23	0.19
93	0.08	0.08	4130.33	493.24	2.24	0.26	9.21	11.54	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.23	0.18
94	0.08	0.08	4119.56	493.24	2.24	0.25	9.11	11.50	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.23	0.17
95	0.07	0.07	4109.27	493.23	2.23	0.24	9.01	11.46	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.23	0.16
96	0.07	0.07	4099.43	493.23	2.23	0.23	8.92	11.42	0.99	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.23	0.16
97	0.07	0.07	4090.02	493.23	2.23	0.22	8.84	11.38	0.98	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.23	0.15
98	0.06	0.06	4081.00	493.22	2.22	0.21	8.75	11.35	0.97	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.23	0.14
99	0.06	0.06	4072.37	493.22	2.22	0.20	8.67	11.31	0.96	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.23	0.14
100	0.05	0.05	4064.09	493.22	2.22	0.19	8.60	11.28	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.23	0.13
101	0.05	0.05	4056.15	493.21	2.21	0.18	8.52	11.25	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.23	0.13
102	0.05	0.05	4048.52	493.21	2.21	0.17	8.46	11.22	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.23	0.12
103	0.05	0.05	4041.20	493.21	2.21	0.16	8.39	11.19	0.93	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.23	0.12
104	0.04	0.04	4034.17	493.20	2.20	0.16	8.32	11.16	0.92	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.23	0.11
105	0.04	0.04	4027.41	493.20	2.20	0.15	8.26	11.13	0.92	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.23	0.11
106	0.04	0.04	4020.91	493.20	2.20	0.14	8.20	11.11	0.91	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.23	0.10
107	0.04	0.04	4014.65	493.20	2.20	0.14	8.15	11.08	0.90	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.23	0.10
108	0.03	0.03	4008.63	493.19	2.19																

Townhomes on Bennett

Pond Routing



Townhomes on Bennett			
Routing Table (using HRM's "Chainsaw" method)			
Qp (cfs) =	8.21	100-yr	
Tp (min) =	27.9		
dT (min) =	3	Suggested Time Increment (Tp/10)	
dT (min) =	1	Selected Time Increment	
Ref. Ele. = 491 (Bottom Stone)			
Results:			
Max. Total Pipe Outflow	6.07	cfs	
Max Peak Redux Orifice	4.45	cfs	
Max Peak Redux Weir	1.62	cfs	
Max Primary Riser	-	cfs	
Max. Emer Weir Outflow	-	cfs	
Max. Water Surf. Ele.	495.65	ft	
Max. Stage:	4.65	ft	
Max. Storage:	7.995	cu.ft.	
50% Infiltration=	0.2314	cfs	

Structure Data									
Peak Redux Orifice				Weir		Adjacent Drainage(should not activate)			
Riser:		Barrel:		Weir:		Orifice Equation:		Rect Riser:	
Length(ft)	4.00	Length(ft)	4.00	Length(ft)	4.00	Length(in)	48.00	Width(in)	48.00
Dia. (in)	24	Dia. (in)	10.3	Height(ft)	1.000	Height(ft)	1.000	Dia. (in)	15
Inv Ele. (ft)	492.66	Inv Ele. (ft)	492.66	El. (ft)	495.4	Inv Ele. (ft)	495.4	Top Ele. (ft)	497.1
Cw	3.3	Cd	0.6	Cw	3.3	Cd	0.6	Cw	3.3
Cd	0.6	Cd	0.6	Cd	0.6	Cd	0.6	Cd	0.6
Weir Equation:		Orifice Equation:		Weir Equation:		Orifice Equation:		Weir Equation:	
Q = Cw*L*H^(3/2)		Q = Cd*A*(2*g*h)^(1/2)		Q = Cw*L*H^(3/2)		Q = Cd*A*(2*g*h)^(1/2)		Q = Cw*L*H^(3/2)	

b	-0.054632
c1	0.001313
c2	-5.75E-07
c3	1.98E-10
c4	-3.78E-14
c5	3.66E-18
c6	-1.35E-22

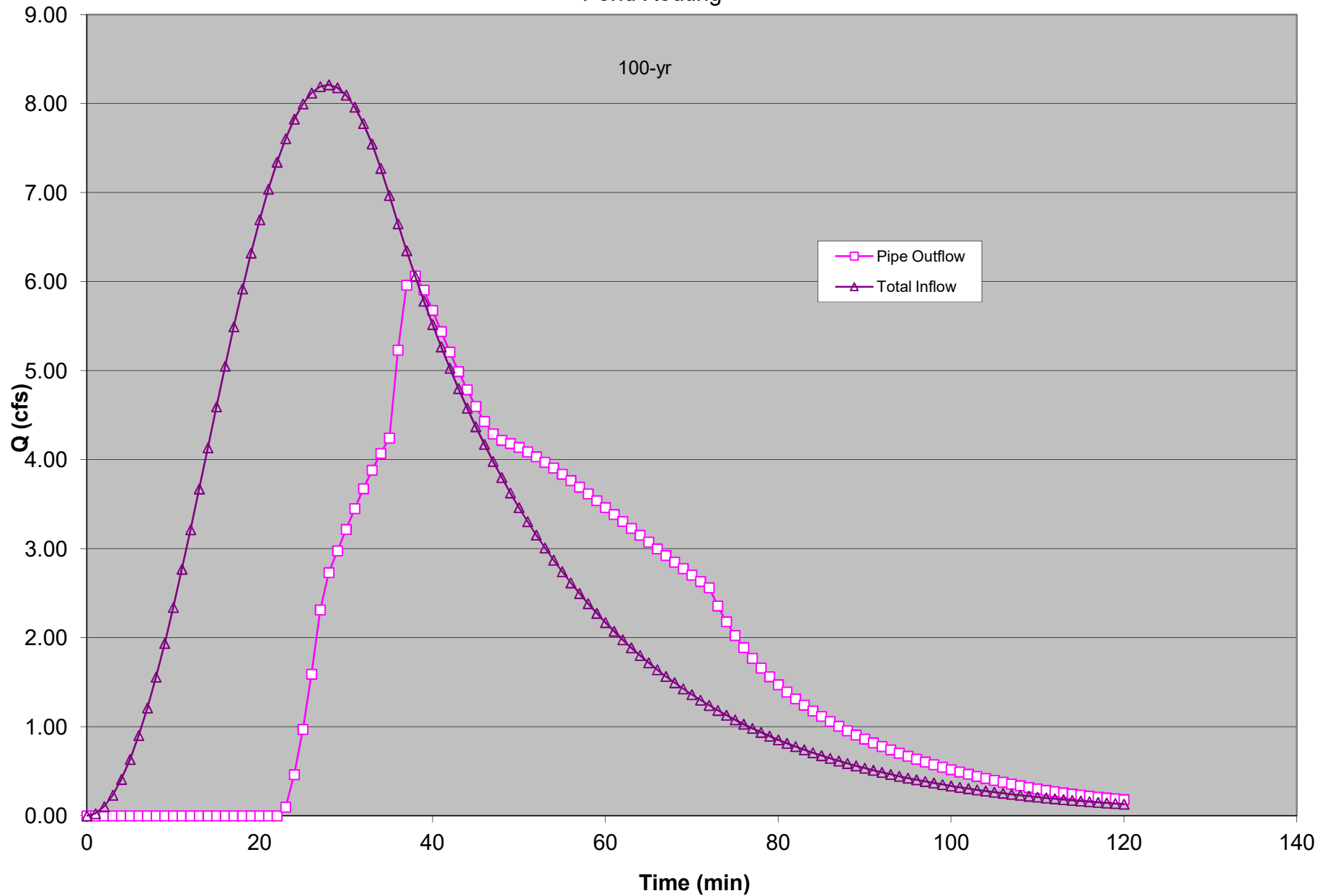
*NOTE: Check Primary Riser Barrel to ensure total outflow is always less than or equal to Primary Barrel flow.

Routing Table:										Computed Outflow Data:									
Time	R.O. Inflow	Total Inflow	Storage	Wtr Surf. Ele	Stage	Total Outflow	Circular 1 (WQ)				Weir		Rectangular Riser Primary				Emergency Weir	Infiltration Outflow	Pipe Outflow*
(min)	(cfs)	(cfs)	(cf)	(ft)	(ft)	(cfs)	Riser (weir)	Riser (orifice)	Barrel	Control	Weir (orifice)	Orifice	2-Control	Riser (weir)	Riser (orifice)	Barrel*	Control		
0	0.00	0.00	0.00	491.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.03	0.03	0.00	490.95	-0.05463	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
2	0.10	0.10	0.00	490.95	-0.05463	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
3	0.23	0.23	0.00	490.95	-0.05463	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
4	0.41	0.41	0.06	490.95	-0.05455	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
5	0.63	0.63	0.78	490.95	-0.04054	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
6	0.90	0.90	34.97	490.99	-0.00939	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
7	1.21	1.21	75.28	491.04	0.04107	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
8	1.56	1.56	134.15	491.11	0.11168	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
9	1.94	1.94	213.76	491.20	0.2017	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
10	2.34	2.34	316.07	491.31	0.30893	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
11	2.77	2.77	442.72	491.43	0.4299	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
12	3.22	3.22	595.06	491.56	0.56052	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
13	3.67	3.67	774.10	491.70	0.69671	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
14	4.13	4.13	980.53	491.84	0.8352	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
15	4.60	4.60	1214.66	491.97	0.97407	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
16	5.05	5.05	1476.48	492.11	1.11302	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
17	5.49	5.49	1765.61	492.25	1.25312	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
18	5.92	5.92	2081.35	492.40	1.39631	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
19	6.32	6.32	2422.62	492.54	1.54452	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
20	6.70	6.70	2788.06	492.70	1.69891	0.23	0.16	2.98	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
21	7.04	7.04	3175.97	492.86	1.85947	0.23	1.85	6.76	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
22	7.34	7.34	3584.38	493.03	2.02522	0.23	4.58	9.14	0.51	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
23	7.61	7.61	4011.06	493.20	2.19511	0.33	8.12	11.07	0.90	0.90	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.23	0.10
24	7.83	7.83	4447.66	493.37	2.36719	0.69	12.33	12.72	1.37	1.37	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.23	0.46
25	8.00	8.00	4875.55	493.54	2.5381	1.20	17.06	14.17	1.86	1.86	0.00	0.00	0.00	0.00	0.00	0.97	0.00	0.23	0.97
26	8.12	8.12	5283.24	493.71	2.70909	1.82	22.28	15.49	2.19	2.19	0.00	0.00	0.00	0.00	0.00	1.59	0.00	0.23	1.59
27	8.19	8.19	5681.05	493.88	2.88154	2.54	27.99	16.72	2.48	2.48	0.00	0.00	0.00	0.00	0.00	2.31	0.00	0.23	2.31
28	8.21	8.21	5999.84	494.05	3.05382	3.26	34.12	17.86	2.73	2.73	0.00	0.00	0.00	0.00	0.00	3.12	0.00	0.23	3.12
29	8.18	8.18	6314.69	494.23	3.23395	3.95	40.94	18.98	2.98	2.98	0.00	0.00	0.00	0.00	0.00	4.04	0.00	0.23	2.98
30	8.09	8.09	6612.95	494.43	3.42633	3.45	48.67	20.10	3.22	3.22	0.00	0.00	0.00	0.00	0.00	4.94	0.00	0.23	3.22
31	7.96	7.96	6891.75	494.63	3.62891	3.68	57.24	21.22	3.45	3.45	0.00	0.00	0.00	0.00	0.00	5.61	0.00	0.23	3.45
32	7.78	7.78	7148.43	494.83	3.83384	3.91	66.46	22.30	3.67	3.67	0.00	0.00	0.00	0.00	0.00	6.21	0.00	0.23	3.67
33	7.55	7.55	7380.69	495.04	4.03711	4.11	75.99	23.32	3.88	3.88	0.00	0.00	0.00	0.00	0.00	6.76	0.00	0.23	3.88
34	7.27	7.27	7586.67	495.23	4.23058	4.30	85.46	24.25	4.07	4.07	0.00	0.00	0.00	0.00	0.00	7.24	0.00	0.23	4.07
35	6.97	6.97	7764.92	495.41	4.40731	4.47	94.42	25.07	4.24	4.24	0.01	1.65	0.01	0.01	0.00	7.65	0.00	0.23	4.24
36	6.65	6.65	7914.52	495.56	4.56154	5.46	102.48	25.77	4.37	4.37	0.86	7.74	0.86	0.86	0.00	7.99	0.00	0.23	5.23
37	6.35	6.35	7985.83	495.64	4.63671	6.19	107.49	26.10	4.44	4.44	1.52	8.37	1.52	1.52	0.00	8.18	0.00	0.23	5.96
38	6.06	6.06	7995.21	495.65	4.64667	6.30	107.02	26.14	4.45	4.45	1.62	8.57	1.62	1.62	0.00	8.18	0.00	0.23	6.07
39	5.78	5.78	7980.90	495.63	4.63148	6.14	106.21	26.08	4.44	4.44	1.47	8.27	1.47	1.47	0.00	8.15	0.00	0.23	5.91
40	5.52	5.52	7959.64	495.61	4.60899	5.91	105.00	25.98	4.42	4.42	1.26	8.80	1.26	1.26	0.00	8.10	0.00	0.23	5.68
41	5.27	5.27	7936.30	495.58	4.58439	5.67	102.35	25.87	4.39	4.39	1.05	8.27	1.05	1.05	0.00	8.04	0.00	0.23	5.21
42	5.03	5.03	7912.12	495.56	4.55903	5.44	102.35	25.76	4.37	4.37	0.84	7.68	0.84	0.84	0.00	7.99	0.00	0.23	4.99
43	4.80	4.80	7887.37	495.53	4.53319	5.22	100.98	25.64	4.35	4.35	0.64	7.03	0.64	0.64	0.00	7.93	0.00	0.23	4.79
44	4.58	4.58	7851.99	495.51	4.50682	5.02	99.59	25.52	4.33	4.33	0.46	6.29	0.46	0.46	0.00	7.87	0.00	0.23	4.60
45	4.37	4.37	7835.74	495.48	4.4797	4.83	98.17	25.40	4.30	4.30	0.30	5.44	0.30	0.30	0.00	7.81	0.00	0.23	4.43
46	4.17	4.17	7808.27	495.45	4.45148	4.65	96.70	25.27	4.28	4.28	0.15	4.37	0.15	0.15	0.00	7.75	0.00	0.23	4.29
47	3.98	3.98	7778.94	495.42	4.42155	4.52	95.15	25.14	4.25	4.25	0.04	2.63	0.04	0.04	0.00	7.68	0.00	0.23	4.22
48	3.80	3.80	7746.59	495.39	4.38876	4.45	93.46	24.99	4.22	4.22	0.00	0.00	0.00	0.00	0.00	7.61	0.00	0.23	4.22

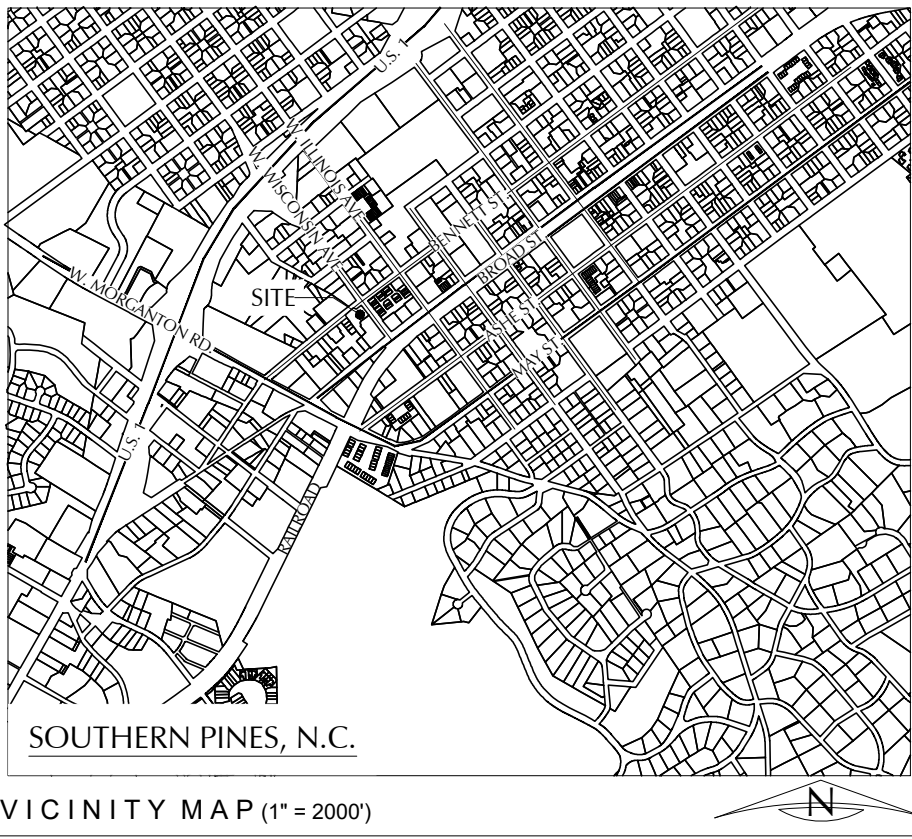
49	3.63	3.63	7707.65	495.35	4.34964	4.41	91.46	24.81	4.18	4.18	0.00	0.00	0.00	0.00	0.00	0.00	7.52	0.00	0.00	0.23	4.18
50	3.46	3.46	7660.48	495.30	4.30277	4.37	89.08	24.59	4.14	4.14	0.00	0.00	0.00	0.00	0.00	0.00	7.41	0.00	0.00	0.23	4.14
51	3.30	3.30	7606.02	495.25	4.24936	4.32	86.39	24.34	4.09	4.09	0.00	0.00	0.00	0.00	0.00	0.00	7.28	0.00	0.00	0.23	4.09
52	3.15	3.15	7545.10	495.19	4.19057	4.26	83.47	24.06	4.03	4.03	0.00	0.00	0.00	0.00	0.00	0.00	7.14	0.00	0.00	0.23	4.03
53	3.01	3.01	7478.51	495.13	4.12749	4.20	80.37	23.76	3.97	3.97	0.00	0.00	0.00	0.00	0.00	0.00	6.99	0.00	0.00	0.23	3.97
54	2.87	2.87	7406.96	495.06	4.06111	4.14	77.15	23.44	3.91	3.91	0.00	0.00	0.00	0.00	0.00	0.00	6.82	0.00	0.00	0.23	3.91
55	2.74	2.74	7331.09	494.99	3.99235	4.07	73.86	23.10	3.84	3.84	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00	0.00	0.23	3.84
56	2.62	2.62	7251.49	494.92	3.92205	4.00	70.54	22.75	3.77	3.77	0.00	0.00	0.00	0.00	0.00	0.00	6.45	0.00	0.00	0.23	3.77
57	2.50	2.50	7168.69	494.85	3.85092	3.92	67.24	22.39	3.69	3.69	0.00	0.00	0.00	0.00	0.00	0.00	6.26	0.00	0.00	0.23	3.69
58	2.38	2.38	7083.16	494.78	3.77963	3.85	63.99	22.02	3.62	3.62	0.00	0.00	0.00	0.00	0.00	0.00	6.06	0.00	0.00	0.23	3.62
59	2.28	2.28	6995.33	494.71	3.7087	3.77	60.80	21.65	3.54	3.54	0.00	0.00	0.00	0.00	0.00	0.00	5.85	0.00	0.00	0.23	3.54
60	2.17	2.17	6905.59	494.64	3.63861	3.69	57.71	21.28	3.46	3.46	0.00	0.00	0.00	0.00	0.00	0.00	5.64	0.00	0.00	0.23	3.46
61	2.07	2.07	6814.27	494.57	3.56973	3.62	54.72	20.90	3.38	3.38	0.00	0.00	0.00	0.00	0.00	0.00	5.42	0.00	0.00	0.23	3.38
62	1.98	1.98	6721.69	494.50	3.50236	3.54	51.85	20.53	3.31	3.31	0.00	0.00	0.00	0.00	0.00	0.00	5.20	0.00	0.00	0.23	3.31
63	1.89	1.89	6628.11	494.44	3.43673	3.46	49.11	20.16	3.23	3.23	0.00	0.00	0.00	0.00	0.00	0.00	4.98	0.00	0.00	0.23	3.23
64	1.80	1.80	6533.78	494.37	3.37302	3.38	46.49	19.80	3.15	3.15	0.00	0.00	0.00	0.00	0.00	0.00	4.75	0.00	0.00	0.23	3.15
65	1.72	1.72	6438.93	494.31	3.31132	3.31	44.00	19.44	3.08	3.08	0.00	0.00	0.00	0.00	0.00	0.00	4.46	0.00	0.00	0.23	3.08
66	1.64	1.64	6343.76	494.25	3.25171	3.23	41.64	19.08	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	4.14	0.00	0.00	0.23	3.00
67	1.57	1.57	6248.43	494.19	3.19421	3.16	39.40	18.74	2.92	2.92	0.00	0.00	0.00	0.00	0.00	0.00	3.83	0.00	0.00	0.23	2.92
68	1.50	1.50	6153.13	494.14	3.13882	3.08	37.29	18.40	2.85	2.85	0.00	0.00	0.00	0.00	0.00	0.00	3.54	0.00	0.00	0.23	2.85
69	1.43	1.43	6057.99	494.09	3.0855	3.01	35.29	18.06	2.78	2.78	0.00	0.00	0.00	0.00	0.00	0.00	3.28	0.00	0.00	0.23	2.78
70	1.36	1.36	5963.17	494.03	3.03419	2.94	33.40	17.73	2.70	2.70	0.00	0.00	0.00	0.00	0.00	0.00	3.02	0.00	0.00	0.23	2.70
71	1.30	1.30	5868.79	493.98	2.98482	2.86	31.62	17.41	2.63	2.63	0.00	0.00	0.00	0.00	0.00	0.00	2.79	0.00	0.00	0.23	2.63
72	1.24	1.24	5774.98	493.94	2.93731	2.79	29.93	17.10	2.56	2.56	0.00	0.00	0.00	0.00	0.00	0.00	2.57	0.00	0.00	0.23	2.56
73	1.18	1.18	5681.86	493.89	2.89158	2.59	28.34	16.79	2.49	2.49	0.00	0.00	0.00	0.00	0.00	0.00	2.36	0.00	0.00	0.23	2.36
74	1.13	1.13	5597.58	493.85	2.85131	2.41	26.96	16.51	2.43	2.43	0.00	0.00	0.00	0.00	0.00	0.00	2.18	0.00	0.00	0.23	2.18
75	1.08	1.08	5520.72	493.82	2.81544	2.26	25.75	16.26	2.37	2.37	0.00	0.00	0.00	0.00	0.00	0.00	2.03	0.00	0.00	0.23	2.03
76	1.03	1.03	5450.02	493.78	2.78312	2.12	24.68	16.03	2.32	2.32	0.00	0.00	0.00	0.00	0.00	0.00	1.89	0.00	0.00	0.23	1.89
77	0.98	0.98	5384.52	493.75	2.75369	2.00	23.72	15.82	2.27	2.27	0.00	0.00	0.00	0.00	0.00	0.00	1.77	0.00	0.00	0.23	1.77
78	0.94	0.94	5323.45	493.73	2.72667	1.89	22.84	15.62	2.22	2.22	0.00	0.00	0.00	0.00	0.00	0.00	1.66	0.00	0.00	0.23	1.66
79	0.90	0.90	5266.21	493.70	2.70169	1.79	22.04	15.44	2.18	2.18	0.00	0.00	0.00	0.00	0.00	0.00	1.56	0.00	0.00	0.23	1.56
80	0.85	0.85	5212.31	493.68	2.67844	1.70	21.31	15.27	2.14	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.47	0.00	0.00	0.23	1.47
81	0.82	0.82	5161.34	493.66	2.65668	1.62	20.63	15.10	2.10	2.10	0.00	0.00	0.00	0.00	0.00	0.00	1.39	0.00	0.00	0.23	1.39
82	0.78	0.78	5112.97	493.64	2.63623	1.55	20.00	14.95	2.06	2.06	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.23	1.31
83	0.74	0.74	5066.92	493.62	2.61692	1.48	19.41	14.80	2.02	2.02	0.00	0.00	0.00	0.00	0.00	0.00	1.24	0.00	0.00	0.23	1.24
84	0.71	0.71	5022.97	493.60	2.59863	1.41	18.86	14.66	1.99	1.99	0.00	0.00	0.00	0.00	0.00	0.00	1.18	0.00	0.00	0.23	1.18
85	0.68	0.68	4980.92	493.58	2.58123	1.35	18.33	14.52	1.95	1.95	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.23	1.12
86	0.65	0.65	4940.59	493.56	2.56466	1.29	17.84	14.39	1.92	1.92	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.23	1.06
87	0.62	0.62	4901.85	493.55	2.54881	1.24	17.37	14.26	1.89	1.89	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00	0.23	1.01
88	0.59	0.59	4864.57	493.53	2.53363	1.19	16.93	14.14	1.85	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.00	0.00	0.23	0.96
89	0.56	0.56	4828.64	493.52	2.51907	1.14	16.51	14.02	1.82	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.23	0.91
90	0.54	0.54	4793.97	493.51	2.50507	1.09	16.11	13.91	1.79	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.00	0.23	0.86
91	0.51	0.51	4760.47	493.49	2.49158	1.05	15.72	13.79	1.74	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.23	0.82
92	0.49	0.49	4728.07	493.48	2.47858	1.01	15.36	13.69	1.70	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.23	0.78
93	0.47	0.47	4696.71	493.47	2.46602	0.97	15.00	13.58	1.66	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.23	0.74
94	0.44	0.44	4666.31	493.45	2.45389	0.94	14.67	13.48	1.63	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.23	0.70
95	0.42	0.42	4636.84	493.44	2.44214	0.90	14.34	13.38	1.59	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.23	0.67
96	0.41	0.41	4608.23	493.43	2.43076	0.87	14.03	13.28	1.56	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.23	0.64
97	0.39	0.39	4580.46	493.42	2.41973	0.84	13.73	13.18	1.52	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.23	0.61
98	0.37	0.37	4553.47	493.41	2.40903	0.81	13.44	13.09	1.49	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.23	0.58
99	0.35	0.35	4527.23	493.40	2.39864	0.78	13.16	13.00	1.46	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.23	0.55
100	0.34	0.34	4501.71	493.39	2.38854	0.75	12.89	12.91	1.43	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.23	0.52
101	0.32	0.32	4476.88	493.38	2.37873	0.72	12.63	12.82	1.40	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.23	0.49
102	0.31	0.31	4452.70	493.37	2.36918	0.70	12.38	12.74	1.37	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.23	0.47
103	0.29	0.29	4429.14	493.36	2.35988	0.67	12.14	12.65	1.35	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.23	0.44
104	0.28	0.28	4406.19	493.35	2.35083	0.65	11.91	12.57	1.32	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.23	0.42
105	0.27	0.27	4383.82	493.34	2.34201	0.63	11.68	12.49	1.29	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.23	0.40
106	0.25	0.25	4362.01	493.33	2.33342	0.61	11.46	12.41	1.27	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.23	0.38
107	0.24	0.24	4340.73	493.33	2.32503	0.59	11														

Townhomes on Bennett

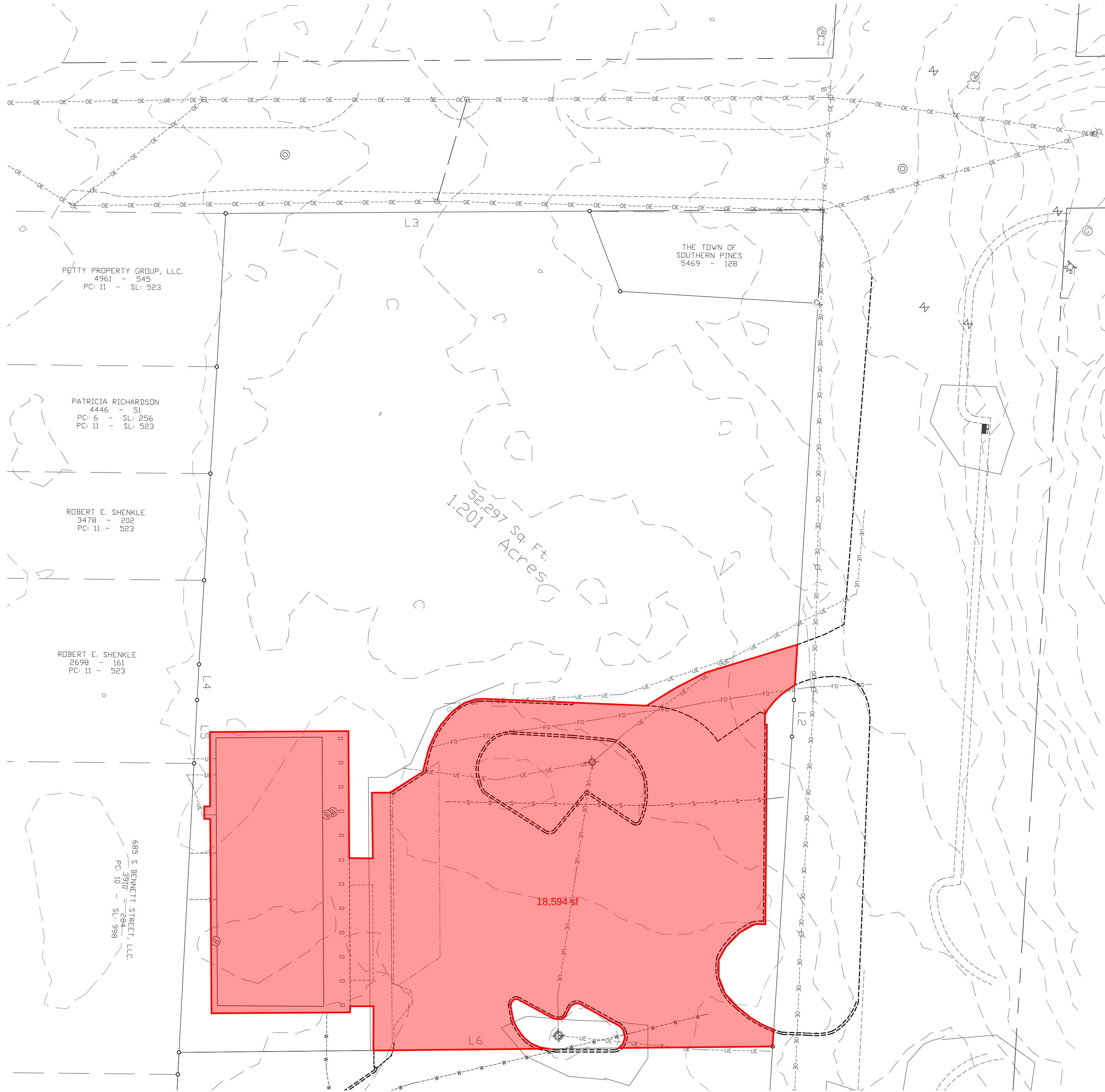
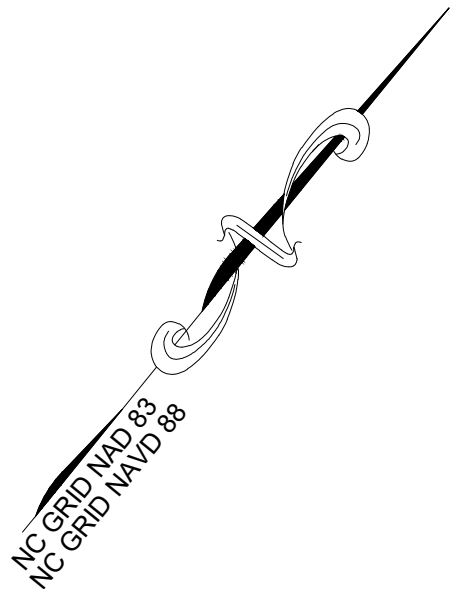
Pond Routing



S:\Webster, Colin\21027 Brownstones 2\CAD\21027\DWG\Plan Set\Current Plan Set\21027a_C1.0 Ex. Cond-Survey.dwg, Existing Conditions Survey, Nov. 04, 2021 -- 4:15:01 PM



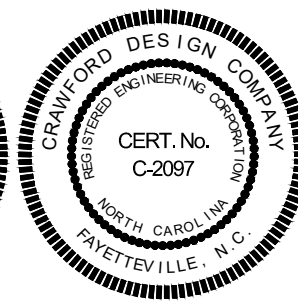
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EXISIST IA=18,594
Lot=52,291
IA=35.45%



Landscape Architecture ♦ Fayetteville, NC
Civil Engineering ♦ Southern Pines, NC
116 N. Cool Spring Street ♦ Fayetteville, NC 28301
Voice: 910-221-0033 ♦ Fax: 910-221-0035
www.crawforddsn.com



SEALS

[PLAN SET]

SURVEYING

JOHN G. MATTHEWS
Matthews Land Surveying & Mapping, PLLC
103 Monroe St Suite 104 Carthage, NC 28327
910-947-2871

REVISIONS	DATE	DESCRIPTION

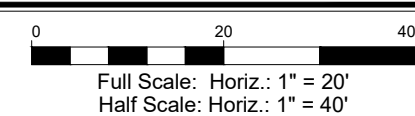
ASCOT CORPORATION, LLC
BRONWSTONES 2 TOWNHOMES

EXISTING CONDITIONS SURVEY

PROJECT DETAILS

Project Manager: KSL
CAD Technician: RFN/GER
Reviewed / Approved By:
Project Number: 21027

SCALE

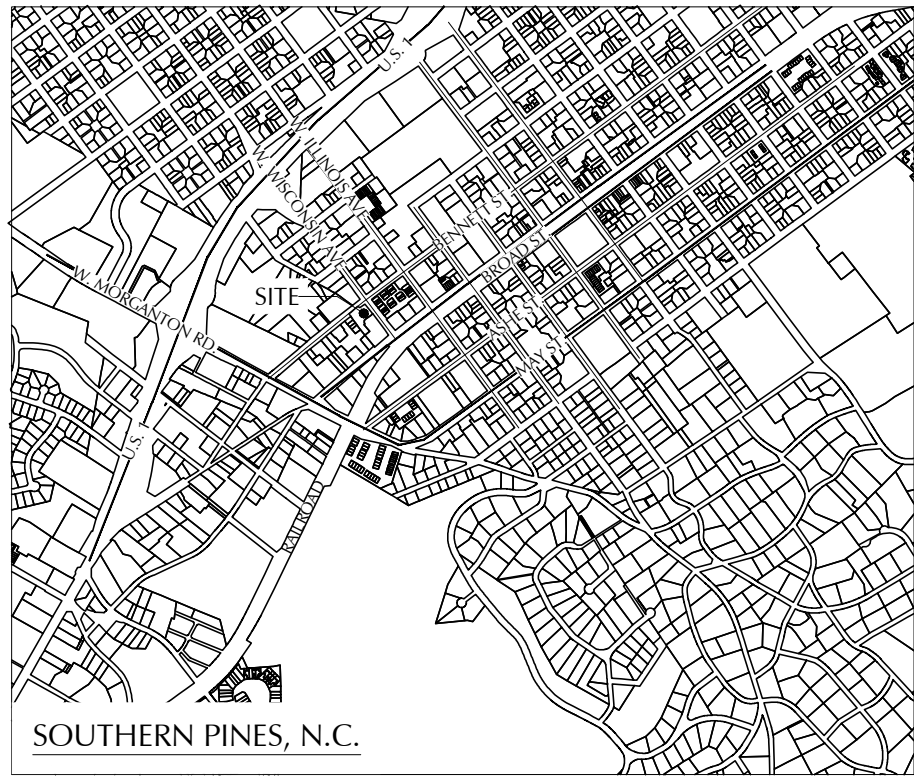


ISSUE DATE

08/13/2021

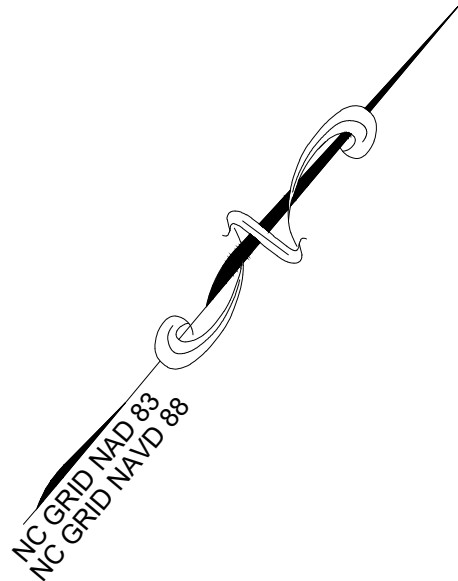
SHEET NUMBER

C1.0



VICINITY MAP (1" = 2000')

PLAT NOTES



MINOR SUBDIVISION FOR

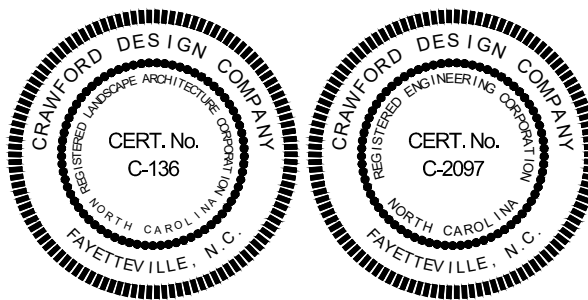
BANTEMBO, LLC

McNeill Township, Moore County,
North Carolina
November 15, 2021 SCALE 1" = 20'

Crawford
Design Company

LANDSCAPE
ARCHITECTURE
ENGINEERING
PLANNING

Landscape Architecture ♦ Fayetteville, NC
Civil Engineering ♦ Southern Pines, NC
116 N. Cool Spring Street ♦ Fayetteville, NC 28301
Voice: 910-221-0033 ♦ Fax: 910-221-0035
www.crawforddesign.com



SEALS

PRELIMINARY PLAT

REVISIONS		
0	mm-dd-yy	Description

TOWNHOMES ON BENNETT
BRONWSTONES ON BENNETT

PRELIMINARY PLAT

PROJECT DETAIL
Project Manager: KSL
CAD Technician: RFN/GER
Reviewed / Approved By:
Project Number: 21027

SCALE 0 20 40
Full Scale: Horiz.: 1" = 20' (24X36)
Half Scale: Horiz.: 1" = 40' (11X17)

ISSUE DATE 11/15/2021

SHEET NUMBER

PP-1.0

STATE OF NORTH CAROLINA

COUNTY OF MOORE

I, Beth Lynd, REVIEW OFFICER OF MOORE COUNTY, NORTH CAROLINA, CERTIFY THAT THE MAP OR PLAT WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING

REVIEW OFFICER: Beth Lynd DATE: 10/14/2021

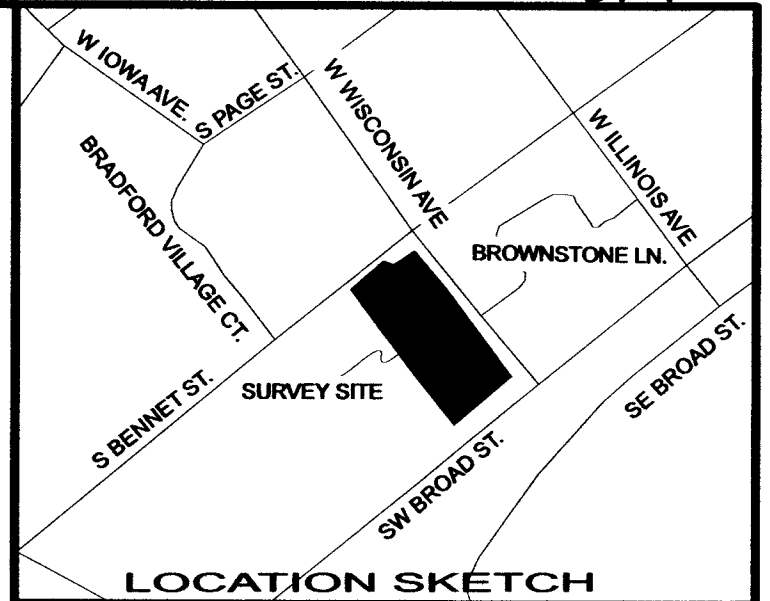
CERTIFICATE OF EXEMPTION

I, John G. Matthews, HEREBY CERTIFY THAT THE DIVISION OF PROPERTY SHOWN AND DESCRIBED HEREON IS EXEMPT FROM THE TOWN OF SOUTHERN PINES SUBDIVISION ORDINANCE BY DEFINITION AND/OR ORDINANCE

SUBDIVISION ADMINISTRATOR: John G. Matthews DATE: 10/13/21

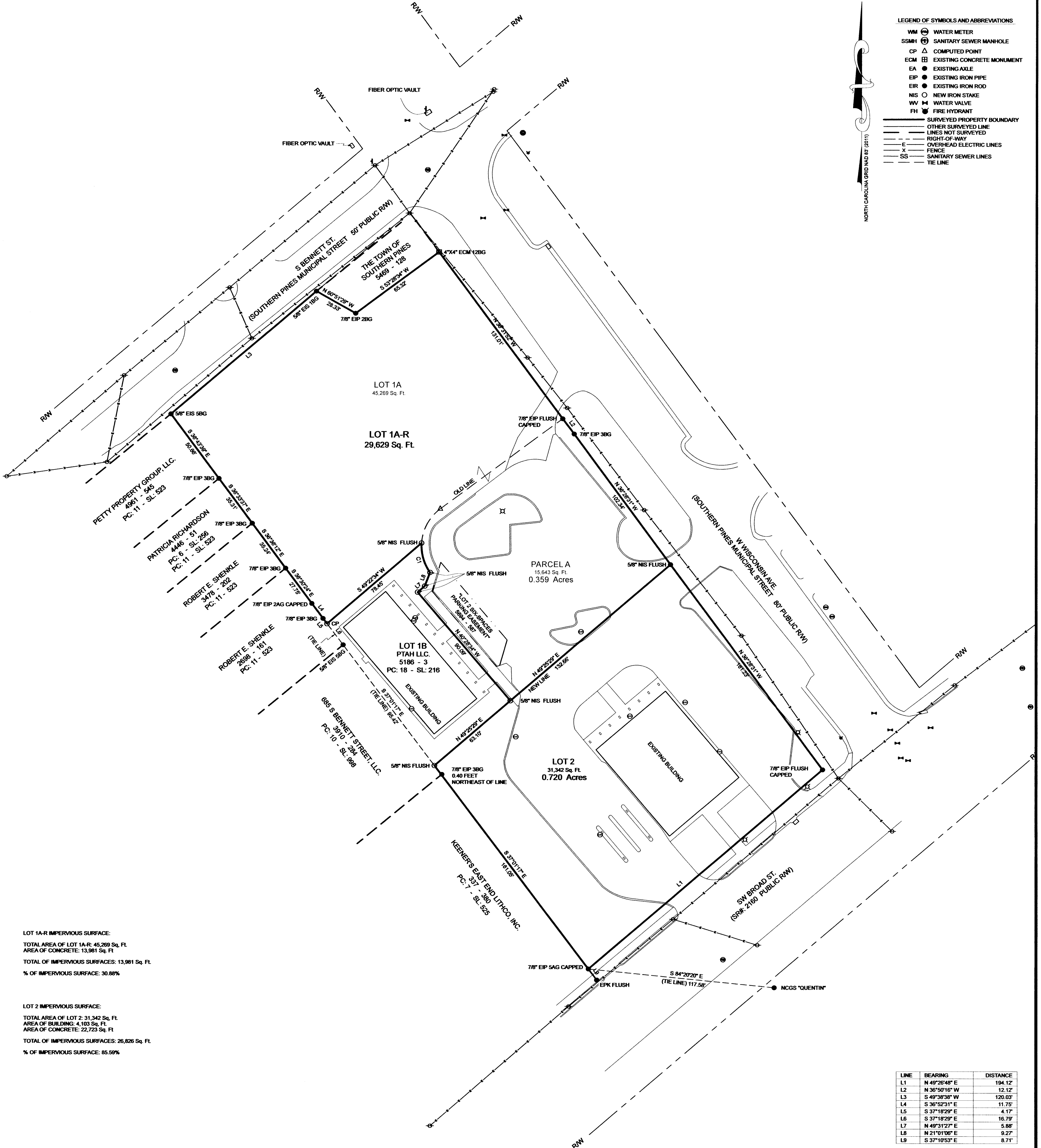
PLAT CABINET 19 SLIDE 127

FOR REGISTRATION REGISTER OF DEEDS
JUDY B. REFLIN
NORTH CAROLINA
October 14, 2021 10:19:31 AM
Book 19 Page 127-127
FEE: \$21.00
INSTRUMENT # 2021022718



LEGEND OF SYMBOLS AND ABBREVIATIONS

- WM WATER METER
- SSMH SANITARY SEWER MANHOLE
- CP COMPUTED POINT
- ECM EXISTING CONCRETE MONUMENT
- EA EXISTING AXLE
- EIP EXISTING IRON PIPE
- EIR EXISTING IRON ROD
- NIS NEW IRON STAKE
- WV WATER VALVE
- FH FIRE HYDRANT
- SURVEYED PROPERTY BOUNDARY
- OTHER SURVEYED LINE
- LINE NOT SURVEYED
- RIGHT-OF-WAY
- OVERHEAD ELECTRIC LINES
- FENCE
- SS SANITARY SEWER LINES
- TIE LINE



LOT 1A-R IMPERVIOUS SURFACE:
TOTAL AREA OF LOT 1A-R: 45,269 Sq. Ft.
AREA OF CONCRETE: 13,981 Sq. Ft.
TOTAL OF IMPERVIOUS SURFACES: 13,981 Sq. Ft.
% OF IMPERVIOUS SURFACE: 30.88%

LOT 2 IMPERVIOUS SURFACE:
TOTAL AREA OF LOT 2: 31,342 Sq. Ft.
AREA OF BUILDING: 4,103 Sq. Ft.
AREA OF CONCRETE: 22,723 Sq. Ft.
TOTAL OF IMPERVIOUS SURFACES: 26,826 Sq. Ft.
% OF IMPERVIOUS SURFACE: 85.59%

I, JOHN G. MATTHEWS, CERTIFY THAT THIS SURVEY IS OF ANOTHER CATEGORY, SUCH AS THE RECOMBINATION OF EXISTING PARCELS, A COURT-ORDERED SURVEY, OR OTHER EXEMPTION OR EXCEPTION TO THE DEFINITION OF SUBDIVISION.

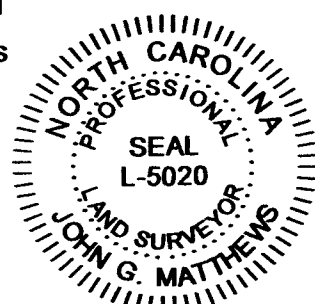
I, JOHN G. MATTHEWS, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS/GNSS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

- (1) CLASS OF SURVEY: CLASS A
- (2) POSITIONAL ACCURACY: ±0.10'
- (3) TYPE OF GPS FIELD PROCEDURE: RTK NETWORKS
- (4) DATES OF SURVEY: SEPTEMBER 13, 2021
- (5) DATUM/EPOCH: NAD83(2011)
- (6) PUBLISHED/FIXED-CONTROL USE: NC CORRS
- (7) GEOD MODEL: CommercialUS_NGS2012B
- (8) COMBINED GRID FACTOR(S): 0.99995022
- (9) UNITS: US SURVEY FEET

GRID TO GROUND SCALE POINT:
N(y): 517068.88142152 US SURVEY FEET
E(x): 1880855.96762054 US SURVEY FEET

I, JOHN G. MATTHEWS, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN (SEE REFERENCE TABLE); THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN (SEE REFERENCE TABLE); THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY AS CALCULATED IS 1:10000; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 13TH DAY OF OCTOBER, A.D. 2021.

PROFESSIONAL LAND SURVEYOR, L-5020



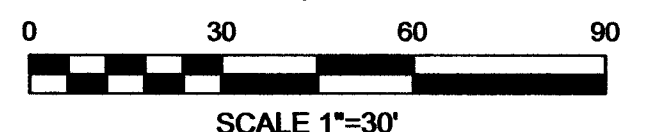
- NOTES:
1. ACREAGE DETERMINED BY COORDINATE METHOD
 2. TAX PARCEL ID: 20190227 & 00041456
 3. ZONING: CB
 4. PUBLIC WATER SUPPLY WATERSHED: WS-41P
 5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE SEARCH AND IS SUBJECT TO ANY EASEMENTS OR CONVEYANCES OF RECORD.
 6. NO ATTEMPTS MADE TO LOCATE UNDERGROUND UTILITIES

RECOMBINATION SURVEY FOR:

BANTEMBO, LLC,

OCTOBER 13, 2021

TOWN OF SOUTHERN PINES
MCNEILL TOWNSHIP
MOORE COUNTY, NORTH CAROLINA

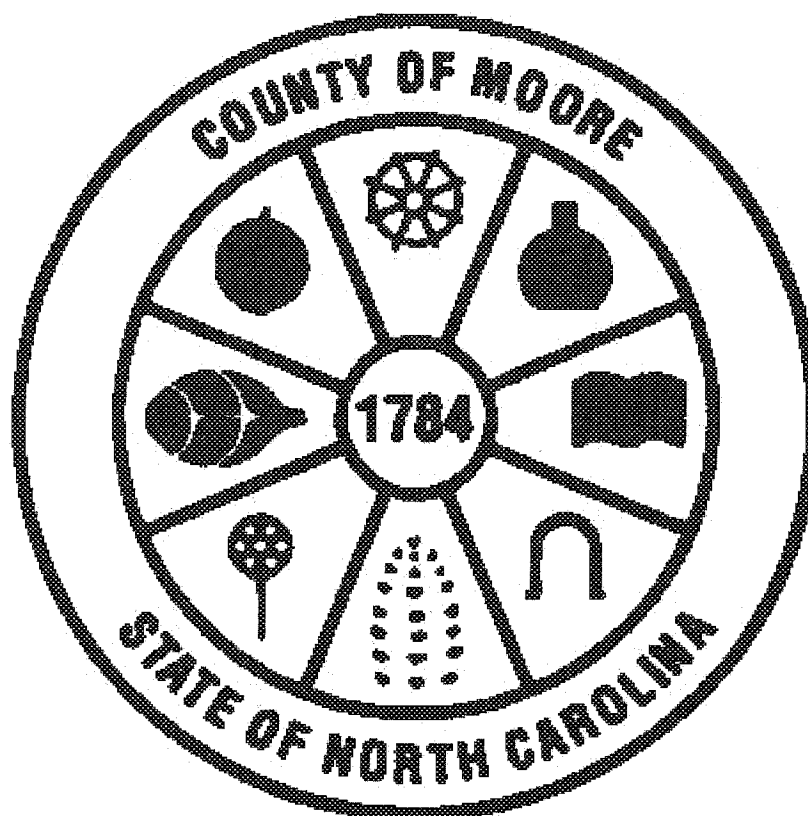


REFERENCE TABLE:
DEED BOOK 5694, PAGE 587 LOT 1A ID: 20190227; BANTEMBO, LLC.
PLAT CABINET 18, SLIDE 216 LOT 1B, ID: NONE; BANTEMBO, LLC.
PLAT CABINET 18, SLIDE 279 ID: 00041456; PTAH, INC.
MOORE COUNTY REGISTRY

PROPERTY ADDRESS: 600 SW BROAD ST. SOUTHERN PINES, NC 28387
OWNERS ADDRESS: BANTEMBO, LLC, P.O. BOX 1872, SOUTHERN PINES, NC 28388

MATTHEWS
LAND SURVEYING & MAPPING
FIRM LICENSE: P-1343

10 COURTHOUSE SQUARE
CARYVILLE, NC 28527
910-947-2671
JOB#: 10765



Judy D. Martin

Register of Deeds

Moore County, North Carolina

MAP

FOR REGISTRATION REGISTER OF DEEDS
Judy D. Martin
Moore County, NC
October 14, 2021 10:19:31 AM
Book 19 Page 127-127
FEE: \$21.00
INSTRUMENT # 2021022718



INSTRUMENT # 2021022718

DECLARATION OF COVENANTS, CONDITIONS, EASEMENTS, RESTRICTIONS, CHARGES, LIENS, AND RESERVATIONS TOWNHOUSES ON BENNETT

THIS DECLARATION OF COVENANTS, CONDITIONS, EASEMENTS, RESTRICTIONS, CHARGES, LIENS AND RESERVATIONS made this _____, 20__, by Grosvenor Land, LLC, a NC limited liability company (hereinafter referred to as "Declarant"), its successors and assigns concerning the planned community to be known as **TOWNHOUSES ON BENNETT**.

WITNESSETH

WHEREAS, it is the intent of the Declarant to establish a general plan and uniform scheme of development and improvement of property it owns or will acquire as a planned residential community (the "Planned Community") together with streets, roads, footways, open spaces, entrances, drainage facilities, access easements, site lighting and signage, and any recreational area(s), common area(s) and any other common properties shown on any recorded plat of such real property of a portion thereof for the benefit of the Planned Community; and,

WHEREAS, Declarant desires to insure the attractiveness of the Planned Community and to prevent any future impairment thereof, to provide for the maintenance and upkeep of the Common Elements, as hereinafter defined, to prevent nuisances, to preserve, protect and enhance the Common Elements of the project; and to this end desires to subject the real property described herein, together with such additions as may hereafter be made thereto, to the covenants, conditions, restrictions, easements, charges, liens, reservations and other provisions hereafter set forth, each and all of which is and are for the benefit of the Planned Community and each property owner within the Planned Community; and

WHEREAS, Declarant has deemed it desirable, for the efficient preservation, protection and enhancement of the property values, amenities and opportunities within the Planned Community in order to contribute to the personal and general health, safety and welfare of the property owners and residents therein, to provide for the maintenance of all Common Elements, to create an organization to which will be delegated and assigned the powers of owning, maintaining and administering the Common Elements and administering and enforcing this Declaration, and collecting and disbursing the assessments and charges hereinafter created; and

WHEREAS, Declarant has caused, or shall cause to be incorporated under North Carolina law, Townhouses on Bennett Property Owners Association, Inc. (the "Association") as a nonprofit corporation for the purpose of exercising and performing the aforesaid functions, and as more specifically provided herein;

NOW, THEREFORE, Declarant hereby declares that it is the expressed purpose, desire and intention of Declarant and Declarant hereby does submit the Existing Property (as herein defined), including any improvements to be located thereon, so that the Existing Property shall be held, sold, conveyed and occupied subject to the provisions, covenants, conditions and restrictions contained herein, which shall run with the real property and be binding on all parties having any right, title or interest in the Existing Property or any part thereof, and their heirs, administrators, successors and assigns, and shall inure to the benefit of each owner thereof .

ARTICLE 1

DEFINITIONS

The following words and terms when used in this Declaration and Bylaws and any supplemental declaration and Bylaws (unless the context shall clearly indicate otherwise) shall have the following meanings:

- 1.1 Architectural Review Board (abbreviated "ARB.")** The term "Architectural Review Board" means and refers to a committee of five (5) individuals initially designated and appointed (and removed) by the Declarant to carry out the duties herein assigned to said Architectural Review Board who shall serve at the pleasure of the Declarant until the end of the Declarant Control Period.
- 1.2 Assessments.** "Assessments" means the same as Common Expenses levied by the Association, as more specifically provided in Article 6.
- 1.3 Association.** "Association" means Townhouses on Bennett Property Owners Association, Inc, a North Carolina nonprofit corporation, its successors and assigns.
- 1.4 Bylaws.** "Bylaws" means such governing regulations as are adopted for the regulation and management of the Association, including such amendments thereof as may be adopted from time to time and recorded. The initial Bylaws are attached hereto as Schedule A.
- 1.5 Board.** "Board" means a board of natural individuals of the number stated in the Bylaws, who need not be Owners, which constitute the Board of Directors of the Association and who shall manage the business, operations and affairs of the Association on behalf of the Members.
- 1.6 Common Elements.** "Common Elements" means the common areas and facilities owned by the Association and dedicated to the common use and enjoyment of the Owners, or such other easements and areas for which the Association has maintenance responsibility, as more specifically provided in Article 7.
- 1.7 Common Expenses.** "Common Expenses" means the expenses of the Association in providing for the acquisition, construction, management, maintenance and care of Association Property, the Common Elements and the Association's maintenance obligations as more particularly provided in Article 6.
- 1.8 Declarant.** "Declarant" means Townhouses on Bennett, LLC, and its successors and assigns in interest in Townhouses on Bennett, if such successor or assign should acquire more than one undeveloped Homesite from the Declarant for the purpose of development, and Townhouses on Bennett, LLC affirmatively assigns in the conveyance to the acquirer of the undeveloped Homesites some, or all, of the Declarant's rights as a Declarant.
- 1.9 Declarant Control Period.** "Declarant Control Period" means that period of time that Declarant may appoint and remove a majority of the Board of Directors of the Association without consent of any Owner; which shall extend so long as Declarant owns any Lot in the Development Area; or, by voluntary relinquishment or assignment, whichever event shall first occur.
- 1.10 Declaration.** "Declaration" means this instrument and any amendments thereto by which the Planned Community is created and expanded.
- 1.11 Development Area.** "Development Area" means that property owned by Declarant as recorded in Book 4135, Page 553, in the Office of the Register of Deeds of County, North Carolina; or, any other tract(s) or parcel(s) that are contiguous to the Development Area and which may be subsequently acquired by the Declarant.
- 1.12 Development Rights.** "Development rights" means any right or combination of rights reserved by the Declarant in this Declaration (i) to add real estate to the Planned Community; (ii) to create lots, Common Elements, or Limited Common Elements within the Planned Community; (iii) to subdivide Homesites or convert Homesites into Common Elements; or (iv) to withdraw real estate from The Planned Community.
- 1.13 Dispose or Disposition.** "Dispose" or "disposition" means a voluntary transfer to a purchaser of any legal or equitable interest in a Homesite, but does not include the transfer or release of a security interest.
- 1.14 Development Parcel(s).** "Development Parcel(s)" means those unimproved parcels or tracts of

land conveyed by the Declarant to third parties under this Declaration permitting the division of such parcel or tract into smaller land units as Homesites or Residence Units or for development as a Cluster Residential Tract. Any such conveyance shall contain a reference to this subsection.

1.15 Drainage. "Drainage" means the removal of surface water or ground water from land by drains, grading or other means, and includes control of runoff to minimize erosion and sedimentation during and after construction or development and likewise includes undertaking those measures necessary for water supply preservation for prevention or alleviation of flooding.

1.16 Foreclosure. "Foreclosure" means the exercise of the rights of the holder of any mortgage or other instrument creating a security interest in a Homesite or Residence Unit.

1.17 Homesite(s). "Homesites(s)" means any unimproved plot of land designated with an Identifying Number upon any recorded subdivision map of a portion of The Planned Community. A Homesite shall be intended for use as the site for one (1) single family detached dwelling unit. A Homesite shall be deemed to be unimproved until the improvements being constructed thereon are sufficiently completed to reasonably permit habitation thereof and will thereafter be subject to assessments as improved property as a Residence Unit.

1.18 Identifying Number. "Identifying number" means a symbol on the recorded plat of any phase of the Property that identifies only one Homesite in The Planned Community.

1.19 Improvements. "Improvements" means all structures or construction of any kind that alters the initial physical appearance of a Homesite, including, without limitation, any building, outbuildings, roads, driveways, parking areas, retaining walls, loading areas, utilities, lawns, fence, wall, sign, paving, grading, parking and building additions, alteration, screen enclosure, pool, sewer, drain, disposal system, decorative building, landscaping or landscape device (including existing and planted trees and shrubbery) or object together with any construction work or treatment done or applied to a Homesite in connection therewith.

1.20 Lease. "Lease" means all leases, subleases and rental contracts, whether oral or written.

1.21 Limited Common Element. "Limited common element" means a portion of the Property allocated by the Declaration for the exclusive use of one or more but fewer than all of the Homesites. There are no Limited Common Elements in the Existing Property. It is anticipated that the future development of new Regimes may allocate Limited Common Elements as part of a Supplemental Declaration affecting Development Parcels.

1.22 Majority. "Majority" means any number of votes which is greater than fifty percent (50%) of the applicable votes.

1.23 Master Plan or Development Plan. "Master Plan" or "Development Plan" means the drawings which represent the conceptual research plan for the future development of The Planned Community, held by the Declarant and made available for inspection by prospective land purchasers. Since the concept of the future development of the developed and undeveloped portions of The Planned Community retained by, and remaining in the Declarant's ownership, is subject to continuing revision and change at the discretion of the Declarant, present and future references to the "Master Plan" by the Declarant, its employees or agents shall be reference to the latest revision thereof. In addition, no implied reciprocal covenants shall arise with respect to lands which have been retained by the Declarant for future development restricting their uses. The Declarant shall not be bound by any development plan, use or restriction of use shown on any Master Plan, and may at any time change or revise said Master Plan. None of the proposed facilities reflected on any Master Plan need be built. The final development plan and the construction of any proposed facilities is dependent on market conditions and the economic viability of the sale of Homesites in The Planned Community.

1.24 Member. "Member" means every person or entity who holds membership in the Association. Declarant shall be a Member of the Association from and after the date of recordation of this Declaration.

1.25 Mortgage. "Mortgage" includes both a deed of trust or a mortgage or any instrument creating a security interest in a Homesite or Residence Unit.

1.26 Mortgagee. "Mortgagee" includes any grantee in or holder of a Mortgage, or the beneficiary of

a Deed of Trust, or other similar security interest.

1.27 Occupant. "Occupant" means any person who occupies, or who has the right to occupy, all or a part of any Homesite or Residence Unit which is a part of the Property, whether such occupancy or right of occupancy is based on ownership, lease, license or easement.

1.28 Offensive or Noxious Activity. "Offensive or Noxious" activity or behavior includes but not be limited to a public nuisance or nuisance per se and shall also include any behavior or activity which is inconsistent with both the pleasurable use of The Planned Community by a majority of the residents and their reasonable expectations of enjoying their property and the available amenities and natural surroundings free of boorish, rude, excessively noisy, crude, tasteless behavior, flashing lights, racing vehicles, radio, hi-fi or electronic music distractions, etc., or other similar behavior curtailing the pleasure of use of the natural environment and Common Elements of The Planned Community. Musical or other entertainment, concerts, festivals, competitions or shows conducted under permit from the Declarant shall not constitute offensive or noxious activity or behavior unless such permit is withdrawn by the Declarant.

1.29 Owner or Unit Owner. The term "Owner" or "Unit Owner" means a person who has acquired by disposition fee simple title to any Homesite, but shall not include a person having such an interest merely as security for the performance of an obligation. The Declarant and any mortgagee is excluded from being an "Owner" unless and until such Declarant and mortgagee has acquired title pursuant to foreclosure or any proceeding in lieu of foreclosure.

1.30 Person. "Person" means a natural person, corporation, business trust, estate, trust, partnership, association, joint venture, government, governmental subdivision or agency, or other legal or commercial entity.

1.31 Planned Community. "Planned Community" means real estate with respect to which any person, by virtue of his ownership of a Homesite, is expressly obligated by this Declaration to pay real property taxes, insurance premiums, or other expenses to maintain, improve or benefit other Homesites or other real estate described in this Declaration. The term Planned Community is used interchangeably with the term Townhouses on Bennett within this Declaration.

1.32 Property. "Property" means the Existing Property as defined in Article 2.1 and any additions or replacements that may be brought by the Declarant, at its option, within the scheme and jurisdiction of this Declaration, including the Homesites and the Common Elements, together with the buildings and all other improvements thereon, and all easements and rights appurtenant thereto, which are now or hereafter used in connection with the ownership and use of said land and improvements.

1.33 Recorded. "Recorded" means made a matter of public record by filing same in the Office of the Register of Deeds or Clerk of Court for Moore County, North Carolina, the filing place to be determined by the type of document to be recorded.

1.34 Regime. "Regime" means a section or portion of the Property brought within the scheme of this Declaration for the purposes of levying assessment upon the Homesites and Owners. The Property within a Regime shall consist of Homesites, together with any Limited Common Elements, which have similar characteristics and expenses for maintenance and operation. All Owners of Homesites within a specific type of Regime, as designated by Declarant, shall be assessed the same annual amount for assessment established pursuant to the provisions herein. Different Regimes may, however, at Declarant's sole discretion, have different assessments due to the presence of Limited Common Elements within that Regime.

1.35 Residence Unit. "Residence Unit" means the improvements erected on a Homesite for use and occupancy as one single family dwelling and any exterior steps, garage, parking space, patio, deck, driveway, balcony, storage facilities, terraces, verandas and landscaping located on the Homesite, and the Homesite upon which said building and improvements are located.

1.36 Security Expenses. "Security Expenses" means all fees and expenses incurred by the Association for any security purpose associated with the Planned Community, including but not limited to erection, purchase and maintenance of gates, perimeter fencing, vehicles, equipment, personnel or contracts with providers of such services, equipment and facilities.

1.37 Shall. "Shall" indicates a mandatory requirement, condition, or obligation; in contrast, the term "may" indicate a permissive action.

1.38 Special Declarant Rights. "Special Declarant Rights" means rights reserved for the benefit of the Declarant which may not be altered by the Members, including, but not limited to rights (i) to complete or modify improvements indicated on plats and plans filed with the Declaration; (ii) to exercise any Development Right; (iii) to maintain sales offices, management offices, signs advertising The Planned Community, and models; (iv) to use easements through the common elements for the purpose of making improvements within The Planned Community or within real estate which may be added to The Planned Community; (v) to have access over, upon and through the Development Area to any unsold Lots or undeveloped areas within the Planned Community or property owned by the Declarant adjacent thereto, (v) to appoint or remove any officers or executive board members of the Association during the period of declarant control, all of which Special Declarant Rights are more fully set forth herein.

1.39 Structure. "Structure" means any construction, object, projection or piece of work artificially built up or composed of parts joined together in some definite manner, which is erected or shaped on the Property, including but not limited to buildings, fences, walls, bridges, signs, blinds, tennis courts, swimming pools, tents, gazebos, greenhouses, garage facilities or other outbuildings, signs, abutments, ornamental projections, exterior fixtures, shaped earth as a masonry structure, lights, or any device which might obstruct or interfere with the quality of a view from the property.

1.40 Use of Land or Intended for Use. "Use of Land" or "Intended for Use" means the use designated in the deed of conveyance of a parcel or space or by separate declaration of covenants designating the use for which any particular parcel of land is restricted to in such declaration incorporated by reference to a particular recorded declaration of covenants in deeds by which the Declarant has conveyed such land. Reference to "uses" of land, or description of parcels on maps, master plans, and promotional material shall not constitute a designation of use for purposes of this Declaration nor shall such reference create any obligation for the Declarant.

1.41 Use or Used for Residential Purposes. "Use or Used for Residential Purposes" means to be used as one's residence or normal and customary place of abode and shall not include any use for business or commercial purposes. The use of a portion a Residence Unit as a home office shall be considered a residential use: (1) if such use does not create more than very occasional customer or client traffic to and from the Residence Unit and is otherwise permitted by any applicable Zoning Ordinance; (2) if the Residence Unit's address is not held out or advertised in any way as a business address; (3) no sign, symbol, logo, or name plate identifying such business is affixed to the exterior of the Residence Unit or visible from the exterior of the Residence Unit; and (4) except where the approval of the Association has been given to such use.

1.42 Utility Area. "Utility Area" means those tracts or parcels of the properties set aside by Declarant, at its sole option, for maintenance buildings, and the installation of utility systems to serve the remainder of the Property. Utility systems shall include, but not be limited to, water, sewer, telephone, electricity, cable and gas. The Utility Areas may be conveyed by Declarant to a municipality or to public or private utility companies that operate and maintain such systems. Utility Areas shall be accessible by easements of ingress, egress and regress reserved herein over the Property if not located on a public or private street. At the option of the Declarant, any or all of a Homesite may be used as a Utility Area.

ARTICLE 2

PROPERTY SUBJECT TO DECLARATION

2.1 Existing Property. The Property which is and shall be held, transferred, sold, conveyed, given, donated, leased and occupied under this Declaration and within the jurisdiction of the Association, is located in McNeill Township, Moore County, North Carolina, and is more particularly described as Townhouses on Bennett, as shown on plat thereof recorded in the Office of the Register of Deeds of Moore County, North Carolina in Plat Cabinet 17 Slides 875.

2.2 Additions to Existing Property. Additional land within the Development Area of any tract that Declarant may acquire that is contiguous to the Development Area may be brought within the scheme and operation of this Declaration and the Jurisdiction of the Association by the Declarant without the consent of the Association or any Member in the following manner: The area of the Property subject to this Declaration maybe increased by filing with the Register of Deeds of the jurisdiction referred to above, plats of additional phases within the Development Area and the subsequent conveyance of any Homesite by the Declarant in such phase by reference to such plat and this Declaration, which shall then extend the scheme of the Declaration to all property shown on the plat of that phase, except for any areas marked "Reserved" or such areas of similar nomenclature. No other land within the Development Area or vicinity of the Development Area shall be subject to this Declaration unless the provisions of this section are complied with, it being intended that this Declaration may not be construed or considered as a scheme for the development of any land other than that shown on the then existing and recorded plats for each phase by which at least one of the Homesites shown thereon has been conveyed by reference to such plat and this Declaration.

2.3 Supplemental Declaration. In addition the Declarant reserves the right to file Supplemental Declarations with the development of each successive phase, or as amendment to the Existing Property, which may contain such complementary additions and modifications of this Declaration as may be necessary or convenient, in the sole judgment of the Declarant, to reflect and adapt to any difference in character of the those properties (for example, a Regime developed on a Cluster Residential Tract, or that includes Limited Common Elements),and as are not inconsistent with the scheme of this Declaration.

ARTICLE 3 **USE OF PROPERTY**

3.1 Use Restrictions. The use of the Property, the Homesites, the Residence Units and Common Elements shall be in accordance with the following provisions as long as this Declaration remains in effect.

3.2 Single Family Residence. The Homesites and any building or structure now or hereafter erected on a Homesite shall be occupied and used for single family residence purposes only, and no building shall be erected, altered, placed or permitted to remain on any Homesite other than one single detached dwelling not exceeding two stories and an attic (finished or unfinished) in height, a basement (finished or unfinished),a garage for not more than three cars (which may include guest or employee quarters)and appropriate outbuildings incident to the single family residential use of the premises. Garages shall not open to the front street unless approved by the Architectural Review Board. Each of the Homesites and any permitted Residence Units constructed thereon shall be occupied only by the Owner (or Owners), his family, his servants and guests, or lessees, and shall be used only as a single-family residence and for no other purpose. No Residence Unit may be divided or subdivided into a smaller unit nor any portion thereof separately sold or otherwise transferred; provided that Homesites or portions thereof may be combined to form larger parcels than originally platted. Lease or rental to one or more tenants of a Residence Unit for residential purposes, subject to the other provisions of this Declaration, shall not be considered a violation of this covenant.

3.3 Nuisances. No nuisances shall be allowed upon any Homesite nor any use or practice which is the source of annoyance to residents or which interferes with the peaceful possession and proper use of the Property by its residents. All parts of the Common Elements, and the Homesites or Residence Units shall be kept in a clean and sanitary condition, and no rubbish, refuse or garbage shall be allowed to accumulate. No damage to or waste of the Common Elements, or any part thereof, shall be committed by any Owner or his family, visitors, guests, servants, lessees, agents or invitees, and each Owner shall indemnify and hold the Association and the other Owners harmless against all losses resulting from any such damage or waste. No Homesite or Residence Unit Owner shall make or permit any use of his Homesite or Residence Unit, or make any use of the Common Elements, which will violate the provisions of the general documents or any insurance policy covering the Property.

3.4 Lawful Use. No immoral, improper, offensive or unlawful use shall be made of any part of the Property, and all applicable laws, zoning ordinances and regulations of all governmental bodies shall be observed. The expense of complying with any such laws, ordinances or regulations which compliance requires maintenance, modification or repair of the Common Elements shall be borne by the Association unless necessitated by the misuse, misconduct or neglect of a Homesite Owner or Residence Unit Owner, or his family, visitors, guests, servants, lessees, agents or invitees, in which case such expense shall be assessed against such Owner.

3.5 Certain Structure Types Prohibited. Mobile, Modular and Manufactured Homes are prohibited. In the event of any question as to whether a proposed structure may be considered a prohibited Mobile, Modular or Manufactured Home, the Declarant shall decide based on its sole discretion during the period of Declarant Control and thereafter the Board shall decide based on the existing standards for construction in the Architectural Review Board Policies and Procedures.

3.6 Rules and Regulations. Rules and regulations adopted by the Board shall be binding upon the Owners, their families, visitors, guests, servants, lessees, agents, invitees, successors and assigns.

3.7 Fences, Walls and Landscaping. No fences or walls shall at any time be erected or maintained upon the Property or any Homesite, unless they are specifically approved by the Architectural Review Board or their designated representative. Initial landscaping for each Residence Unit must be approved by the Architectural Review Board. Any annual plants approved for landscaping by the Architectural Review Board must be cared for by the Owner of the Homesite or Residence Unit.

3.8 Parking Areas. No Owner of a Homesite shall park, store or keep any motor vehicle, boat, trailer, recreational vehicle or other vehicle upon the Property except in accordance with rules and regulations adopted by the Association. No person shall repair or restore any motor vehicle, boat, trailer, recreational vehicle or other vehicle upon any portion of the Property or Common Elements except for emergency repairs thereto, and then only to the extent necessary to enable movement thereof to a proper facility.

3.9 Waste Material Containers. No rubbish, trash, garbage or other waste material shall be kept or permitted upon any Homesite or the Common Elements except in sanitary containers located in appropriate areas and otherwise in accordance with rules and regulations adopted by the Association from time to time. No "hazardous substance" or "solid waste" as defined in any state or federal law shall be released, kept or maintained on any Homesite or portion of the Common Elements.

3.10 Signs. Unless prior written approval is obtained from the Association, no sign shall be posted on the Common Elements, or on any Homesite or Residence Unit or in any Residence Unit which will be visible from the exterior of such Unit.

3.11 Offensive Trade or Activity. No noxious or offensive trade or activity shall be carried on upon any building site, nor shall anything be done thereon which may be or cause an embarrassment, discomfort, annoyance or nuisance to the neighborhood. No trade materials or inventories may be stored upon the premises and no campers, recreational vehicle, motor home, trucks or trailers, boats or boat trailers may be stored or regularly parked on the premises unless garaged and out of view, without prior written approval of Architectural Review Board. Unless approved in writing by the Architectural Review Board, no business activity or trade of any kind whatsoever, which shall include but not be limited to the use of any residence as a doctor's office or professional office of any kind, shall be carried on upon any building site.

3.12 No Temporary Structures. No structure of temporary character, tent, shack, trailer, camper, garage, or any other outbuilding, except for temporary structures used by Declarant in the operation, maintenance or development of the Property shall be used on any Homesite at any time as permanent or temporary residence, or dwelling, except under a temporary written permit which may be granted, upon specific time limitations of such use, in the discretion of the Architectural Review Board. Nor shall any of the facilities referenced above be placed on or erected on any Homesite or Homesites; provided, however, that the Architectural Review Board may grant permission for such temporary buildings or structures for the storage for materials during construction by the persons doing such work.

3.13 No Livestock. No livestock of any description may be kept or permitted on the Property with the

exception of dogs, cats, and other animals which are bona fide household pets, and which do not make objectionable noise or constitute a nuisance or inconvenience to Owners of other Homesites or Residence Units nearby. All pets shall be leashed when not on the Owner's Homesite, and shall otherwise be controlled by the Owner while on the Owner's Homesite such that the pet shall not have unrestrained access to property other than that of the Owner. Upon receipt of a written complaint regarding any dog, cat or pet, the Architectural Review Board may notify the Owner of such dog, cat or pet of the complaint and, after affording the Owner an opportunity to be heard, impose such restrictions upon the Owner regarding such dog, cat or pet as may be reasonably necessary to satisfy said complaint in the discretion of the Board. No raising, breeding, training or commercial dealing in dogs, cats or any other animals may be permitted on or from any Homesite or Residence Unit.

3.14 Off-Street Parking. Adequate off-street parking shall be provided by the Owner of each Homesite or Residence Unit being used as a building site and each Homesite or Residence Unit for the parking of automobiles owned by such Owner, or his guest. Owners of Homesites and Residence Units agree not to park their automobiles or other vehicles on the streets in the development. No boats, trailers, or recreational vehicles shall be regularly parked or stored on any street, or on any Homesite except in a garage. No commercial vehicles shall be parked on any street or Homesite longer than is reasonably necessary for the driver thereof to perform the business functions to which the commercial vehicle relates.

3.15 Recreational Facilities. No Homesite Owner or Residence Unit Owner in the development shall have any right to use any portion of the Common Elements comprised of recreational facilities unless the Homesite Owner or Residence Unit Owner has paid the applicable fees and assessments established by the Association.

3.16 Refuse. No Homesite shall be used or maintained as a dumping ground for rubbish, refuse or garbage. Garbage or other waste shall be kept in sanitary containers. All incinerators or other equipment for the disposal or storage of such matter shall be kept in a clean and sanitary condition, and all incinerators shall be approved by the Architectural Review Board before installation or use. Burning of trash or refuse is prohibited without prior approval of the Architectural Review Board and the fire department authorized to serve the premises. Fires on any Homesite or any portion of the Common Elements are prohibited unless approved by the Architectural Review Board. No hazardous substance, waste or other toxic material shall be dumped, buried, injected, treated or disposed of on any Homesite or any portion of the Common Elements.

3.17 Antennas. No television or radio antennae, satellite receiver or towers may be erected or maintained anywhere upon the development without prior written consent of the Architectural Review Board upon such reasonable conditions as the Architectural Review Board may feel appropriate to minimize any visual impact of the structure to others.

3.18 Wash. All drying of wash must be done indoors or in an area screened from view from any other Homesite, Residence Unit, street or adjoining property not part of Townhouses on Bennett. No permanent exterior clothes dryer shall be erected, installed, or maintained on any Homesite, or on any Structures thereon. Only collapsible or retractable clothes dryers shall be used and they shall be collapsed or retracted when not in use and shall be located in the rear yard behind any Residence Unit.

3.19 Trees and Foliage. Trees measuring four (4) inches or more in diameter, at a point three (3) feet above ground level, and any flowering trees or shrubs above five (5) feet in height may not be removed from the property without the written approval of the Architectural Review Board. Excepted here shall be trees which must be removed because of an emergency.

3.20 No Site Obstructions. No trees or shrubs shall be located on any Homesite which block the view of operators of motor vehicles so as to create a traffic hazard.

3.21 Unsightly Conditions. It is the responsibility of each Owner to prevent any unclean, unsightly, or unkept conditions of his Resident Unit or grounds on a Homesite of any owner which shall tend to materially decrease the beauty of the Planned Community. The Association shall have the option, but not the obligation to ameliorate any such condition and charge such expense to the Owner as an

additional assessment immediately due and payable collectible under the provisions of Article 6.

3.22 Discharge of Firearms. Hunting and trapping of wild animals, fowl and game and discharge of firearms and/or bows and arrows within the property is prohibited unless required for public or private safety.

3.33 Motorized Vehicles. All motorized vehicles operating within the Property must be properly muffled so as to eliminate noise which might be offensive to others.

3.34 Vegetation. No existing vegetation or wetlands shall be disturbed during construction without the express written consent of the Architectural Review Board and any necessary approval from any governmental agency having jurisdiction. The Architectural Review Board shall require written proposals for the re-stabilization of any such disturbed area. Any vegetation disturbed during construction shall be restored to the satisfaction of the Architectural Review Board prior to Owner applying for an occupancy permit.

3.35 Wetlands. Any Homesites that include areas designated as "wetlands" on any recorded plat of the Property shall be subject to the following additional restrictive covenant: "A portion of this Homesite has been determined to meet requirements for the designation as a regulatory wetland. Any subsequent fill or alteration of this wetland shall conform to the requirements of state wetland rules adopted by the State of North Carolina in force at the time of the proposed alteration. The intent of this restriction is to prevent additional wetland fill, so the property owner should not assume that a future application for fill will be approved. The property owner shall report the name of the subdivision in any application pertaining to said wetland rules. This covenant is intended to ensure continued compliance with wetland rules adopted by the State of North Carolina and therefore benefits may be enforced by the State of North Carolina. This covenant is to run with the land and shall be binding on all parties and all persons claiming under them.

3.36 Additional Use Restrictions. These Restrictions shall include architectural and landscaping restrictions which shall govern portions of the Property as provided in Article 4.

ARTICLE 4

CONSTRUCTION ON HOMESITES / RESIDENCE UNITS **ARCHITECTURAL AND LANDSCAPE CONTROLS**

4.1 Architectural Review Board. It is the intent of Declarant to create a general plan and uniform scheme of development of the Property and to create within the Property a residential community of high quality and harmonious improvements. The Declarant desires to provide for the preservation of the property values in the Planned Community with respect to any Residence Unit to be constructed on any Homesite and to that end, desires to establish an Architectural Review Board in order to provide and maintain certain standards as to harmony of external design and location in relation to surrounding structures and topography. Accordingly, the Architectural Review Board (the "Architectural Review Board") shall have the absolute and exclusive right to approve or disapprove all architectural, landscaping and locating of any proposed improvements. The Architectural Review Board may, in its sole discretion, impose standards for construction and development which may be greater or more stringent than standards prescribed in applicable building, zoning or other governmental codes.

4.2 Approval to Build. The Owner of a Homesite may build a Residence Unit thereon subject to the following terms, conditions and restrictions:

4.2.1 Homesite Configuration. No residence shall be constructed, altered, placed or permitted to remain on any parcel in the Planned Community unless same is constructed upon a defined Homesite. The lay of the Homesites as shown on the recorded plat shall be adhered to; provided, however, Declarant and its successors and assigns, may revise and alter the following: (a) the configuration of Homesites so that additional streets or access easements, either public or private, may be opened through any Homesite, and (b) the size and shape of any Homesite may be altered, provided such reconfiguration applies with all applicable zoning and subdivision regulations. The Owner(s) of more than one (1) contiguous Homesite may apply to the Architectural Review Board for permission to use

such properties as a site for a Single-Family Residence and upon the written consent of the Architectural Review Board, said contiguous parcels shall then be deemed to be a single "Homesite" for purposes of this Declaration, except that the Homesites shall continue to be treated as separate and distinct Homesites for purposes of voting and assessments. In the event of a split of a Homesite between two or more Owners of other Homesites, then they shall determine the allocation of the vote and assessment obligation between them and notify the Association. All setbacks and any reserved utility easements shall then apply to the new perimeter boundary of the combined Homesites.

4.2.2 Building Contractors for Residence Unit. Declarant reserves the right, at its sole option, for Declarant or the Architectural Review Board to designate the criteria for building contractors who may be employed by Owners to construct homes on a Homesite in the Planned Community which is the subject of these restrictions. The Architectural Review Board, at their election, may establish specific criteria for the building contractors to satisfy construction of homes within the Planned Community. Neither Declarant nor the Architectural Review Board have any obligation to establish the criteria for the building contractors and do not in any manner have any obligation concerning their performance.

4.2.3 Applicable Laws and Architectural Review Board Policies. A Homesite is subject to having constructed on it by its Owner a Residence Unit that meets the requirements of any applicable laws, ordinances, restrictions and covenants approved by the Architectural Review Board pursuant to the policies and procedures established by the Architectural Review Board as described in the Policies and Procedures. The Architectural Review Board, shall have the power to enforce this Article and the Policies and Procedures by any action, including any type of action in a court of law or equity.

4.2.4 Plans and Specifications. No building of any type, outside lighting, driveway, clearing or site work, outside trash receptacle, fence, wall, hedge or screen planting shall be erected, placed or altered on any premises in the Planned Community until the building plans, specifications and plot plans showing the location of such building, outside lighting, outside trash receptacle, wall, hedge, fence or screen planting have been approved in writing as to conformity and harmony of external design, and external materials with existing structures in the area and as to location with respect to topography, wetlands, and finished ground elevation, by the Architectural Review Board. No exposed concrete blocks shall be used above finished ground elevations unless said blocks are covered with brick veneer, stone, or stucco. No asbestos shingles or asbestos siding of any type or asphaltic covering shall be used on vertical exterior walls, unless approved by the Architectural Review Board. In the event said board fails to approve or disapprove such design or location within forty-five (45) days after such plans and specifications have been submitted to it, such approval will not be required and this covenant will be deemed to have been fully complied with.

4.2.5 Site Plans. The Architectural Review Board shall approve the location of buildings and other improvements on all building sites in the Planned Community. Except with the prior written approval of the Architectural Review Board, no building shall be located on any building site outside the minimum building setback lines shown on any recorded map; or, if not shown on the recorded map setbacks shall be fifty (50) feet from the rear property line, forty (40) feet from any front street and twelve (12) feet from any side Homesite or side street line. The Architectural Review Board shall in all cases determine the front street for each Homesite. The measurements for setbacks, except in the cases of side street setbacks, shall be from the base of the building foundation and reasonable eaves or overhangs or decks (not to exceed ten (10) feet) shall not be considered. Side street setbacks and other measurements for setbacks are to be from the outer edge of the eaves, overhangs and decks. No change in the natural drainage shall be made by any Homesite Owner without prior written approval from the Declarant. No changes other than general maintenance can be made to any drainage easement unless approved by the Declarant.

4.2.6 Square Footage of Residence Units. No residential structure exceeding a total height of 35 feet and which has an area of less than 1,800 square feet of heated living space, exclusive of porches and garages, shall be erected or placed on any building site. Two-story dwellings shall contain not less than 1,200 square feet of heated living space on the first or ground floor. A second story shall be defined as any floor level which lies at an elevation of more than five (5) feet above but less than twelve

(12) feet above any other floor level within the same residence.

4.2.7 Approvals. The Architectural Review Board shall have the right to disapprove any plans, specifications or details submitted to it as aforesaid in the event such plans, specifications and details are (i) not in accordance with all of the provisions established in this Declaration and the Policies and Procedures established by the Architectural Review Board, (ii) if the design or color schemes of the proposed building or other structure is not in harmony with the general surroundings of such Homesite or within the adjacent buildings or structures, (iii) if the plans and specifications submitted are incomplete, or (iv) in the event the Architectural Review Board deems the plans, specifications or details, or any part thereof, to be contrary to the interests, welfare or rights of all or any part of the Property or the Owners thereof, all in the sole discretion of the Architectural Review Board. The decisions of the Architectural Review Board shall be final, subject to the right of the Owner to appeal to the Board. Neither Declarant, the Architectural Review Board nor any agent thereof shall be responsible in any way for (i) any defects in any plans or specifications submitted, revised or approved in accordance with the foregoing, (ii) any structural or other defects in any work done according to such plans and specifications, or (iii) the enforcement of any municipal or governmental code, statute, law or ordinance.

4.2.8 Building Permit. No Owner shall obtain a building permit from the applicable County or municipal agencies without first obtaining all necessary approvals from the Architectural Review Board as set forth in the Policies and Procedures. Declarant shall have the right to charge a reasonable building permit fee for use to defray the expense of the Architectural Review Board in approving any building or Homesite construction plan which shall be payable by the Owner at the time of submission of the plans for approval.

4.2.9 Time Period. The work of constructing, altering or remodeling any building on any Homesite or Homesites shall be pursued diligently from the commencement until the completion thereof, and shall be completed within twelve (12) months from time of approval by the Architectural Review Board.

4.2.10 Grading and Filling. All planned Homesite grading shall be approved in advance by the Architectural Review Board. No Homesite may be filled to a point higher than the highest point on the Homesite in its natural state without permission from the Architectural Review Board. All Homesite fillings shall be approved in advance by the Architectural Review Board.

4.2.11 Driveway Culverts. Each Owner, if required by the Architectural Review Board in the approval of the plans process, when making a driveway connection to the street or to a cul-de-sac, will provide a suitable drainage culvert so as to allow for unimpeded water movement along the existing roadway swale, and will maintain that culvert at all times in such a way that it does not become an eyesore or disturb the desired drainage patterns in the swale system.

4.2.12 Homes that require sidewalks per the plat approved by the Town of southern Pines shall be responsible for their installation. Maintenance shall subsequently be the responsibility of the Town of Southern Pines.

ARTICLE 5

PROPERTY OWNERS ASSOCIATION

5.1 Membership. Every owner of a Homesite shall be a member of Townhouses on Bennett Property Owners Association, Inc., a non-profit corporation, created by the Declarant. Membership shall be appurtenant to and may not be separated from ownership of any Homesite. Each membership in the Association shall relate to and have a unity of interest with an individual Homesite which may not be separated from ownership of said Homesite.

5.2.0 Powers of Association. Subject to the provisions of this Declaration and the Articles of Incorporation, the Association may exercise all powers provided by NCGS §47F-3-102 of the North Carolina Planned Community Act, including but not limited to the following:

5.2.1 adopt and amend Bylaws and rules and regulations;

5.2.2 adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from owners;

5.2.3 hire and discharge managing agents and other employees, agents, and independent contractors;

5.2.4 institute, defend, or intervene in litigation or administrative proceedings on matters affecting the Planned Community;

5.2.5 make contracts and incur liabilities;

5.2.6 regulate the use, maintenance, repair, replacement, and modification of Common Elements;

5.2.7 cause additional improvements to be made as a part of the common elements;

5.2.8 acquire, hold, encumber, and convey in its own name any right, title, or interest to real or personal property, provided that Common Elements may be conveyed or subjected to a security interest only pursuant to NCGS §47F-3-112;

5.2.9 grant easements, leases, licenses, and concessions through or over the Common Elements;

5.2.10 impose and receive any payments, fees, or charges for the use, rental, or operation of the Common Elements other than the Limited Common Elements and for services provided to Owners;

5.2.11 impose reasonable charges for late payment of assessments and, after notice and an opportunity to be heard, suspend privileges or services provided by the Association (except rights of access to Homesites) during any period that assessments or other amounts due and owing to the Association remain unpaid for a period of thirty (30) days or longer;

5.2.12 after notice and an opportunity to be heard, impose reasonable fines or suspend privileges or services provided by the Association for reasonable periods for violations of the Declaration, Bylaws, and Rules and Regulations of the Association;

5.2.13 impose reasonable charges in connection with the preparation and recordation of documents, including, without limitation, amendments to the Declaration, or statements of unpaid assessments;

5.2.14 provide for the indemnification of and maintain liability insurance for its officers, executive board, directors, employees and agents;

5.2.15 assign its right to future income, including the right to receive Common Expense assessments;

5.2.16 exercise all other powers that may be exercised in this State by legal entities of the same type as the Association; and

5.2.17 exercise any other powers necessary and proper for the governance and operation of the Association.

5.3 Procedures for Fines and Suspension of Planned Community Privileges or Services.

A hearing shall be held before an adjudicatory panel appointed by the Board to determine, if any Owner should be fined, or if Planned Community privileges, including voting privileges, or services should be suspended. If the Board fails to appoint an adjudicatory panel to hear such matters, hearings under this section shall be held before the Board. The Owner charged shall be given notice of the charge, opportunity to be heard and to present evidence, and notice of the decision. If it is decided that a fine should be imposed, a fine not to exceed the maximum then allowed under the Planned Community Act may be imposed for the violation and without further hearing, for each day after the decision that the violation occurs. Such fines shall be assessments secured by liens under Article 6. If it is decided that a suspension of Planned Community privileges, including voting privileges, or services should be imposed, the suspension may be continued without further hearing until the violation or delinquency is cured.

5.4 Executive Board Members and Officers.

Except as provided elsewhere in this Declaration, in the Bylaws, or in subsection 5.5, the executive board may act in all instances on behalf of the association. In the performance of their duties, officers and members of the executive board shall be deemed to stand in a fiduciary relationship to the association and the lot owners and shall discharge their duties in good faith, and with that diligence and care which ordinarily prudent men would exercise under similar circumstances in like positions.

5.5 Executive Board Prohibitions. The executive board may not act on behalf of the Association to amend the Declaration, except for any amendments that do not require Member approval; to terminate the Planned Community; or to elect members of the executive board or determine the qualifications, powers and duties, or terms of office of executive board members, but the executive

board may fill vacancies in its membership for the unexpired portion of any term as provided in the Bylaws.

5.6 Declarant's Control of Association. Regardless of the time limitations of the Declarant Control Period, Declarant's vote shall be the vote of the membership and Declarant may appoint and remove all or any of the Board of Directors and all officers until such time as Declarant releases such right by notice in writing delivered to the Board of Directors of the Association.

5.7 Voting. The voting rights of the membership shall be appurtenant to the ownership of the Homesites. Each Owner shall be entitled to one (1) vote for each Homesite owned. If only one of multiple owners of a Homesite is present at a meeting of the Association, that Owner is entitled to cast the vote allocated to that Homesite. If more than one of the multiple owners are present, the vote allocated to that Homesite may be cast only in accordance with the agreement of the majority in interest of the multiple owners. Majority agreement is conclusively presumed if any one of the multiple owners casts the vote allocated to that Homesite without protest being made promptly to the person presiding over the meeting by any of the other multiple Owners of the Homesite.

5.8 Proxies. The vote allocated to a Homesite may be cast pursuant to a proxy duly executed by a Homesite Owner. If a Homesite is owned by more than one person, each Owner of the Homesite may vote or register protest to the casting of votes by the other owners of the Homesite through a duly executed proxy. A Homesite Owner may not revoke a proxy given pursuant to this section except by written notice of revocation delivered to the person presiding over a meeting of the Association. A proxy is void if it is not dated. A proxy terminates one year after its date, unless it specifies a shorter term.

5.9 Amenities and Common Elements. Every park, recreation area, recreation facility, dedicated access and other amenities appurtenant to the Planned Community, whether or not shown and delineated on any recorded plat of the Property, shall be considered private and for the sole and exclusive use of the Owners of Homesites within the Property. Neither Declarant's execution nor the recording of any plat nor any other act of Declarant with respect to such areas is, or is intended to be, or shall be construed as a dedication to the public of any such areas, facilities or amenities.

5.10 Rules and Regulations. The Association may make reasonable rules and regulations governing the use of the Property, including the Common Elements, which rules and regulations shall be consistent with the rights and duties established by this Declaration. Copies of such rules and regulations shall be maintained by the Secretary of the Association and furnished to all Owners upon request. Such rules and regulations shall be binding upon the Owners, their families, visitors, guests, servants, lessees, agents, successors and assigns until and unless they are specifically amended, overruled or canceled in a regular or special meeting of the Association by the affirmative vote of seventy-five percent (75%) of the total vote of the membership of the Association.

5.11 Implied Rights. The Association may exercise any other right or privilege given to it expressly by this Declaration or by law, and every other right or privilege reasonably to be implied from the existence of any right or privilege given to it herein or reasonably necessary to effectuate any such right or privilege.

5.12 Personal Property for Common Use. The Association may from time to time acquire and hold tangible and intangible personal property and may dispose of the same by sale or otherwise.

ARTICLE 6

COMMON EXPENSES

6.1 Creation of the Lien and Personal Obligation of Assessments. Each Owner for each Homesite owned within the properties, by acceptance of a deed therefor, whether or not it shall be so expressed in such deed, is deemed to covenant and agree to pay to the Association: (1) annual

assessments or charges; and (2) special assessments for capital improvements, such assessments to be established and collected as hereinafter provided. The annual and special assessments, together with interest, costs and reasonable attorney's fees, shall be a charge on each Homesite and shall be a continuing lien upon each Homesite against which each such assessment is made, but only from such time as a Claim of Lien is filed as hereafter provided. Each such assessment, together with interest, costs and reasonable attorney's fees, shall also be the personal obligation of the person who was the Owner of such Homesite at the time when the assessment fell due.

6.2.0 The Common Expenses of the Planned Community include:

6.2.1 All amounts expended by the Association or the Architectural Review Board in enforcing the Declaration, the Bylaws, or the Architectural Policies and Procedures.

6.2.2 All amounts expended by the Association in carrying out any duty or discretion as may be required or allowed by the Declaration or the Bylaws.

All amounts declared to be Common Expenses in the Declaration or Bylaws.

6.2.2 All taxes and special assessments which may be levied from time to time by any governmental authority upon the Common Elements in the Planned Community.

6.2.3 Fees and expenses of managing and administering the Association and maintaining, repair or placement of the Common Elements;

6.2.4 Expenses of utility services for the Common Elements, including water, gas, electricity and sewer;

6.2.5 The costs of all insurance premiums on all policies of insurance obtained by the Board pursuant to the Declaration;

6.2.6 All rental and other payments required to be made for any property which is hereafter leased or rented for the use and benefit of the Association;

6.2.7 Amounts determined by the Board to be reasonably required as working capital of the Association, for a general operation reserve, for a reserve fund for replacements, for deficiencies arising from unpaid assessments, and such amounts as may be required for the purchase or lease by the Board or its designee, corporate or otherwise, on behalf of all Owners of any Homesite who has elected to sell or lease such Homesite or Homesite which is to be sold at a foreclosure or other judicial sale;

6.2.8 Special assessments for capital improvements;

6.2.9 Any ad valorem real property taxes and governmental special assessments affecting the Common Elements which are not assessed upon the Owners separately;

6.2.10 Fees and expenses for the promotion of the health, safety and welfare of the residents of the Property;

6.2.12 Maintenance and operation expenses for the streets, gatehouses, walking or jogging trails, any recreational facilities (pools, tennis courts or other similar recreational amenities constructed by Declarant or approved by the Association after the Declarant Control Period), any future Community Center Building and Grounds, community garden, native plant nursery, playground, wetlands, parks and other properties owned, leased or used by the Association or for which the Association has maintenance responsibility.

6.2.13 Costs and expenses that the Association incurs to arrange with third parties to furnish trash collection, snow removal, and other common services to each Homesite or Residence Unit.;

6.2.14 Costs and expenses for the acquisition, improvement, repair and maintenance of the properties, services and facilities owned, leased or acquired by the Association;

6.2.15 Costs and expenses for the employment of third-party managers for the Common Elements, accountants, attorneys and other professionals to represent the Association when necessary;

6.2.16 Costs and expenses to purchase, install, maintain and replace, if damaged, at Association expense, all street directional and regulatory signs in the Development Area.

6.2.17 Costs and expenses of maintenance and landscaping on the rights of ways of any public street or road abutting the Development Area, including entranceways, identifying signs and any landscape berm within the boundary of the Development Area.

6.2.18 Cost and expenses of maintenance of any reserved utility easements, including drainage easements, whether located within the Development Area, regardless of ownership.

6.2.19 Costs and expenses for the procurement and maintenance of fidelity and performance bonds for its officers, agents and employees.

6.2.20 All Security Expenses.

6.2.21 All other amounts necessary to carry out the responsibilities of the Association under the terms of the Declaration or the Bylaws.

6.2.21 Any valid charge against the Association or against the Common Elements as a whole.

6.2.23 Expense agreed upon as Common Expense by the Association and lawfully assessed against Owners of Homesite or Residence Units in accordance with the Declaration or Bylaws.

6.2.24 Any other expense declared a Common Expense by the provisions of the Declaration or the Bylaws.

6.3 Special Assessments for Capital Improvements. In addition to the assessments provided for above, the Association may levy special assessments for the purpose of paying, in whole or in part, the cost of construction of any new improvement or reconstruction or replacement of any existing improvement within the Common Elements, including the cost of any fixtures or personal property relating thereto; provided that such assessment shall have been approved by the vote of the holders of at least two-thirds (2/3) of the total vote of the Association at a regular or special meeting duly called, written notice of which shall have been given in the manner specified in the Bylaws of the Association. The due date of any special assessments shall be fixed in the resolution or resolutions authorizing such assessments. Special Assessments shall be assessed at a uniform rate as applied to Regimes.

6.4 Emergency Special Assessments. The Association may levy an emergency special assessment when, in the sole determination of the Board, there is potential danger of damage to persons or property. Such emergency special assessments may be utilized to pay for preventative, protective or remedial construction, reconstruction, improvements, repairs or replacements. Events justifying emergency special assessments include, but are not limited to, hurricanes, floods, and Emergency special assessments shall be collectible from Homesite and Residence Unit Owners in such manner as the Board shall determine.

6.5 Certificates. The Association shall, upon request by an Owner or prospective Owner or such person's agent, and for a reasonable charge not to exceed \$50.00, furnish a certificate signed by an officer of the Association setting forth whether the assessments on a specified Homesite have been paid. A properly executed certificate of the Association or by its Manager as to the status of assessments on a Homesite is binding upon the Association as of the date of its issuance.

6.6 Procedure for setting Annual and Special Assessments. The Board of Directors shall annually adopt a proposed budget and the annual assessment for each Homesite for the next year. Within 30 days after adoption of any proposed budget for the Association and assessments for the Homesite Owners, the Board shall provide a summary of the budget and assessments to all Homesite Owners, and shall set a date for a meeting of the Owners to consider ratification of the budget and the assessments based thereon not less than 14 nor more than 30 days after mailing of the summary. There shall be no requirement that a quorum be present at the meeting. The budget and the assessments based thereon are ratified unless at that meeting a majority of all Owners in person or by proxy rejects the budget. In the event the proposed budget is rejected, the periodic budget last in effect and the assessments based thereon shall be continued until such time as the Owners ratify a subsequent budget proposed by the Board of Directors. In the event that the Association proposes a special assessment, it shall be set forth as a separate item in connection with the annual proposed budget and the procedure for setting the special assessment shall be as set forth above, except that the special assessment shall be ratified separately from the other portions of the budget.

6.7 Effect of Nonpayment of Assessments; Remedies of the Association. Any assessment not paid within thirty (30) days after the due date shall bear interest from the due date at the rate of twelve percent (12%) per annum or the maximum interest rate permitted to be legally charged under The Planned Community Act at the time of such delinquency, whichever is greater, and shall constitute a

lien on the Homesite when a Notice or Claim of Lien upon recordation in the Office of the Clerk of Court of Moore County, by the Association setting forth the name of the Owner, the Identifying Number of the Homesite, when the Assessment became due, the name of any subsequent Owner transferred the Homesite since the Assessment became due, and the amount owed, exclusive of any collection expense. In addition to such interest charge, the delinquent owner shall also pay such late charge as may be allowed by the Planned Community Act. The Association may bring an action at law against any Owner personally obligated to pay the same, and/or foreclose the lien against the property, and interest, late payment fee, fines, cost and attorneys' fees of such action of foreclosure shall be added to the amount of such delinquent Assessment. Notwithstanding the foregoing, however, nothing herein contained shall be construed to obligate the Board to bring any legal action or to prosecute any such action to a final conclusion if it is determined by the Board that it would be in the best interest of the Association to forego, to delay or to discontinue any such legal proceeding. No Owner may waive or otherwise escape liability for the Assessments provided for herein by nonuse of the Common Area or abandonment of his Homesite.

The Association's lien maybe foreclosed as provided in the Planned Community Act, as the same may be in effect at the time that foreclosure is commenced.

6.8 Collection. The Board shall take prompt action to collect the full amount of all fees, charges, assessments and other amounts, including any installment thereof, due from any owner which remain unpaid for more than ten (10) days from the respective due date for payment thereof. In the event of failure by any owner to pay within said ten (10) days any such amount, then the entire balance of all such amounts, including, without limitation, all amounts which would otherwise be payable in installments, may, at the option of the Treasurer of the Association, be accelerated and be declared immediately due and payable in full, without notice.

6.9 Initial Limitation on Assessments. The initial monthly annual assessment of the first year until the first annual budget is adopted shall not exceed \$10 per month, or \$120 per year, for unimproved Homesites or \$50 per month or \$600 per year for Homesites with the issuance of a Building Permit for any Residence Unit.

6.10 Rate of Annual Assessment. Both annual and special assessments must be fixed at a uniform rate for all Homesites and may be collected on a monthly, quarterly or yearly basis or such other periodic basis as the Board of Directors of the Association may set. Emergency special assessments shall be collectible from Homesite and Residence Unit Owners in such manner as the Board shall determine.

6.11 Date and Commencement of Annual Assessment. The annual assessments provided for herein shall commence as to each Homesite on the first day of the month following the conveyance of that Homesite by Declarant to an Owner. The first annual assessment shall be adjusted according to the number of whole months remaining in the calendar year and shall be paid at closing along with an additional two (2) months assessment to be used as an initial unspecified reserve.

6.12 Subordination of the Lien to Mortgages. The liens provided for herein shall be subordinate to the lien of any first mortgage or deed of trust if, but only if, all such assessments with respect to such Homesite having a due date on or prior to the date such mortgage or deed of trust is filed of record have been paid. Sale or transfer of any Homesite shall not affect the assessment lien or liens provided for in the preceding sections. No such sale or transfer shall relieve such Homesite from liability for any assessments thereafter becoming due or from the lien thereof, but the liens provided for herein shall continue to be subordinate to the lien of any first mortgage or deed of trust filed prior to the time of transfer. Such subordination is merely a subordination and shall not relieve the Owner of the mortgaged or pledged property of his personal obligation to pay all assessments coming due at a time when he is the Owner.

6.13 Exempt Property. Each Homesite which is subject to this Declaration shall be exempt from the assessment, charges and liens created herein while owned by Declarant.

All Common Elements, including any Homesite which may be designated for use as such by Declarant, shall be exempt from the assessments, charges and liens created herein.

The grantee in conveyances made to utility companies for wells, tanks, pipelines, treatment plants and dispersion fields, liens, pumping stations and maintenance facilities or for the purpose of creating any utility easement;

All properties exempted from taxation by the laws of the State of North Carolina upon the terms and to the extent of such legal exemptions (Homestead exemptions shall not be considered an exemption);

ARTICLE 7

COMMON ELEMENTS

7.1 Common Elements. "Common Elements" means all real and personal property, together with those areas within dedicated portions of the Development Area and the Property, which may be deeded to, acquired or leased by the Association for the common enjoyment of the members of the Association; or, any reserved easement or structure that by this Declaration is the responsibility of the Association for ongoing maintenance, repair and replacement. It is the intention of Declarant that essentially all of the Development Area other than the Homesites will be conveyed to the Association at some point and be Common Elements, which includes, but is not limited to recreational sites, sewer and drainage areas, and other areas shown on any recorded plat other than Homesites. The Common Elements may consist of the remaining portion of the Property including, but not limited to, any real property conveyed to the Association, which may include but not be limited to, vehicles, equipment, and the ownership and / or maintenance of the roadsides, shoulders, landscape berms, drainage areas, landscaping, boundary fencing, signs at the entrances and along said roadways, any recreational site(s) and facility(s), maintenance building(s) and equipment, storm sewers, drainage, walking and jogging trails and gas line easements. The Common Elements shall ultimately consist of the remaining portions of the Development Area after deleting the (i) Homesites, (ii) Utility Areas, and (iii) such other areas, if any designated to be excluded by Declarant on the filed plat or in this Declaration.

7.2 Easements Affecting Common Elements.

Subject to Declarant's Development Rights, the Members have an easement(i) in the Common Elements for purposes of access to their Homesites and (ii) to use the Common Elements and all real estate which may become Common Elements for all other purposes, except as otherwise provided in the Declaration.

The Declarant has an easement through the Common Elements as may be reasonably necessary for the purpose of discharging the Declarant's obligations or exercising special Development Rights reserved in the Declaration, including reserved access rights over, upon and through all streets. Every Owner shall have a right and easement of enjoyment in and to the Common Elements owned by the Association, or for which the Association has maintenance responsibility, which shall be appurtenant to and shall pass with the title to every Homesite, subject to the following provisions: The right of the Association to suspend the voting rights and right to use recreational facilities that are Common Elements by an Owner (and the occupants of such Owner's Residence Unit) for any period during which any assessment against said Owner's Homesite or Residence Unit remains unpaid; and for a period not to exceed sixty (60) days for an infraction by an Owner or by any occupant of such Owner's Residence Unit of the Association's rules and regulations;

7.1.1 The right of the Association to dedicate or transfer, or to grant an easement in or to all or any part of the Common Elements to Declarant, any public agency, authority or utility for such purposes and subject to such conditions as may be agreed to by the Association and the grantee expressed in an instrument agreeing to such dedication, transfer or grant, signed by the Association and placed upon the records of the Register of Deeds of Moore County;

7.1.2 The right of the Association to provide for the exclusive use by an Owner (or any occupant of an Owner's Residence Unit) of certain portions of the Common Elements at certain designated times and for such functions as may be from time to time permitted under said rules and regulations and the right of the Association to charge a fee for such exclusive use.

7.1.3 The reservation by Declarant of all necessary easements, including the right to grant easements, including but not limited to access, utility and drainage easements.

7.1.4 The right of the Declarant, in its sole discretion, and at no cost to any Owner, to grade, pave or otherwise improve any street shown on any recorded plat of the property.

7.1.5 The right of the Association to charge reasonable fees for the use of any recreational facility situated in the Common Elements.

7.1.6 The right of the Association, in accordance with the Declaration and Bylaws, to borrow money for the purpose of improving the Common Elements and in aid thereof to mortgage said property, and the rights of such mortgage in said properties shall be subordinate to the rights of the homeowners hereunder.

7.1.7 The right of the Declarant to develop The Planned Community and to sell or lease Homesites or Residence Units to purchasers or lessees. As a material condition for ownership of a Homesite or Residence Unit, each Owner releases Declarant from any claim that the Owner might have for interference with his quiet enjoyment of the Common Elements due to the development of The Planned Community, whether or not the construction operations are performed on the Common Elements or any Homesites owned by Declarant, and each Owner acknowledges and agrees that Declarant shall have the sole right to design, construction, development and improvement of the Property.

7.1.8 The right of the Declarant for so long as Declarant owns or has any use rights to any property subject to this Declaration, to transact any business necessary to consummate sales of the property throughout The Planned Community, including, but not limited to, the right to maintain sales office(s) within the Development Area, or on the Common Elements in locations(s) to be selected by Declarant, to have employees in such offices, to construct and maintain other structures or appurtenances which are necessary or desirable for the development and sale of the Property throughout The Planned Community including without limitation, sales models and parking areas; to post and display a sign or signs on any Homesites or Residence Units owned by Declarant or the Property; and to use the Common Elements and to show Homesites and Residence Units. Sales office signs and all other structures and appurtenances pertaining to the sale or development of property within The Planned Community shall not be considered Common Elements and shall remain the property of the Declarant. Further, Declarant may authorize other builder/developer(s) to exercise the rights reserved in this Section, singularly or in concert with Declarant.

7.1.9 The right of the Declarant to have a Permanent Sales Office Building and Operations after the expiration of the Declarant Control Period and after sales of all Homesites, including Homesites added pursuant to Article 2.2. No other commercial or real estate offices shall be located on the Common Elements or in The Planned Community. After the Declarant Control Period, regardless of whether Declarant owns or has any use rights to any property in the Planned Community, Declarant or its assignee shall have the right but not the obligation, to continue to exercise the rights granted to Declarant to sell and lease property at no cost or charge of any kind, except for the payment of ad valorem taxes on any property so occupied and that any such retained privilege shall be deemed to be one (1) Residence Unit Homesite for which the Declarant or its assigns, shall be subject to Common and Special Expense assessment in the manner as all other Owners.

7.2 Usage Rights. The Common Elements shall be used only for the purposes for which they are intended in providing services and facilities for the common use and enjoyment of the Homesite owners and occupants of the Residence Units. There shall be no obstruction of the Common Elements, nor shall anything be kept or stored on any part of the Common Elements by an Owner without the prior written consent of the Association, except as specifically provided herein. Nothing shall be altered on, constructed in, or removed from the Common Elements by an Owner, except upon the prior written consent of the Association.

7.3 Area Boundaries and Conveyance of Common Elements. Each Homesite or Homesite shall have the boundaries set forth in the plats filed in the County Registry of Deeds by Declarant as each phase is developed and on subsequent plats of additional property made subject to this Declaration. The Common Elements, as defined herein, when owned by the Association, shall remain undivided, and no right shall exist to partition or divide said Common Elements except as provided herein. The

Common Elements are intended for the use and enjoyment of the Homesite and Residence Unit owners and their guest and invitees. Title to the Common Elements shall remain vested in Declarant until the expiration of the Declarant Control Period. Notwithstanding the manner in which fee simple title is held, the Association shall be responsible for the management, maintenance and operation of the Common Elements and for the payment of all property taxes and other assessments which are liens against the Common Elements from the after the date of recordation of the Declaration. Reasonably soon after the expiration of the Declarant Control Period, Declarant shall convey all of its right, title and interest in the existing Common Elements to the Association. Such conveyance shall be free and clear of all encumbrances and liens other than this Declaration, and the terms and conditions recited herein and any reserved easements necessary for the beneficial use of any of Declarant's remaining property that is not then a part of the Property. Declarant shall also convey and the Association shall accept at its cost any permanent stormwater and/or soil erosion measures and systems required for the improvement of the Planned Community.

7.4 Delegation of Use. Any Owner may delegate, in accordance with the Bylaws, and subject to the terms and conditions recited herein, his right of enjoyment to the Common Elements and facilities to the members of his family, his tenants, or contract purchasers who reside in his Residence Unit.

ARTICLE 8

FINANCING PROVISIONS

8.1 Approval of Owners and Holders of First Deeds of Trust. Unless at least seventy-five (75%) percent of the owners and holder of first deeds of trust on Homesites located within the Property have given their prior written approval, the Association shall not:

8.1.1 By act or omission seek to abandon, partition, subdivide, encumber, sell or transfer any real estate or improvements thereon which are owned, directly or indirectly, by the Association. The granting of easements for utilities or other purposes or the conveyance of such systems to governmental bodies shall not be deemed a transfer within the meaning of this clause.

8.1.2 Change the method of determining the obligations, assessments, dues or other charges which may be levied against an owner.

8.1.3 By act or omission change, waive, or abandon any plan of regulation, or enforcement thereof pertaining to the architectural design or the exterior appearance of residences located on Homesites, the maintenance of party walls or common fences and driveways, or the upkeep of lawns and plantings in the Planned Community.

8.1.4 Fail to maintain liability insurance coverage on the Common Elements.

ARTICLE 9

SEWAGE DISPOSAL AND WATER SYSTEM

9.1 Charges. Homesite Owners agree to pay any availability, connection or surcharge fee for water or sewer, which may be approved by the North Carolina Utilities Commission prior to connection to such system. All usage charges of any nature for the utilities shall be paid by the Owner.

9.2 Connection Procedure. No permits and/or approvals for the construction of improvements on any Homesites shall be granted to and approved by the Architectural Review Board unless and until the Owner of a Homesite desiring such approval shall have made satisfactory contractual arrangements with a licensed plumber, approved by Declarant for making connections to an on-site sewage disposal and/or the central water system for such property Owner's Homesite.

9.3 Private Water Wells. If the Declarant and the Architectural Review Board determine, in their sole discretion, that private wells may be constructed and drilled, said private water wells may be constructed or drilled only with the prior written consent of and pursuant to the specific policies, terms and restrictions established by the Architectural Review Board; and water therefrom may be used only for irrigation and / or heating and cooling purposes, and temporary potable use subject to the approval of local statutory regulations and then only until the permanent water system is installed.

ARTICLE 10
RESERVED EASEMENTS

10.1 Utility and Drainage Easements. Declarant and its successors and assigns reserve the right to construct and maintain utilities on the streets and roads of the Property either above or below ground and to make all necessary slopes for cuts or fills upon the Homesites as needed as determined by the Declarant. Declarant and/or assigns reserve perpetual utility easements under, over and across a strip ten (10) feet (unless otherwise noted on any recorded map, in which case said map shall govern) in width adjacent to and along the front, side and rear yard lines of each Homesite for the purpose of placing, laying, erecting, constructing, maintaining and operating, or of authorizing the placement, laying, erection, construction, maintenance and operation of utilities (including, without limitation, sewage, water(including irrigation), storm drainage, culverts, sprinkler lines, natural gas lines, TV wires, irrigation lines, security wires, street lights, electricity, gas, cablevision, telephone and telegraph). Within these easement areas, no structure, planting or other material (other than sod) which may interfere with the installation and maintenance of underground utility facilities shall be placed or permitted to remain unless such structure, planting or other material was installed by the Declarant. The Association, its successors and assigns, are hereby granted access to all easements within where such underground facilities are located for the purpose of operation, maintenance and replacement thereof.

10.2 No Interest in Utilities. The interest conveyed by Declarant to any of said Homesites by contract, deed or other conveyance, shall not in any event be held or construed to include the title to the water, gas, cablevision, sewer, storm sewer, electric light, power, telegraph and telephone lines, poles or conduits, or any other utility or appurtenances thereto constructed by Declarant, its agents, or by any utility company along or upon said Homesites, or any part thereof, to serve said property. The right to sell, convey or lease water, sewer and other utility lines and their appurtenances erected by or on behalf of Declarant is hereby expressly reserved to Declarant.

10.3 Easement for Use of Streets. Declarant hereby grants, conveys and assigns and sets over to every Owner, his family, tenants or bona fide guests the non-exclusive right of ingress, egress and regress over, upon and across the streets within the Property and they shall have the use of said streets for access to and from public highways adjoining the properties. The Declarant and/or the Association reserves the right at any time hereafter to dedicate and convey such streets to any appropriate governmental body or to the public, or to the Homeowner's Association.

10.4 Master Electronic Reception Apparatus. With the prior written consent of the Association, which may be withheld at its sole discretion, master antennas, satellite dishes, or cable television facilities may be located upon certain portions of the Property by the Association. Any such antennas, satellite dishes and connections shall be maintained in good order and repair by the Association. To the extent required to effectuate the foregoing plan, there shall be an easement in favor of each Residence Unit for the purpose of providing connection of the Residence Unit with the cable television facility or the master antenna or satellite dish most convenient thereto. The Common Elements shall be subject to a further easement for the placement thereon by the Association of such master antennas, satellite dishes, cable television facilities and appurtenances, and for the installation and maintenance thereon of connections to serve any Residence Unit. All of the foregoing easements are granted and reserved subject to the condition that their use and enjoyment shall not materially interfere with the use, occupancy or enjoyment of all or any part of the Residence Unit and the Common Elements servient to such easements or to which such easements are appurtenant. No other mast, tower or pole or outside television antenna, satellite dish, aerial or pole shall be erected, constructed or maintained on any Homesite or Residence Unit located in such a manner as to be visible from the Homesite or outside of such Residence Unit.

10.5 Inspection and Maintenance. Any Member of the Board, or any other person authorized by the Board, shall have an access easement to all Common Elements for the purpose of inspection, maintenance, repair or replacement of any part of the Property.

10.6 Other Reserved Easements. There is hereby reserved a ten-foot (10') easement across the

backyard lines of all Homesites for a jogging and/or walking trail.

ARTICLE 11

VARIANCES

11.1 Variances. The Architectural Review Board or the Declarant shall have power to and may allow reasonable variances and adjustments of these covenants, conditions and restrictions in order to overcome practical difficulties and prevent unnecessary hardships in the application of the regulations contained herein; provided, however, that such is done in conformity to the intent and purposes hereof; and, provided, also that in every instance such variance or adjustment will not be materially detrimental or injurious to other property or improvements located in the Property. Variances and adjustments may include, but not be limited to, height, size and setback requirements hereunder pursuant to the Policies and Procedures established by the Architectural Review Board. To be effective, a Variance must be recorded and indexed under the name of the Association and the Owner

ARTICLE 12

INSURANCE AND CASUALTY LOSSES

12.1 Insurance. The Board or its duly authorized agent shall have the authority to and shall obtain and maintain in effect insurance for all of the improvements which are a part of the Common Elements against loss or damage by fire or other hazards, including extended coverage, vandalism and malicious mischief, in an amount sufficient to cover the full replacement cost (subject to such "deductibles" as the Board may determine) of any repair or reconstruction in the event of damage or destruction from any such hazard. The Board shall also obtain and maintain in effect casualty and public liability insurance covering all Common Elements, such workmen's compensation insurance as may be required by law, all insurance which it may be required or authorized to obtain according to any amendment to this Declaration (all of which insurance shall be in accordance with the provisions of this Declaration), and such other insurance as the Board may from time to time deem appropriate and fidelity bond coverage as specified in FNMA Lending Guides, Chapter 3, Part 5, Insurance Requirements. Premiums for all such insurance shall be an expense of the Association.

12.2 Policies. All policies shall be written with a company holding a rating of "AAA" or better by Best's Insurance Reports. All policies shall be for the benefit of the Association and its mortgagees as their interests may appear. The original of all policies and endorsements thereto shall be deposited with the Board. The exclusive authority to adjust losses under policies maintained by the Board shall be vested in the Board or its duly authorized agent; provided, however, that no mortgagee having an interest in such losses may be prohibited from participating in the settlement negotiations, if any, related thereto. In no event shall the insurance coverage obtained and maintained by the Board hereunder be brought into contribution with insurance purchased by individual Owners or their mortgagees. Provision shall be made for the issuance of a certificate of insurance to each Owner and his mortgagee, if any, which shall specify the proportionate amount of such insurance attributable to the particular Owner's Homesite or Residence Unit. The Board shall conduct an annual insurance review which shall include a replacement cost appraisal, without respect to depreciation, of all improvements on the Common Elements by one or more qualified persons, at least one of whom should be a qualified building cost estimator. It shall be the individual responsibility of each Owner, at his own expense, to provide, as he sees fit, title insurance, homeowner's liability insurance, fire, casualty, theft and other insurance covering improvements, betterments and personal property damage and loss on his individual Homesite and Residence Unit. The Board or its duly authorized agent shall be required to make every effort to secure insurance policies that will provide for the following: (i) a waiver of subrogation by the insurer as to any claims against the Board of Directors, its duly authorized agent, the Owners, and their respective tenants, servants, agents and guests; (ii) a waiver by the insurer of its right to repair or reconstruct instead of paying cash; (iii) that the policies cannot be canceled, invalidated or suspended on account of anyone or more individual Owners; that the policies cannot be canceled, invalidated or suspended on account of the conduct of any

director, officer or employee of the Association, or its duly authorized agent, without a prior demand in writing delivered to the Association to cure the defect and the allowance of a reasonable time thereafter within which the defect may be cured by the Association, its agent or any Owner; (v) that any "other insurance" clause in the master policy exclude individual Owner's policies from consideration.

12.3 Use of Proceeds. If the damage is confined to the Common Elements, such insurance proceeds shall be used by the Association to defray the cost of such repairs. If the cost of such repairs is less than the amount of such insurance proceeds, the excess shall be retained by the Association or its duly authorized agent and placed in the reserve maintenance fund or such other fund as may be established for the purpose of providing for the maintenance, repair and replacement of the Common Elements. If the cost of such repairs exceeds the amount of such insurance proceeds, such excess may be provided either by means of a special assessment levied by the Board against all Owners in proportion to each Owner's share in the Common Elements or by means of an appropriation from the reserve maintenance fund or such other fund as may be established for the purpose of providing for the maintenance, repair and replacement of the Common Elements as the Board, in the exercise of its sole discretion, may determine.

ARTICLE 13

MAINTENANCE / REPAIR

13.1 Residence Units. Each Owner, at his own expense, shall keep all of his Homesite and Residence Unit and all exterior walls, roofs, equipment and fixtures therein, landscaping, water, storm drainage, sanitary sewer and other utility lines serving only his Residence Unit in good order, condition and repair and in a clean and sanitary condition, and shall be responsible for all redecorating and painting necessary to preserve or maintain the good condition and appearance of the Residence Unit, the patios, terraces, balconies, verandas and storage facilities, if any, and all other improvements and landscaping located on the Homesite. Each Owner shall also be responsible for all damages to any Residence Unit or any of the Common Elements, which may result from the neglect, negligence, misuse or misconduct of such Owner, Members of his family, his or their guests, employees, agents, invitees or tenants, and the cost of repair of any such damage shall be charged to such Owner and shall be due and payable as provided in Article 6 hereof.

ARTICLE 14

CONDEMNATION

14.1 General. Whenever all or any part of the Common Elements of the Property shall be taken by any authority having the power of condemnation or eminent domain, each Owner shall be entitled to notice thereof and to participate in the proceedings incident thereto unless otherwise prohibited by law. The award made for such taking shall be payable to the Association.

14.2 Common Elements. If the taking includes any part of the Common Elements on which improvements shall have been constructed (other than those contained within any Residence Unit) and if at least ninety percent (90%) of the total vote of the Association shall decide within sixty(60) days after such taking to replace said improvements, or any part thereof, on the remaining land included in the Common Elements and according to plans therefor first approved by the Association, then the Board of Directors shall arrange for such replacement. Alternatively, the Association shall treat the funds as a surplus.

ARTICLE 15

NOTICES

15.1 Form of Notice. Any notice required by the Act or by any of the documents shall be a written

notice delivered to the recipient or mailed to him by United States mail, postage prepaid, at his last known address if the recipient is an individual, or addressed to the President of the Association, if the recipient is the Association or the Board. All notices delivered by mail shall be deemed to have been given as of the date and hour of the postmark thereon, or in the absence of such postmark, as of the date and time of mailing. The address of a Homesite or Residence Unit Owner reflected on either the Moore County Tax Department records or the records maintained by the Secretary of the Association shall be the address of each Owner for making of all notices required from the Board or the Association, and it shall be the responsibility of each Owner to furnish the Secretary written notice of any error in such records or change of address.

15.2 Agent to Receive Service of Process. All notices, stipulations, writings or processes to be served upon the Association, or upon the Board shall be delivered to the Registered Agent of the Association or to the then acting President of the Association.

ARTICLE 16

TERM

16.1 Term. These covenants are to run with the land and shall be binding on all parties and all persons claiming under them until January 1, 2040, at which time said covenants shall be Automatically extended for successive periods of ten (10) years unless by vote of a Majority of the then Owners of the Homesites covered by these or substantially identical covenants, it is agreed to change said covenants in whole or in part.

16.2 Covenants Running with Land. The provisions of this Declaration and related documents shall constitute covenants running with the land, binding on the undersigned, its successors and assigns, and on all subsequent Owners of any part of the Property, together with their grantees, successors, heirs, executors, administrators, devisees, lessees, subleases and assigns. By the acceptance of any deed or other document conveying or transferring any interest in a Homesite or Residence Unit, the recipient thereof accepts and ratifies all covenants and restrictions contained herein and in the other documents. Each Homesite or Residence Unit Owner, by the acceptance of said deed or other document, covenants and agrees each with the other that he will join in the execution of any and all documents which are deemed necessary by the Board to renew or extend said covenants and restrictions from time to time and that any provision of law removing any limitation of time which would apply to this Declaration, if this Declaration were made after such provision of law becomes of effect, shall be deemed automatically to apply to this Declaration retroactively.

ARTICLE 17

ASSIGNMENT / AMENDMENT

17.1 Assignment. Any or all of the rights, powers and obligations, easements and estates reserved by or granted to the Declarant may be assigned by the Declarant as the case may be. Any such assignment or transfer shall be made by the appropriate instrument in writing in which the assignee or transferee shall join for the purpose of evidencing its consent to such assignment and its acceptance of the rights and powers, duties and obligations herein contained. Such assignee or transferee shall thereupon have the same rights and powers and be subject to the same obligations and duties as are herein given to the Declarant. After such assignment, Declarant shall be relieved and released of all obligations with respect to such rights, powers, obligations, easements or estates.

17.2 Amendments by Declarant. After the first conveyance of a Homesite by Declarant, Declarant shall retain the right to make any of the following amendments, which may be effected by the Declarant without consent of the Owners: (A) The Declarant or Association may amend this Declaration to correct any obvious error or inconsistency in drafting, typing or reproduction. (B) The Declarant or Association shall have the right to amend this Declaration to conform to the requirements of any law or governmental agency having legal jurisdiction over the Property or to qualify the Property or any Homesites and improvements thereon for mortgage or improvement loans made, insured or guaranteed by a governmental agency or to comply with the requirements of law or regulations of any

corporation or agency belonging to, sponsored by, or under the substantial control of the United States Government, the State of North Carolina, Moore County or the Town of southern Pines regarding purchase or sale in such Homesites and improvements, or mortgage interests therein, as well as any other law or regulation relating to the control of Property, including, without limitation, ecological controls, construction standards, aesthetics, and matters affecting the public health, safety and general welfare. © Any amendment allowed as a result of the exercise of any reserved Development Right or Special Declarant Right identified herein.

Any amendments made pursuant to this section shall not affect the residential character of the Planned Community or the common plan or scheme for residential development. Any and all such amendments shall be recorded in the office of the Register of Deeds, and upon recording the same shall become effective with respect to the matter to which such amendment pertains. Other amendments which do not affect materially any rights of any then Owners or his mortgagee or any amendment necessary to effect compliance with any other law may be made by Declarant by recording the same in the foregoing manner at any time prior to the earlier of (i) the date on which Declarant certifies to the Association that all of the Homesites have been conveyed to respective purchasers, or (ii) January 1, 2040. In the event that any such amendment does affect materially any rights of any then Owners or his mortgagee, such amendment shall be valid only upon the written consent thereto of all of the affected mortgages and fifty percent (50%) of the affected Owners of Homesites or Residence Units theretofore conveyed by Declarant. Any such amendment shall be certified by Declarant as having been duly approved and shall be effective when recorded in the office of the Register of Deeds.

7.5 Amendments by Residence Unit or Homesite Owners. At any time after the expiration of the Declarant Control Period, this Declaration shall be amended in the following manner:

17.3 Proposed Amendments. The Board or any Member of the Association may propose an amendment to this Declaration. Such proposed amendment must be submitted in writing to the Secretary of the Association at least twenty (20) days prior to the date of the special or regular Association meeting at which the proposal is to be considered.

17.4 Notice. A statement of the subject matter of the proposed amendment or amendments shall be included in the notice of any Association meeting at which the proposed amendments are to be considered.

17.5 Resolution. A resolution for the adoption of a proposed amendment may be proposed by any Member of the Association, including any officer of the Board. The resolution for adoption must be approved by the Members entitled to cast not less than sixty-six and two-thirds (66 2/3%) of the total authorized vote of the Association; provided, however, that any proposed amendment which would increase or decrease the percentage vote required to effect any action by the Association must be approved by Members having, in the aggregate, the larger of such percentage vote as theretofore required or as would thereafter be required if such amendment were approved.

17.6 Absentee Vote. Members not present at any meeting may vote by proxy or by written vote as provided in the Bylaws.

17.7 Proviso. Notwithstanding any other provision hereof, no amendment shall change the boundaries of a Homesite or Residence Unit nor the share in the Common Elements appurtenant to it, unless the record Owners of all Homesites and/or Residence Units shall approve the amendment in writing, and so long as Declarant owns three or more Homesites or Residence Units, no amendment may be made without the written approval of Declarant.

17.8 Execution and Recording. A copy of each amendment adopted pursuant to this Article shall be attached to an affidavit certifying that the amendment was duly adopted, which affidavit shall be executed by the President and attested by the Secretary in recordable form. The amendment shall be effective when such Amendment together with the Affidavit are filed for record in the Office of Register of Deeds.

ARTICLE 18
ENFORCEMENT

18.1 Violation of Covenants. If the parties hereto or the Owners, or any subsequent third parties, or their heirs, successors or assigns, shall violate or attempt to violate any of the covenants herein, it shall be lawful for any other person or persons owning any real property herein described or situated in The Planned Community and which is subject to these or substantially identical covenants to prosecute any proceedings at law or in equity against the person or persons violating or attempting to violate any such covenant to prevent it, her, him or them from so doing and / or to recover damages or other expenses arising from said violation. In addition, the Association and to the limited extent provided in Article 4.2.3, shall have the authority, at their sole option and discretion, to enforce the terms, conditions and covenants recited herein; provided, however, neither the Board nor the Architectural Review Board have the specific obligation to enforce any covenants herein, and neither shall be liable for any failure to enforce said terms, covenants and conditions.

18.2 Invalidity. Invalidity of any one of these covenants or any part thereof by judgment or court order in no way affects any of the other provisions which shall remain in full force and effect.

18.3 Laws and Ordinances. These covenants shall be in addition to any laws, ordinances, governmental zoning or regulations which maybe applicable to the Property herein described, and in the event such laws, regulations or ordinances may be more restrictive than these covenants, said laws, regulations or ordinances shall control.

ARTICLE 19
REMEDIES FOR VIOLATIONS

19.1 All provisions, restrictions, conditions, easements, covenants, agreements, liens and charges herein shall be binding on all of the Homesites within the Property and the Owners thereof, regardless of the source of title of such Owners, and any breach thereof if continued for a period of thirty (30) days [five (5) days in the event of an emergency situation] from and after the date that Declarant, the Association, or any other Owners shall have notified in writing the Owner or resident in possession of the Homesite or Residence Unit upon which or as to which such breach has been committed to refrain from a continuance of such action and to correct such breach, shall warrant the Declarant, the Association or other Homesite Owner, to apply to any court of law or equity having jurisdiction thereof for any injunction or other property relief, and if such relief be granted, the court may, in its discretion, award to the plaintiff in such action reasonable expense in prosecuting such suit, including reasonable attorney's fees.

19.2 Violations of any of the foregoing provisions, restrictions, conditions, easements, covenants, agreements, liens and charges shall not defeat or render invalid the lien of any mortgage or deed of trust made in good faith for value as to any Homesite or portion thereof in the Property but such provisions, restrictions, conditions, easements, covenants, agreements, liens, and charges shall be enforceable against any portion thereof acquired by any person through foreclosure or by deed in lieu of foreclosure for any violation of the provisions, restrictions, conditions, easements, covenants, agreements, liens and charges herein contained occurring after the acquisition of said property through foreclosure, or deed in lieu of foreclosure.

ARTICLE 20
DECLARANT EXEMPTIONS

20.1 Notwithstanding any other language or provision to the contrary to this Declaration or in any of the other related documents, Declarant shall be exempt from the covenants, restrictions and provisions contained in herein, so long as Declarant owns one or more Homesites or Residence Units. This

exemption is granted for the purpose of allowing Declarant to complete improvements and complete the sale (or lease with option to purchase) of all Homesites and Residence Units without restriction. Neither the Owner, the Association nor any use of the Property shall interfere with completion of construction of the buildings, the Residence Units or other improvements, or with the sale of the Homesites or Residence Units by Declarant. Declarant may make such use of the unsold Residence Units and Common Elements as may facilitate such completion and sale, including, but not limited to, maintenance of a sales office, model units, signs, storage areas, construction facilities and construction offices for the sale of the Homesite and sale and construction of the Residence Units covered by this Declaration.

ARTICLE 21

MISCELLANEOUS

21.1 Multiple Owners. If any Residence Unit or Homesite shall be owned as tenants in common by two or more persons, such persons shall be jointly and severally liable for the Common Expenses assessed against such Homesite or Residence Unit and for the prompt discharge of each and every obligation or duty imposed on such Owners by the Declaration and other governing documents.

22.2 Applicability to Third Parties. Each Owner of a Homesite and each Owner, lessee, tenant or occupant of a Residence Unit shall be bound to comply with the statutory provisions and shall comply with documents as the same maybe in effect from time to time and with the decisions, resolutions, rules and regulations of the Association, and Declarant as the same may be in effect from time to time, and failure to do so shall be grounds for an action to recover damages or to obtain injunctive and other equitable relief, or both.

7.6 Conveyance. Each Owner of a Homesite, by acceptance of a deed therefor, agrees that he has had full opportunity to inspect and examine same and waives any claim or demand which he might otherwise have had against the Declarant or any other person whomsoever as a result of any warranty, express or implied, or of any discrepancy between the Homesite as it then exists and as it is described in this Declaration, filed plats, the supplemental plats, the architectural plans and specifications or any other instrument.

22.3 Perpetuities. In any of the covenants, conditions, restrictions or other provisions of this Declaration shall be unlawful, void or voidable for violation of the rule against perpetuities, then such provisions shall continue only until twenty-one (21) years after the date of the survivor of the now living descendants of Barack Obama, President of the United States, and Jimmy Carter, George W. Bush, and George H.W. Bush, former Presidents of the United States.

22.4 Severability. Invalidity of any of these covenants or restrictions by judgment or court shall in no way affect any other provisions, which shall remain in full force and effect.

22.5 Rights of Mortgagees. Any mortgagee holding a first mortgage on any Homesite or Residence Unit may require that the loan documents evidencing and securing such loan contain provisions relating to reserve accounts for repairs and replacements, additional insurance, voting rights and such other matters as may be acceptable to the mortgagee and the Owner. However, such provisions shall be binding only as between such mortgagee and Owner and no such provision shall violate, restrict or modify the provisions of this Declaration and the other governing documents.

22.6 Declarant's Facilities. No Homesite or Residence Unit Owner or any other person shall have any rights of any nature, express or implied, in any adjacent recreational or other facility owned by Declarant or other party not included as a part of the Property. Declarant shall have the unrestricted right at any time, and from time to time, to lease, mortgage or otherwise convey or encumber, modify, close, terminate, limit operations and the membership, expand and otherwise manage and control any such facilities and other property.

22.7 Inspection and Maintenance. If any Property, including any Homesite or Residence Unit is not maintained as provided herein, Declarant shall have the right, but not the obligation, to maintain same and recover from the Association and the respective Owners at costs incurred in providing such maintenance. Any Member of the Board, Declarant's maintenance personnel, or any other person authorized by the Board, shall have reasonable rights of access to all Common Elements and

Homesites for the purposes of inspection, maintenance, repair or replacement of any part of the Property as provided in this section.

22.8 Waiver. The failure of the Association, the Declarant or any Homesite or Residence Unit Owner to enforce any covenant, restriction or other provision of the documents shall not constitute a waiver of the right to do so thereafter.

22.9 Construction. If any provision, sentence, clause, phrase or word of this Declaration or any other Association document is judicially held invalid or unenforceable for any reason, such holding shall not be deemed to affect, alter, modify or impair in any manner any other provision herein or in said documents. Whenever the context so permits, the use of the plural shall include the singular, the singular the plural, and the use of any gender shall be deemed to include all genders. The captions used herein and in the other Association documents are solely to aid in the location of the various provisions, and in no way shall such captions be construed to limit or define the subject matter of such provisions.

IN WITNESS WHEREOF, the Declarant has caused this Declaration to be executed and attested by its duly authorized corporate officers, and its corporate seal, or a reasonable facsimile thereof, to be affixed, all at the direction and approval of its Directors, to be effective the day and year first above written.

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ATTACHMENT “A”
Draft Town Council Findings of Fact
Special Use Permit Application SU-03-21

Finding of Fact #1:

The Town Council finds that the application is complete and that the facts submitted are relevant to the case because the request for Special Use Permit approval has met the specified submittal requirements as required in the Town of Southern Pines UDO Appendices and the evidence submitted was sworn testimony by qualified experts or provided through substantiated documentation.

Finding of Fact #2:

The Town Council finds that the application complies with UDO §2.21.7 Criteria for a Special Use Permit, Criteria A-F, in that:

A. The proposed special use shall comply with all regulations of the applicable zoning district and any applicable supplemental use regulations;

1 The Town Council finds that the application SU-03-21 does not deviate from any
2 applicable standards summarized in §3.5.8 *Central Business Zoning District Development*
3 *Standards* of the Unified Development Ordinance, does deviate from the Downtown
4 Transition Overlay District Development Standards allowed by UDO §2.46.3 (A) allowing
5 the rear setback to be no less than 6’ and does not deviate from any applicable supplemental
6 use regulations summarized in the applicable standards of the Unified Development
7 Ordinance.

B. The proposed special use shall conform to the character of the neighborhood in which it is located and not injure the use and enjoyment of property in the immediate vicinity for the purposes already permitted;

8 The Town Council finds that the single-family attached residential development is
9 surrounded by *Central Business, CB*, zoned parcels and Residential Mixed Housing, *RM-*
10 *2*, parcels promoting the quality of the existing neighborhood while maintaining
11 compatible scale and intensity of development.

C. Adequate public facilities shall be provided as set forth herein;

12 The Town Council finds the subject properties have access to and can be served by TOSP
13 public facilities.

D. The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district or substantially diminish or impair the property values within the neighborhood;

14 The Town Council finds that the proposed development is consistent with the existing
15 zoning district and standards.
16

- E. **The establishment, maintenance or operation for the proposed use shall not be detrimental to or endanger the public health, safety, comfort, or general welfare; and**

17 The Town Council finds that the development will be required to adhere to all site
18 development standards and building standards, including, but not limited to compliance
19 with the building and fire code. The applicants will be required to meet all conditions
20 imposed as well as meet all regulatory measures.

- F. **The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use;**

21 The Town Council finds that the proposed development complies with applicable standards
22 and regulations found within the Town of Southern Pines UDO that are based on the public
23 interest and welfare.

ATTACHMENT “B”
Draft Town Council Findings of Fact
Preliminary Plat Application S-47-21

Finding of Fact #1:

The Town Council finds that the application is complete and that the facts submitted are relevant to the case because the request for Preliminary Plat approval has met the specified submittal requirements as required in the Town of Southern Pines UDO Appendices and the evidence submitted was sworn testimony by qualified experts or provided through substantiated documentation.

Finding of Fact #2:

The Town Council finds that the application complies with UDO §2.20.5(G) Criteria for a Preliminary Plat, Criteria 1-6, in that:

1. **The application is consistent with the approved Sketch Plat, if applicable;**

This is not applicable.

2. **The application is consistent with the Comprehensive Plan, as well as any other adopted plans for streets, alleys, parks, playgrounds, and public utility facilities;**

The Town Council finds that the proposed Preliminary Plat is generally consistent with the standards set forth in the CLRP because the property is designated as commercial on the Future Land Use Map. The commercial designation applies to land dedicated to retail, professional office and higher density residential which may be incorporated into mixed-use developments,

3. **The proposed subdivision complies with the UDO and applicable state and federal regulations;**

The Town Council finds that the proposed subdivision generally complies with the UDO. The project will not be granted Site Plan approval per UDO §2.48 without necessary approvals from applicable state and federal agencies. The burden of demonstrating compliance with applicable state and federal regulations rests with the applicant per UDO §2.5.6.

4. **The proposed subdivision, including its Lot sizes, density, access, and circulation, is compatible with the existing and / or permissible zoning and future land use of adjacent property;**

The Town Council finds the proposed subdivision is compatible with the existing and permissible zoning and future land use designation of the adjacent properties because the proposed subdivision is meeting the development zoning regulations, providing 1,500 square feet for each dwelling unit for a total of 35 residential units allowed and the development is providing 20 dwelling units total.

5. **The proposed subdivision will not have detrimental impacts on the safety or viability of permitted uses on adjacent properties; and**

17 The Town Council finds that the proposed subdivision will not have detrimental impacts
18 on the safety or viability of permitted uses on adjacent properties because the land use is
19 an allowed use thus compatible with existing and allowable uses on adjacent properties per
20 the zoning map and the development is consistent with the CLRP.

6. **The proposed public facilities are adequate to serve the normal and emergency demands of the proposed development, and to provide for the efficient and timely extension to serve future development;**

21 The Town Council finds that public water and sewer utilities are available to serve the
22 project. Adequate stormwater facilities will be verified prior to approval of site plans for
23 the proposed subdivision.

CERTIFICATE OF SUFFICIENCY
AX-07-21: MPS Van Camp Property

To the Town Council of the Town of Southern Pines, North Carolina;

I, Elizabeth Robertson, Deputy Town Clerk, do hereby certify that I have investigated the attached petition and hereby make the following findings:

The petition contains an adequate property description of the area proposed for annexation, which is identified as follows: PIN: 857100575720 (PARID: 98000749)

The petition is signed by and includes addresses of all owners of real property lying in the area described herein. Per the Moore County Tax Department and Moore County Register of Deeds, the property owner is listed as Morganton Road Enterprises, LLC.

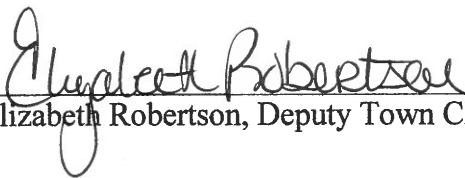
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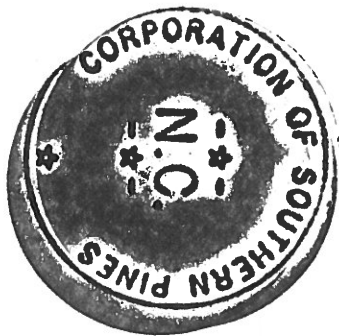
The petition contains an adequate property description of the area proposed for annexation, which is identified as follows: PIN: 857100572972 (PARID: 00052502)

The petition is signed by and includes addresses of all owners of real property lying in the area described herein. Per the Moore County Tax Department and Moore County Register of Deeds, the property owners are listed as Van Camp, Robert W. and Julie M, Trustees.

The areas described in the petition are contiguous to the Town of Southern Pines primary corporate limits, as defined by N.C.G.S. 160A-31.

In witness whereof, I have hereunto set my hand and affixed the seal of the Town of Southern Pines, North Carolina, this 20th day of December, 2021.


Elizabeth Robertson, Deputy Town Clerk



**RESOLUTION SETTING DATE OF PUBLIC HEARING
FOR ANNEXATION APPLICATION AX-07-21; MPS Van Camp Property**

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

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

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

NOW, THEREFORE BE IT RESOLVED by the Town Council of the Town of Southern Pines, North Carolina:

Section 1. That a public hearing on the question of annexation of the area described herein will be held at the Douglass Community Center at 6:00 pm on February 8, 2022.

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

Property Owners/Applicants:

Robert W & Julie M. Van Camp, Trustees
2 Regional Circle
Pinehurst, NC 28374-9796

Morganton Road Enterprises, LLC
2 Regional Circle
Pinehurst, NC 28374-9796

Property Identification Number (PIN) and Parcel Identification:

PIN: 857100575720; PARID 98000749
PIN: 857100572972; PARID 00052502

Size of Property:

Total Current Combined Acreage: 54.94 acres

Meets & Bounds Description:

A certain tract of land compromised of the following tracts being located in Southern Pines, Sandhills Township, Moore County, North Carolina; Tract 2 and Tract 3 as shown on the map entitled "Recombination Plate of 84.2457 Acres" recorded in Plat Cabinet 16 Slide 581 in the Moore County Registry, Located in Sandhills Township, Moore county, North Carolina and more particularly described as follows:

Commencing at a .5" iron rod set in the eastern U.S. Highway 15-501 right-of-way, said .5" iron rod set being located N 20°01'27" W a distance of 530.93' from NCGS Grid Monument "Simpson" having the N.C. Grid Coordinates: Northing 515,380.35', Easting 1,873,851.03; Thence from said iron rod and with the northeastern boundary of the 44.835 acre tract as shown on a map entitled "Survey for Oakhurst Farms, LLC" recorded in Plat Cabinet 8 Slide 192 in the Moore County Registry S 77°09'09" E a distance of 161.44' to a .5" iron rod set; THENCE with said northeaster boundary N 52°51'24" E a distance of 882.87' to a 0.75' existing iron rod and point of BEGINNING.

THENCE from said BEGINNING being the same 0.75' existing iron rod N 34°34'45" W a distance of 583.00' to an existing concrete monument; THENCE N 52°41'23" E a distance of 764.53' to an existing concrete monument; THENCE N 38°35'02" W a distance of 45.48' to a 2" iron pipe; THENCE N 53°32'04" E a distance of 479.94' to a 2" iron pipe; THENCE N 38°37'32" W a distance of 12.02' to a .5" iron rod set; THENCE N 00°01'18" W a distance of 536.79' to a .5" iron rod set; THENCE N 89°58'42" E a distance of 185.93' to a .5" iron rod set; THENCE N 00°01'18" W a distance of 70' to a .5" iron rod set; THENCE a curve to the left having a radius of 22.50' a chord bearing of N 45°01'18" W a chord distance of 31.82' to a .5" iron rod set; THENCE N 00°01'18" W a distance of 267.81' to a .5" iron rod set; THENCE N 89°58'42" E a distance of 170.37' to a .5" iron rod set; THENCE N 00°07'18" W a distance of 359.45' to a .5" iron rod set; THENCE a curve to the right having a radius of 2056.05' a chord bearing of S 86°10'26"

E a chord distance of 42.87' to a .5" existing iron rod; THENCE a curve to the right having a radius of 1036.13' a chord bearing of S 75°38'39" E a chord distance of 362.16' to a .5" existing iron rod; THENCE a curve to the right having a radius of 1544.46' a chord bearing of S 59°31'50" E a distance of 259.23' to a .5" existing iron rod; THENCE S 54°52'04" E a distance of 218.95' to a .5" existing iron rod; THENCE S 36°27'29" E a distance of 71.22' to an existing concrete monument; THENCE N 53°34'30" E a distance of 23.50' to a .5" existing iron rod; THENCE S 54°50'08" E a distance of 600.42' to a .5" existing iron rod; THENCE S 16°10'24" E a distance 37.01' to an existing concrete monument; THENCE S 52°51'44" W a distance of 1199.88' to an existing concrete monument; THENCE S 52°51'44"W A distance of 1678.24' to the BEGINNING and having an area of 54.94 acres

Maps of the area herein described is provided with this Ordinance as Attachment A.

Section 3. Notice of said public hearing shall be published in The Pilot, a newspaper having general circulation in the Town of Southern Pines, at least ten (10) days prior to the date of said public hearing.

Adopted this 11th day of January, 2022.

ATTEST:

TOWN OF SOUTHERN PINES

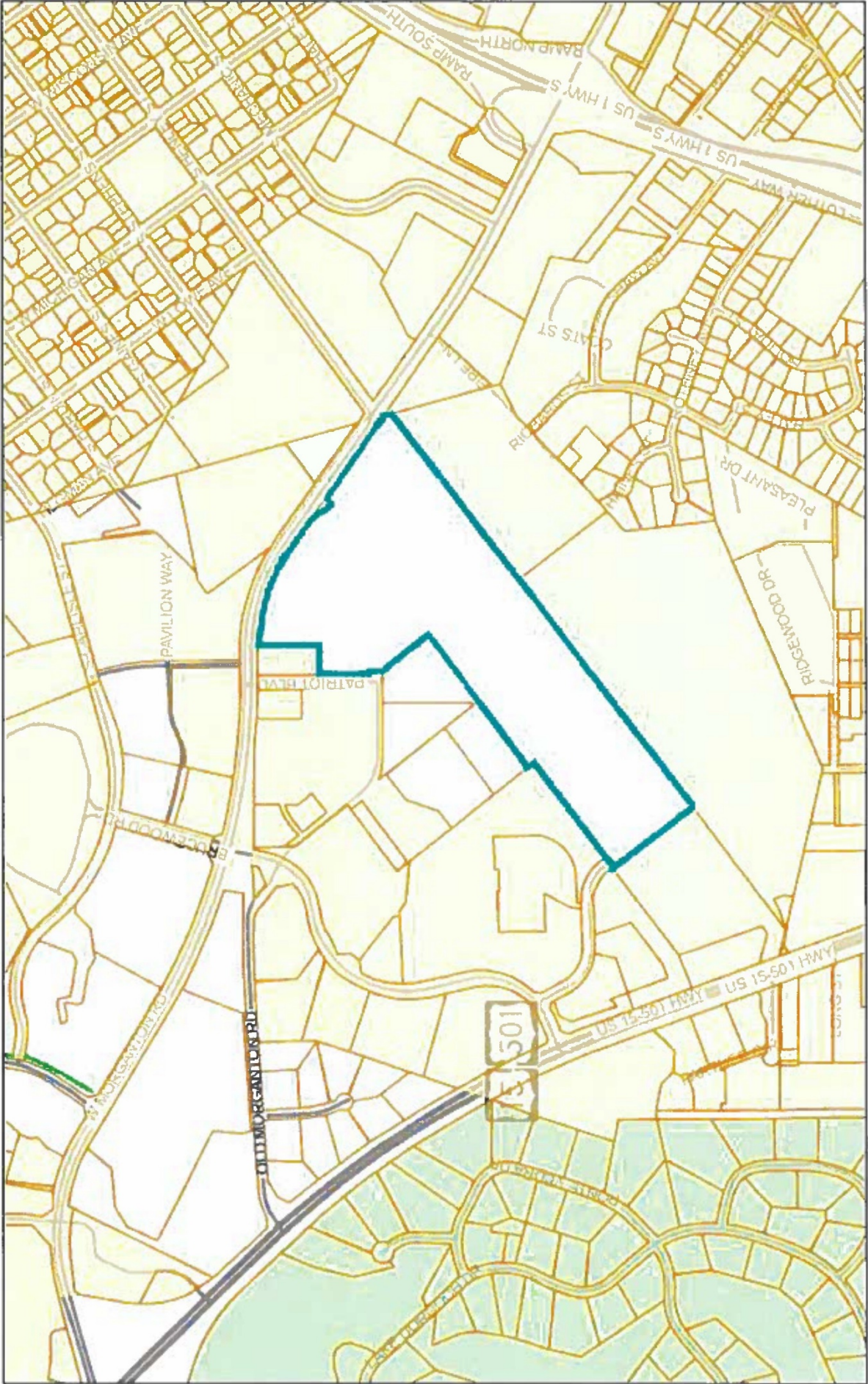
Elizabeth Robertson, Deputy Town Clerk

Carol R. Haney, Mayor

I certify that this resolution was adopted by the Town Council of the Town of Southern Pines at its meeting of January 11, 2022 as shown in the minutes of the Town Council for that date.

Elizabeth Robertson, Deputy Town Clerk

ATTACHMENT “A”



Name: MORGANTON ROAD ENTERPRISES, LLC VAN CAMP, THOMAS M TRUSTEE & OTHERS

Parcel ID: 98000749

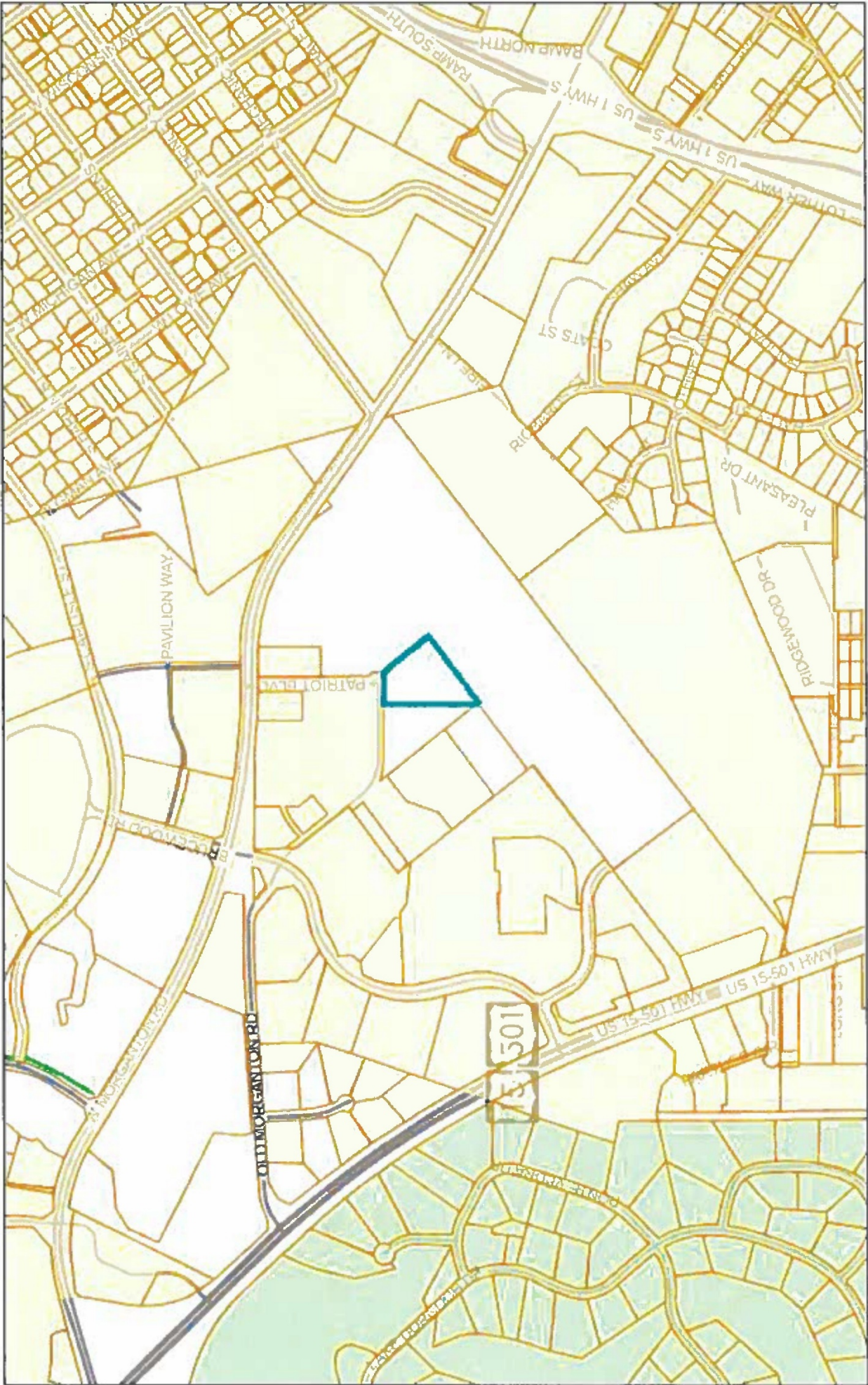
Deeded Acres: 52

1 inch = 800 feet

November 1, 2021



ATTACHMENT “A”



Name: VAN CAMP, ROBERT W & JULIE M TRUSTEES

Parcel ID: 00052502

Deeded Acres: 3.048

1 inch = 800 feet

November 1, 2021

Agenda Item

To: Reagan Parsons, Town Manager

From: Cindy Williams, Planning Technician

Subject: AX-08-21: Set a Public Hearing for Voluntary Annexation of Property Contiguous to the Corporate Limits of the Town of Southern Pines; 4.10 Acres; Petitioner: Benjamin Stout Real Estate Services, Inc.

Date: January 11, 2022

I. SUMMARY OF APPLICATION REQUEST:

Mr. Benjamin Stout, on behalf of Benjamin Stout Real Estate Services, Inc., is requesting voluntary annexation of contiguous parcels that are currently outside of the corporate limits of the Town of Southern Pines. Per the Moore County tax records, the subject parcels are identified as PIN 857400849276 (PARID 00041291); PIN 857400940142 (PARID 00041293); PIN 857404931919 (PARID 00041294); PIN 857404932803 (PARID 00041296); and PIN 857404932694 (PARID 00041297). Pursuant to Deeds recorded in the Moore County Register of Deeds office on October 8, 2021 in Book 5719 at Page 259 and Book 5720 at Page 35, the parcels are owned by Benjamin Stout Real Estate Services, Inc.

II. PRIOR TOWN COUNCIL ACTION:

At the December 14, 2021 Town Council Regular Meeting, the Town Council approved a *Resolution Directing the Clerk to Investigate a Petition Received Under G.S. 160A-31*.

III. PROJECT INFORMATION:

A. Physical Addresses:

100 Sullivan Drive
Southern Pines, NC 28387

7521 NC 22 Hwy
Southern Pines, NC 28387

7541 NC 22 Hwy
Southern Pines, NC 28387

7561 NC 22 Hwy
Southern Pines, NC 28387

7581 NC 22 Hwy
Southern Pines, NC 28387

B. Property Owner/Applicant:

Benjamin Stout Real Estate Services, Inc.
PO Box 53798
Fayetteville, NC 28305

C. Property Identification & Parcel Identification Numbers:

PIN 857400849276 (PARID 00041291)
PIN 857400940142 (PARID 00041293)
PIN 857404931919 (PARID 00041294)
PIN 857404932803 (PARID 00041296)
PIN 857404932694 (PARID 00041297)

D. Size of Property:

Total current combined acreage: 4.10 acres

IV. STAFF COMMENTS:

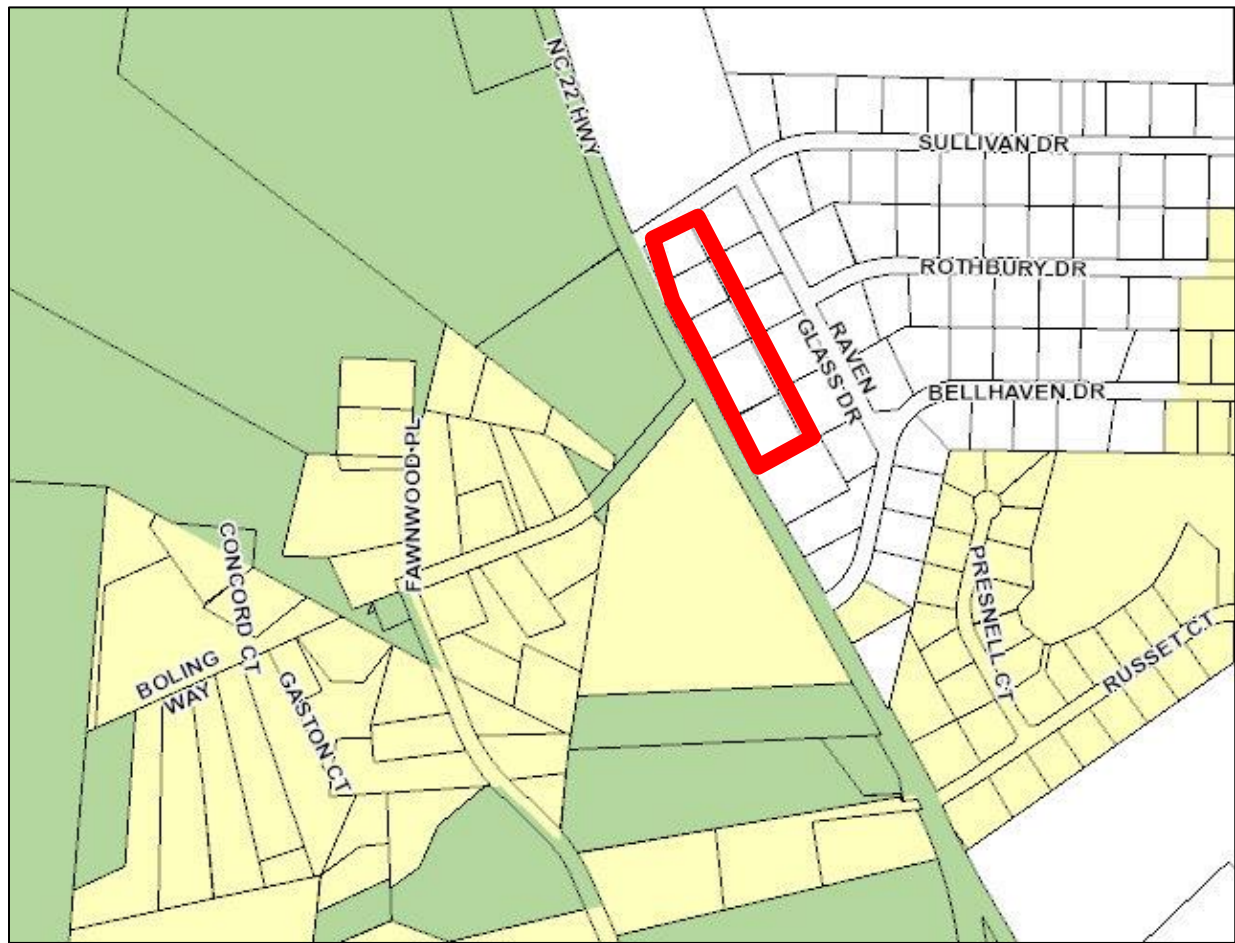
- The applicant has submitted an annexation petition accompanied by a map and a written metes and bounds description of the subject parcels.
- The request is a voluntary request for contiguous annexation as adjacent properties are within the corporate limits of the Town of Southern Pines (see Figure 1).
- The subject parcels are currently within the extra-territorial jurisdiction of the Village of Whispering Pines.
- The subject parcels are eligible for annexation into the Town of Southern Pines pursuant to an Annexation Agreement dated August 8, 2018 between the Town of Southern Pines and the Village of Whispering Pines.
- Planning staff notified the Village of Whispering Pines of the Petition for Annexation on December 15, 2021 which Ms. Linda Christopher, Village Clerk, acknowledged was sufficient.
- The adjoining property that is within Town limits is presently zoned RR (Rural Residential) (see Figure 2).
- At the December 14, 2021 Town Council Regular Meeting, the Deputy Town Clerk was directed to investigate the sufficiency of the petition for voluntary annexation of the subject properties.
- The purpose of this agenda item is for the Town Council to adopt a *Resolution Fixing Date of Public Hearing on Question of Annexation Pursuant to G.S. 160A-31, As Amended*.
- A separate application to establish initial zoning of the subject properties is required and as of the date of completion of this staff report (December 17, 2021), none has been received. Should the Town Council approve the annexation request on February

8, 2022, the zoning request will be heard at the March 24, 2022 Regular Meeting of the Planning Board and at the April 12, 2022 Regular Meeting of the Town Council. If the annexation is delayed or denied, the public hearings on the zoning application will also be delayed or withdrawn by Planning staff.

- The subject properties are adjacent to Town of Southern Pines properties that are identified as “Residential” on the Comprehensive Long Range Plan (CLRP) Future Land Use Map (see Figure 3). Per the CLRP 2015-2016 update:

“This designation encompasses the majority of Southern Pines’ residential land, providing for single-family and attached housing at development densities ranging from one unit per acre in areas that are less intensively developed to up to twelve units per acre in places that are clearly more urban. Elementary schools, civic uses, parks and neighborhood scale commercial services may be authorized through the rezoning process without amending the future land use map.”

Figure 1: Adjacent Property (Areas to be Annexed Outlined in Red)



 Town of Southern Pines Corporate Limits

 Town of Southern Pines ETJ

Figure 2: Zoning Map (Area to be Annexed Outlined in Black)

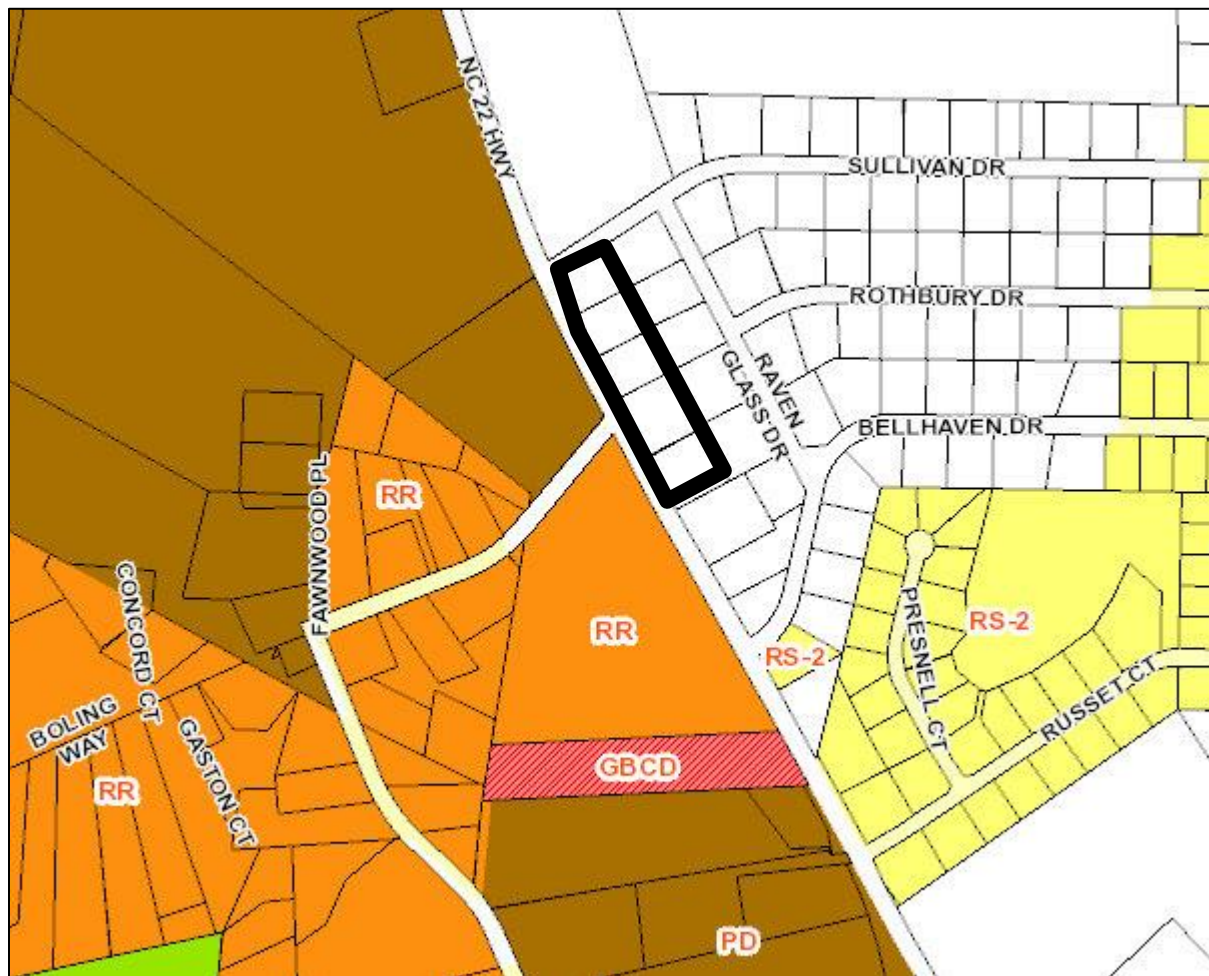
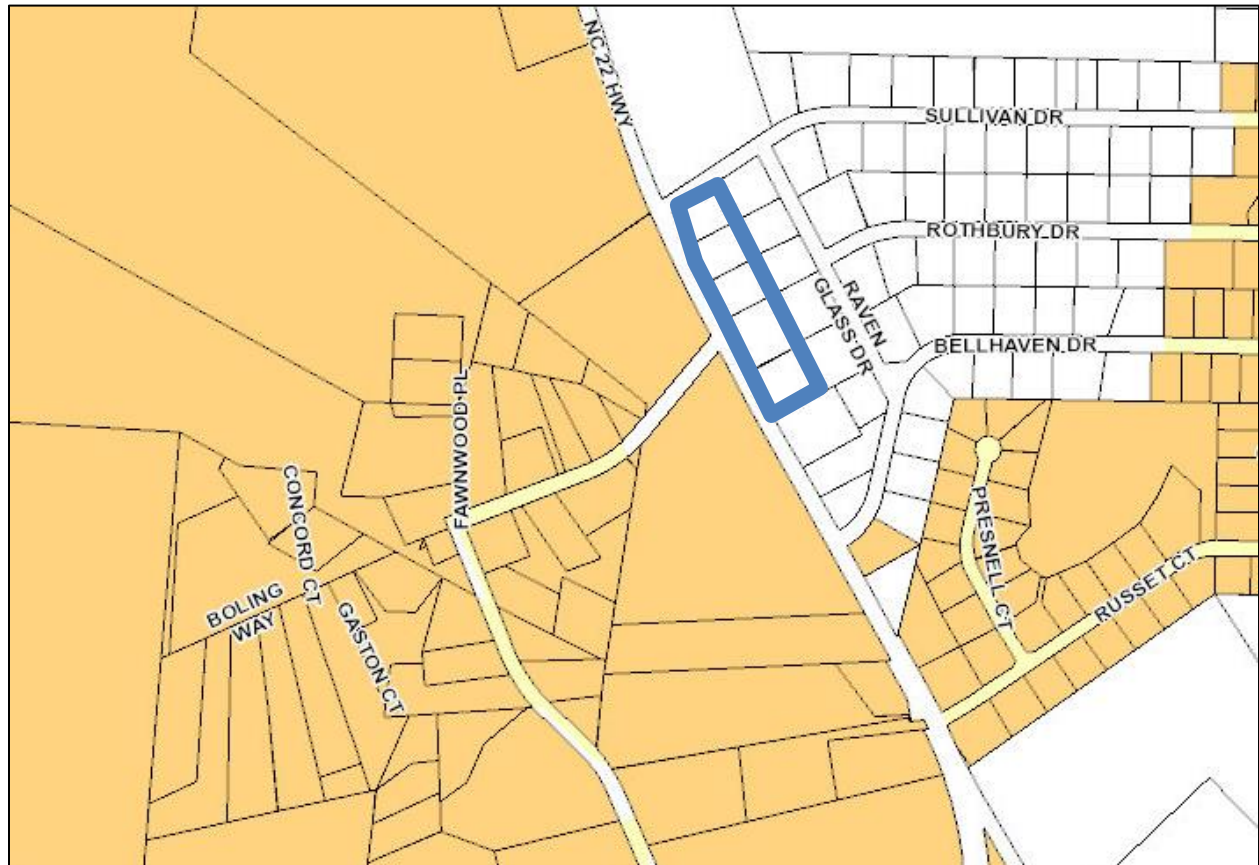


Figure 3: CLRP Future Land Use Map (Area to be Annexed Outlined in Blue)



V. ATTACHMENTS:

1. Petition
2. Written metes and bounds description
3. Survey of subject properties
4. Annexation Agreement
5. Village of Whispering Pines email correspondence

VI. TOWN COUNCIL ACTION:

Upon receiving a Certificate of Sufficiency from the Town Clerk, the Town Council may fix a date for the public hearing to consider the annexation request. The Town Council may choose one of the following motions, or any alternative they wish:

- 1) Per the Town Clerk's Certificate of Sufficiency, I move to adopt a resolution establishing **February 8, 2022** as the date of the public hearing for the voluntary annexation of property as defined in the submitted written metes and bounds description under application AX-08-21.

-or-

- 2) I move to not adopt a resolution establishing **February 8, 2022** as the date of the public hearing for the voluntary annexation of property as defined in the submitted written metes and bounds description under application AX-08-21.

PETITION FOR VOLUNTARY ANNEXATION

To the Town Council of the Town of Southern Pines, North Carolina:

1. I/We the undersigned owner(s) of real property respectfully request that the area described in the attached Exhibit A be annexed to the Town of Southern Pines.
2. The area to be annexed is **contiguous** to the Town of Southern Pines and the boundaries of such territory are described in the attached metes and bounds description, Exhibit A.
3. The area is identified as PIN: See Attached; PARID: See Attached.

Property Owner(s):

Name: Benjamin Scott Real Estate Services Inc. Signature: B. Scott

Address: PO Box 53798
Fayetteville, NC 28305

Name: _____ Signature: _____

Address: _____

Name: _____ Signature: _____

Address: _____

(Duplicate this form to add names, addresses and signatures of property owners, as necessary.)

PIN	PARID
857400849276	00041291
857400940142	00041293
857404931919	00041294
857404932803	00041296
857404932694	00041297

Metes & Bounds Description of Properties Petitioning for Annexation:



ENGINEERING - SURVEYING - DESIGNING - DRAFTING

Larry King & Associates, R.L.S., P.A.

P.O. Box 53787

1333 Morganton Road, Suite 201

Fayetteville, North Carolina 28305

P. (910) 483-4300 F. (910) 483-4052

www.LKandA.com

NC Firm License C-0887



December 6, 2021

LEGAL DESCRIPTION

BLUE FARM SECTION THREE

LOTS 6, 7, 8, 9 and 10

Moore County

4.10 ACRES

LYING in McNeills Township, Moore County, North Carolina, this subject tract being bounded on the northeast by Lots 1, 2, 3, 4 and 5, "Blue Farm, Section Three" as described and recorded in Plat Cabinet 4, Page 319, Moore County Registry; bounded on the southeast by the tract as conveyed to Charles Leon Hargrove, as described and recorded in Deed Book 1526, Page 328, Moore County Registry; bounded on the southwest by the northeast right of way margin NC Highway 22, a 60 foot public right of way; bounded on the northwest by the southeast right of way margin of Sullivan Drive, a 60 foot public right of way, and being more particularly described as follows:

COMMENCING from the northernmost corner of Lot 10, "Blue Farm, Section Three" as described and recorded in Plat Cabinet 4, Page 319, Moore County Registry, said corner of Lot 10 also being the **TRUE POINT AND PLACE OF BEGINNING**;

THENCE as and with the southwest boundary line of Lots 1, 2, 3, 4 and 5 "Blue Farm, Section Three" (Plat Cabinet 4, Page 319), South 26 degrees 41 minutes 00 seconds East for a distance of 880.77 feet to the southernmost corner of Lot 5;

THENCE as and with the southeast boundary line of Lot 6, South 63 degrees 19 minutes 00 seconds West for a distance of 205.80 feet to a point, the southernmost corner of Lot 6, located in northeastern right of way margin of NC Highway 22, a 60 foot public right of way;

THENCE as and with the southwest boundary line of Lot 6, North 27 degrees 17 minutes 00 seconds West for a distance of 200.05 feet to a point;

THENCE as and with the southwest boundary line of Lot 7, North 26 degrees 36 minutes 00 seconds West for a distance of 210.00 feet to a point;

THENCE as and with the southwest boundary line of Lot 8, North 26 degrees 01 minutes 00 seconds West for a distance of 155.00 feet to a point;

THENCE as and with the southwest boundary line of Lot 9, North 25 degrees 25 minutes 00 seconds West for a distance of 155.03 feet to a point;

THENCE as and with the southwest boundary line of Lot 10, North 23 degrees 28 minutes 00 seconds West for a distance of 124.99 feet to a point;

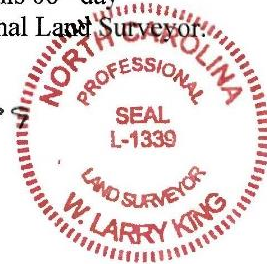
THENCE a curve to the right having a radius of 20.00 feet, an arc length of 28.36 feet and a chord bearing and distance of North 17 degrees 09 minutes 30 seconds East for a distance of 26.04 feet to a point located in the southeast right of way margin of Sullivan Drive (S.R. 1911);

THENCE as and with said right of way margin of Sullivan Drive, North 57 degrees 47 minutes 00 seconds East for a distance of 178.14 feet to the northernmost corner of Lot 10, said point also being the **TRUE POINT AND PLACE OF BEGINNING**.

Together with and subject to covenants, easements, and restrictions of record.
Said property contains 4.10 acres (178,591 square feet).

This description prepared by Larry King & Associates, R.L.S., P.A. on this 06th day of December, 2021, under the supervision of W. Larry King, a Professional Land Surveyor.

W. Larry King PLS 1339
W. Larry King, P.L.S., L-1339



Certificate of Ownership and Dedication

I (we) hereby certify that I am (we are) the owner(s) of the property shown and described hereon and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish minimum building lines, and dedicate all streets, alleys, walks, parks and other sites to public or private use as noted. Further, I (we) certify the land as shown hereon is within the platting jurisdiction of the Village of Whispering Pines, North Carolina.

MAY 15, 1990 *John H. Hight*
R. P. Johnson

A PRELIMINARY EVALUATION OF THIS SUBDIVISION INDICATES THAT INDIVIDUAL SEWERAGE SYSTEMS MAY BE USED. IT WILL BE NECESSARY TO CONSULT WITH THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL AND NATURE RESOURCES, DIVISION OF HEALTH SERVICES AND THE MOORE COUNTY HEALTH DEPARTMENT, PRIOR TO APPROVAL.

MAY 15, 1990 *James W. Fields, Jr.*
 DATE ENVIRONMENTAL HEALTH SUPERVISOR OR HIS AUTHORIZED REPRESENTATIVE

Certificate of Approval of the Design and Installation of Streets, Utilities, and Other Required Improvements

I hereby certify that streets, utilities and other improvements have been installed in an acceptable manner and in accordance with Village specifications in the subdivision entitled:

to that a survey has been made of the property and that the Village Clerk has been notified to ensure completion of all required improvements in case of default.

JUNE 14, 1990
James E. Stahl
 Village Administrator

Attest:
Maxine H. Dorman
 Village Clerk

Certificate of Approval by the Village Council
 I, *James E. Stahl*, President of the Village of Whispering Pines, do hereby certify that said Council fully approved the final plat of the subdivision entitled *BLUE FARM, SECTION THREE* on the *14TH* day of *JUNE*, 1990, and such approval is recorded in the Village Council Minutes dated *JUNE 14*, 1990.

James E. Stahl
 President

NOTE: DRAINAGE EASEMENTS AS SHOWN HEREON TO BE SET ASIDE BY BUILDING CONSTRUCTION.

NO NEW STREETS OR ROADS ARE CREATED BY THIS PLAN.

STREETS AND ROADS SHOWN HEREON ARE DESIGNATED "PUBLIC".

SEDS OF CURBURE (EXPRESSED AS A RATIO OF PRECISION) 1/1600

COORDINATES CALCULATED BY COORDINATE METHOD.

REFERENCE: DEED BOOK 345, PAGE 133, MOORE COUNTY REGISTRY.

■ DENOTES CONCRETE PERMANENT CONTROL CORNER

○ DENOTES NEW IRON STAKE

I, H.D. GILKUSON, CERTIFY THAT THIS PLAT WAS DRAWN BY ME FROM MY ACTUAL SURVEY. THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES. THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED, WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER AND SEAL, THIS 1ST DAY OF MAY, 1990.

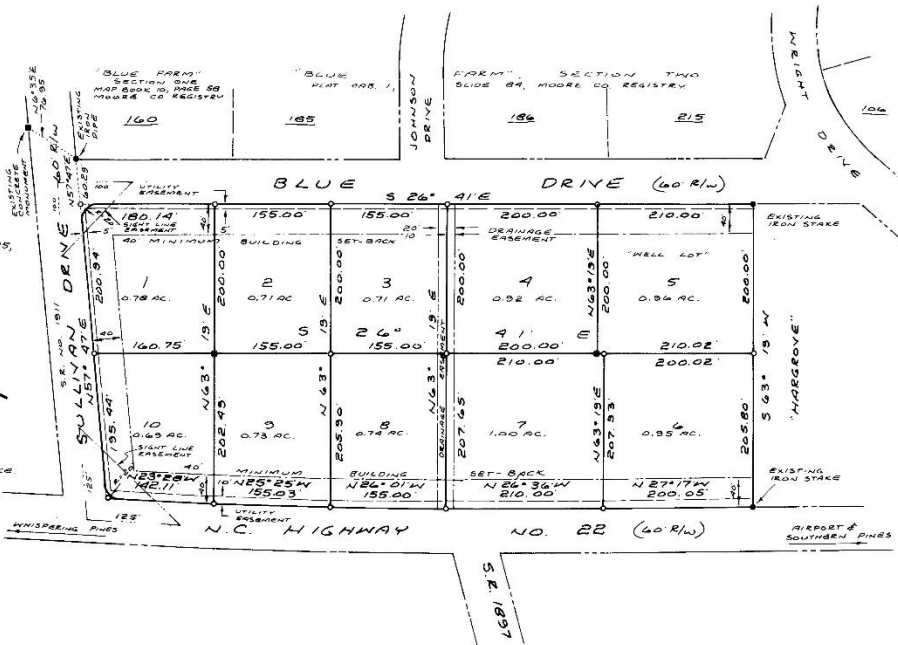
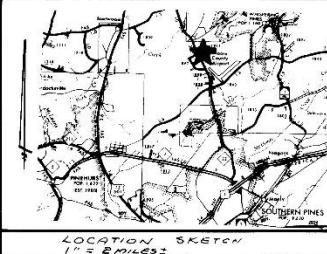
L-2508 *H.D. Gilkison*
 R.L.S. NO. REGISTERED SURVEYOR

NORTH CAROLINA, MOORE COUNTY
 EMERLY ANN CADELL, A NOTARY PUBLIC OF THE COUNTY AND STATE AFORESAID, CERTIFY THAT H.D. GILKUSON, A REGISTERED LAND SURVEYOR, PERSONALLY APPEARED BEFORE ME THIS DAY AND ACKNOWLEDGED THE EXECUTION OF THE FOREGOING INSTRUMENT THIS 1ST DAY OF MAY, 1990.

Emery Ann Cadell
 NOTARY PUBLIC MY COMMISSION EXPIRES: AUGUST 12, 1990



JUN 15 1990
 MOORE COUNTY, NC



BLUE FARM, SECTION THREE

PROPERTY OF O.D. JOHNSON AND J.N. WRIGHT
 MOORE COUNTY, NORTH CAROLINA
 MAY 15, 1990
 AMERICAN SURVEYING & MAPPING, ET. I, WEST END, N.C.

0 100 200 400 600

O.D. JOHNSON
 204 SAND LANE
 SOUTHERN PINES, N.C. 28387

NORTH CAROLINA

MOORE COUNTY

ANNEXATION AGREEMENT

THIS AGREEMENT is made this 8th day of August, 2018, by and between the Town of Southern Pines (hereafter referred to as "Town") and the Village of Whispering Pines (hereafter referred to as "Village"), both duly incorporated North Carolina municipalities.

WHEREAS, the primary limits of the Town and the Village are in proximity to one another; and,
WHEREAS, the Town and the Village wish, when appropriate, to incorporate lands via annexation procedures; and,

WHEREAS, the Town and the Village wish to maintain positive relations and develop an orderly and efficient pattern of corporate jurisdiction; and,

WHEREAS, the Town and the Village entered into a joint annexation agreement on November 11, 1997 for a duration of twenty (20) years; and,

WHEREAS the Town and the Village re-established the same joint annexation agreement on February 7, 2018 for a duration of six (6) months;

NOW, THEREFORE, the parties agree, pursuant to the provisions of Part 6, Article 4A, Chapter 160A of the North Carolina General Statutes, as follows:

1. The duration of this annexation agreement shall be for four (4), five-year periods, totaling twenty (20) years from the effective date of this agreement.
2. Upon the expiration of each five-year period, the agreement shall automatically renew under its current terms, unless either party requests a revision to the agreement. The party desiring a revision shall provide written notice to the other, at least ninety (90) days prior to a five-year expiration period.
3. Attached hereto and incorporated herein by reference is Exhibit A, a map of a portion of the jurisdictions of the Town and the Village in addition to currently unincorporated areas between them.
4. No portion of the land represented in blue on the map in this agreement as Exhibit A is subject to annexation by the Town during the duration of this agreement, except under the provisions of Section 6 of this agreement.

Page 1 of 3

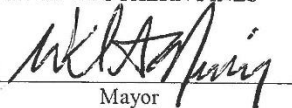
5. No portion of the land represented in yellow on the map included in this agreement as Exhibit A is subject to annexation by the Village during the duration of this agreement, except under the provisions of Section 6 of this agreement.
6. Neither party may annex any area designated to be annexed by the other party unless it has first provided written notice to the other, at least sixty (60) days before the Public Hearing required to adopt any ordinance for such annexation, unless the party entitled to receive notice has executed a written waiver eliminating the need for such a notice or reducing the time for such notice.
7. This agreement between the Town and the Village is effective upon adoption by both parties.
8. Either party may terminate this agreement if the other party repeals their ordinance for Highway Corridor Overlay standards for that portion of NC Highway 22 over which it has jurisdiction.
9. This agreement may not be amended or terminated without express written consent of both the Town and the Village. Any action to amend or terminate this agreement shall include an instrument of the governing boards, executed by the Mayors, or designees, with evidence of the approval of said instrument recorded in the official minutes of record for that respective governing board.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be duly executed by each of their properly officials on the day and year first above written and this agreement is executed in duplicate.

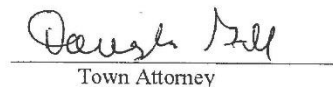
ATTEST:


Town Clerk

TOWN OF SOUTHERN PINES

By: 
Mayor

APPROVED AS TO FORM:


Town Attorney



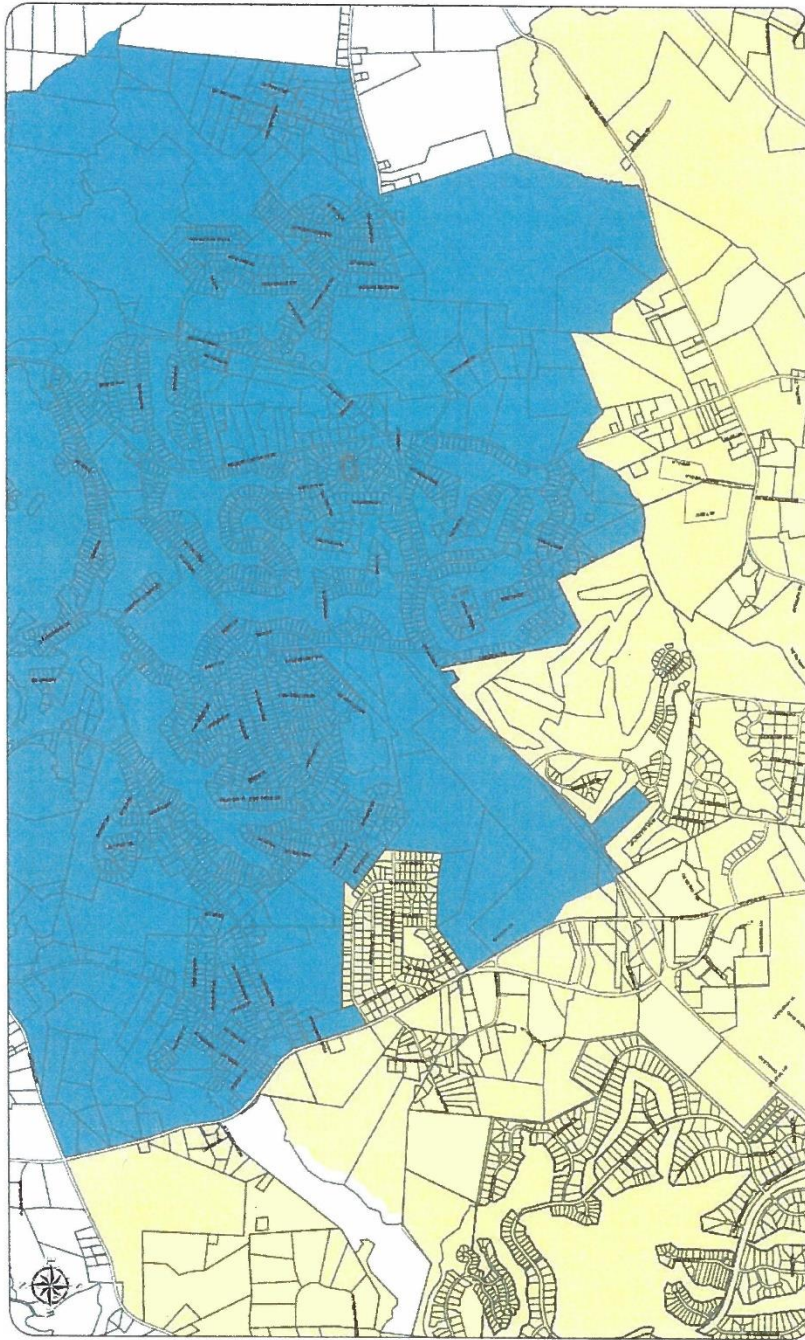
Page 2 of 3

ATTEST:

VILLAGE OF WHISPERING PINES

Lee M. Christoph
Village Clerk

By: Michael J. [Signature]
Mayor



**Exhibit A: Annexation Agreement between
the Town of Southern Pines and the Village of Whispering Pines**

Legend
 Areas annexed or to be annexed by the Town of Southern Pines
 Areas annexed or to be annexed by the Village of Whispering Pines

TOSP WP AX Agreement

**MOORE COUNTY
STATE OF NORTH CAROLINA**

I swear this is a true and accurate copy of an Ordinance to Extend The Corporate Limits of The Town of Southern Pines, North Carolina (In November 1997, the Town Council adopted an annexation agreement with the Village of Whispering Pines to insure the orderly annexation of properties around the common boundaries of the two municipalities. The 1997 annexation agreement, per statutory maximum, included a duration of twenty years. The 1997 annexation agreement expired in November 2017. In February 2018, the two municipalities entered into a 6-month annexation agreement under the same terms as the 1997 annexation agreement. Staff from both municipalities have worked together on a new 20-year annexation agreement. Attached to this memorandum are a draft agreement and an updated map depicting the areas included in the agreement.) Adopted on August 8, 2018.


Peggy K. Smith, Town Clerk

8/9/18
Date

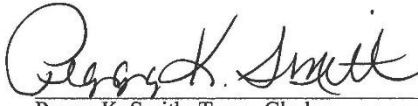
CERTIFICATE OF SUFFICIENCY

To the Town Council of the Town of Southern Pines, North Carolina.

I, Peggy K. Smith, 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 G.S. 160A-31, as amended. **Annexation Agreement between the Town of Southern Pines and the Village of Whispering Pines**

In witness whereof, I have hereunto set my hand and affixed the seal of the Town of Southern Pines, this 8th day of August, 2018.

(SEAL)


Peggy K. Smith, Town Clerk

**Annexation Agreement between the Town of
Southern Pines and the Village of Whispering Pines**

From: [Linda Christopher](#)
To: [Cindy Williams](#)
Cc: [BJ Grieve](#)
Subject: RE: AX-08-21 Blue Farm lots
Date: Wednesday, December 15, 2021 4:05:08 PM

Good afternoon Cindy and BJ,

This email correspondence is sufficient notice of the public hearing on the Petition for Voluntary Annexation of five parcels located within the Whispering Pines' ETJ.

I am actually happy to see this email, so I can officially be done with all this. I told them months ago, they would need to request annexation into SP. They just choose to not listen to me.

From: Cindy Williams <CWilliams@southernpines.net>
Sent: Wednesday, December 15, 2021 3:44 PM
To: Linda Christopher <clerk@vwpsc.org>
Cc: BJ Grieve <BJGrieve@southernpines.net>
Subject: AX-08-21 Blue Farm lots

Good afternoon Linda,

A public hearing regarding the attached Petition to annex five parcels that are currently in the Village of Whispering Pines' ETJ is tentatively scheduled for February 8, 2022.

Pursuant to the annexation agreement between the Town of Southern Pines and the Village of Whispering Pines, at least 60 days' notice of the public hearing is required *unless the party entitled to receive notice has executed a written waiver eliminating the need for such notice or reducing the time for such notice.*

If the Village of Whispering Pines is willing to accept this correspondence as sufficient notice of the public hearing on the attached Petition for Voluntary Annexation, please advise in writing.

Sincerely,

Cindy Williams, CZO
Planning Department
Town of Southern Pines
(910) 692-4003

CERTIFICATE OF SUFFICIENCY
AX-08-21: Blue Farm Section Three

To the Town Council of the Town of Southern Pines, North Carolina;

I, Elizabeth Robertson, Deputy Town Clerk, do hereby certify that I have investigated the attached petition and hereby make the following findings:

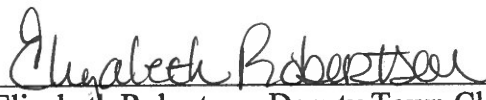
The petition contains an adequate property description of the area proposed for annexation, which is identified as follows:

- PIN: 857400849276 (PARID: 00041291)
- PIN: 857400940142 (PARID: 00041293)
- PIN: 857404931919 (PARID: 00041294)
- PIN: 857404932803 (PARID: 00041296)
- PIN: 857404932694 (PARID: 00041297)

The area described in the petition is contiguous to the Town of Southern Pines primary corporate limits, as defined by N.C.G.S. 160A-31.

The petition is signed by and includes addresses of all owners of real property lying in the area described herein. Per the Moore County Register of Deeds, the property owner is listed as Benjamin Stout Real Estate Services, Inc.

In witness whereof, I have hereunto set my hand and affixed the seal of the Town of Southern Pines, North Carolina, this 20th day of December, 2021.


Elizabeth Robertson, Deputy Town Clerk



**RESOLUTION SETTING DATE OF PUBLIC HEARING
FOR ANNEXATION APPLICATION AX-08-21; Blue Farm Section Three**

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

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

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

NOW, THEREFORE BE IT RESOLVED by the Town Council of the Town of Southern Pines, North Carolina:

Section 1. That a public hearing on the question of annexation of the area described herein will be held at the Douglass Community Center at 6:00 pm on February 8, 2022.

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

Property Owners/Applicants:

Benjamin Stout Real Estate Services, Inc.
P.O. Box 53798
Fayetteville, NC 28305

Property Identification Number (PIN) and Parcel Identification:

PIN: 857400849276; PARID: 00041291
PIN: 857400940142; PARID: 00041293
PIN: 857404931919; PARID: 00041294
PIN: 857404932803; PARID: 00041296
PIN: 857404932694; PARID: 00041297

Size of Property:

Total Current Combined Acreage: 4.10 acres

Meets & Bounds Description:

Lying in McNeils Township, Moore County, North Carolina, this subject tract being bounded on the northeast by Lots 1, 2, 3, 4 and 5, "Blue Farm, Section Three" as described and recorded Plat Cabinet 4, Page 319, Moore County Registry; bounded on the southwest by the tract as conveyed to Charles Leon Hargrove, as described and recorded in Deed Book 1526, Page 328, Moore County Registry; bounded on the southwest by the northeast right-of-way margin NC Highway 22, a 60 foot public right-of-way; bounded on the northwest by the southeast right-of-way margin of Sullivan Drive, a 60 foot public right-of-way, and being more particularly described as follows:

COMMENCING from the northernmost corner of Lot 10, "Blue Farm, Section Three" as described and recorded in Plat Cabinet 4, Page 319, Moore County Registry, said corner of Lot 10 also being the TRUE POINT AND PLACE OF BEGINNING:

THENCE as and with the southwest boundary line of Lots 1,2,3,4 and 5 "Blue Farm, Section Three" (Plat Cabinet 4, Page 319), South 26 degrees 41 minutes 00 seconds East for a distance of 880.77 feet to the southernmost corner of Lot 5;

THENCE as and with the southeast boundary line of Lot 6, South 63 degrees 19 minutes 00 seconds West for a distance of 205.80 feet to a point, the southern most corner of Lot 6, located in northeastern right-of-way margin of NC Highway 22, a 60-foot public right-of-way;

THENCE as and with the southwest boundary line of Lot 6, North 27 degrees 17 minutes 00 seconds West for a distance of 200.05 feet to a point;

THENCE as and with the southwest boundary line of Lot 7, North 26 degrees 36 minutes 00 seconds West for a distance of 210.00 feet to a point;

THENCE as and with the southwest boundary line of Lot 8, North 26 degrees 01 minutes 00 seconds West for a distance of 155.00 feet to a point;

THENCE as and with the southwest boundary line of Lot 9, North 24 degrees 25 minutes 00 seconds West for a distance of 155.03 feet to a point;

THENCE as and with the southwest boundary line of Lot 10, North 23 degrees 28 minutes 00 seconds West for a distance of 124.99 feet to a point;
THENCE a curve to the right having a radius of 20.00 feet, an arc length of 28.36 feet and a chord bearing and distance of North 17 degrees 09 minutes 30 seconds East for a distance of 26.04 feet to a point located in the southeast right-of-way margin of Sullivan Drive (S.R. 1911);
THENCE as and with said right-of-way margin of Sullivan Drive, North 57 degrees 47 minutes 00 seconds East for a distance of 178.14 feet to the northernmost corner of Lot 10, said point also being the TRUE POINT AND PLACE OF BEGINNING.

A map of the area herein described is provided with this Ordinance as Attachment A.

Section 3. Notice of said public hearing shall be published in The Pilot, a newspaper having general circulation in the Town of Southern Pines, at least ten (10) days prior to the date of said public hearing.

Adopted this 11th day of January, 2022.

ATTEST:

TOWN OF SOUTHERN PINES

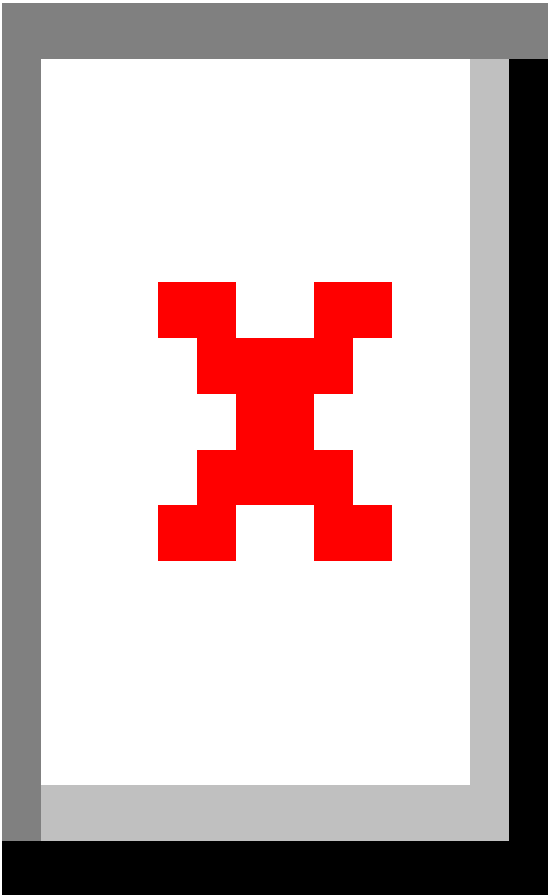
Elizabeth Robertson, Deputy Town Clerk

Carol R. Haney, Mayor

I certify that this resolution was adopted by the Town Council of the Town of Southern Pines at its meeting of January 11, 2022 as shown in the minutes of the Town Council for that date.

Elizabeth Robertson, Deputy Town Clerk

ATTACHMENT “A”





MEMORANDUM

DATE: 15 December 2021
TO: Reagan Parsons, Town Manager
CC: Jessica Roth, Beth Robertson
FROM: Amanda Brown, Library Director



RE: Library Advisory Board Appointments

Library Advisory Board member Jeff Hutchinson has a term that expires 12/31/2021. He has served the maximum two full terms. I hope that the Council will recognize his contributions to the Library and the Town and thank him for his years of service. He has been a great advocate for the library.

Carrie Dugas has submitted her application to serve on the Board. She resides in Southern Pines and is the Director for Independent Living at Penick Village.

On December 13, the Library Advisory Board voted to recommend the following applicants to the Council for their consideration.

Carrie Dugas

1/1/2022 to 12/31/2024



**DATA SHEET FOR APPOINTMENT TO
COMMITTEES, COMMISSIONS
AND BOARDS**

Received
NOV - 8 2021
Administration
Town of Southern Pines

COMMITTEE, COMMISSION, OR BOARD IN WHICH INTERESTED: Southern Pines Public Library Advisory Board

NAME: Carrie Dugas TELEPHONE: 7048914986

ADDRESS: 165 Pine Cone Way Southern Pines NC 28387 EMAIL: cbdugas88@icloud.com

EDUCATIONAL BACKGROUND

Masters of Health Policy & Administration- Penn State University Anticipated Graduation Date December 2021

Bachelor of Science in Recreational Therapy

EMPLOYMENT

JOB TITLE: Director of Independent Living

EMPLOYER: Penick Village

CIVIC AND PROFESSIONAL ACTIVITIES: The Honor Society Phi Kappa Phi Member

PAST MEMBERSHIP IN ORGANIZATIONS AND OFFICES HELD: N/A

ANY ADDITIONAL INFORMATION AND COMMENTS: _____

I have been living in Southern Pines for seven years now, and I love this community.

I would be honored to give of my time and talents to help with the betterment of our community.

DATE: _____ SIGNATURE: _____

PLEASE RETURN TO: Administration
125 SE Broad Street
Southern Pines, NC 28387

admin@southernpines.net

Your application will remain on file 12 months from the date of completion



Town of
Southern Pines
Police Department

Mailing
P.O. Box 330
Southern Pines, NC 28388

Physical Location
450 W. Pennsylvania Ave.
Southern Pines, NC 28387

Administration: (910) 692-2732
Communications Center: (910) 692-7031
Patrol Division: (910) 693-4101
Investigation Division: (910) 693-1481
Crime Tips: (910) 693-4110

Email: PD@southernpines.net
www.southernpines.net/Police

To: Town Council

From: Nick Polidori
Chief of Police

Date: November 15, 2021

Re: Request for Budget Amendment – League of Municipalities Insurance Payment

The Southern Pines Police Department received an insurance payment from the League of Municipalities for a total loss of police vehicle #8911 in the amount of \$43,250 (check dated 11/02/21). This check was forwarded to the Finance Department to be deposited into the General Fund Account #10-335-0000.

At this time, I am respectfully requesting that this insurance payment, in amount of \$43,250, be transferred from the General Fund Account #10-335-0000, to the following Police Department line items in specific amounts:

- 10-511-7402 (Capital-Motor Vehicles) \$31, 300 – replacement vehicle cost with associated expenditures for upfitting, equipment installation, DMV fees.
- 10-511-3300 (Department Supplies) \$11,950- the balance of this insurance payment will be used to fund VIPER Mobile Radio replacements and VIPER re-programming costs to be TDMA compliant by 2025.

Thank you for your consideration of this request.

Xc: Town Manager
Finance Director
Director of Administrative Services
File Budget 2021/2022

**TOWN OF SOUTHERN PINES ORDINANCE #1955
AMENDING THE 2021/2022 FISCAL YEAR BUDGET**

BE IT ORDAINED AND ESTABLISHED by the Town Council of the Town of Southern Pines in regular session assembled this 11th day of January, 2022 that the Operating Budget for the Fiscal Year 2021/2022 be and hereby is amended as follows:

<u>DEPARTMENT</u>	<u>LINE ITEM</u>	<u>CODE</u>	<u>INCREASE</u>	<u>DECREASE</u>
Police	Miscellaneous Revenue	10-335-0000	\$43,250.00	
Police	Capital – Motor Vehicles	10-511-7402	\$31,300.00	
Police	Department Supplies	10-511-3300	\$11,950.00	

I certify that this ordinance was adopted by the Town Council of the Town of Southern Pines at its meeting of January 11, 2022 as shown in the minutes of the Town Council for that date.

Elizabeth Robertson, Deputy Town Clerk

**TOWN OF SOUTHERN PINES ORDINANCE #1956
AMENDING THE 2021/2022 FISCAL YEAR BUDGET**

BE IT ORDAINED AND ESTABLISHED by the Town Council of the Town of Southern Pines in regular session assembled this 11th day of January, 2022 that the Operating Budget for the Fiscal Year 2021/2022 be and hereby is amended as follows:

<u>DEPARTMENT</u>	<u>LINE ITEM</u>	<u>CODE</u>	<u>INCREASE</u>	<u>DECREASE</u>
General Fund	Fire Donations	10-362-0000	\$2,500.00	
Fire	Supplies	10-530-3300	\$2,500.00	

I certify that this ordinance was adopted by the Town Council of the Town of Southern Pines at its meeting of January 11, 2022 as shown in the minutes of the Town Council for that date.

Elizabeth Robertson, Deputy Town Clerk

**TOWN OF SOUTHERN PINES ORDINANCE #1957
AMENDING THE 2021/2022 FISCAL YEAR BUDGET
LIBRARY DONATIONS**

BE IT ORDAINED AND ESTABLISHED by the Town Council of the Town of Southern Pines in regular session assembled this 11th day of January, 2022 that the Operating Budget for the Fiscal Year 2021/2022 be and hereby is amended as follows:

<u>DEPARTMENT</u>	<u>LINE ITEM</u>	<u>CODE</u>	<u>INCREASE</u>	<u>DECREASE</u>
General Fund	Library Donations	10-365-0000	\$8,060.00	
Library	Departmental Supplies	10-630-3300	\$8,060.00	

I certify that this ordinance was adopted by the Town Council of the Town of Southern Pines at its meeting of January 11, 2022 as shown in the minutes of the Town Council for that date.

Elizabeth Robertson, Deputy Town Clerk

**AN ORDINANCE
AMENDING THE 2021/2022 FISCAL YEAR BUDGET**

BE IT ORDAINED AND ESTABLISHED by the Town Council of the Town of Southern Pines in regular session assembled this 11th day of January, 2022 that the Operating Budget for the Fiscal Year 2021/2022 be and hereby is amended as follows:

<u>DEPARTMENT</u>	<u>LINE ITEM</u>	<u>CODE</u>	<u>INCREASE</u>	<u>DECREASE</u>
Legislation	Contractual Services	10-410-4500	\$19,528.00	
General Fund	Fund Balance Appropriations	10-397-1000	\$19,528.00	

I certify that this ordinance was adopted by the Town Council of the Town of Southern Pines at its meeting of January 11, 2022 as shown in the minutes of the Town Council for that date.

Elizabeth Robertson, Deputy Town Clerk

MEMORANDUM

To: Reagan Parsons, Town Manager
From: Jessica Roth, Assistant Town Manager
Re: Membership Qualifications for Appointed Boards
Date: December 29, 2021

Recommendation

Staff recommends that the Town Council consider eliminating term limits for appointees serving on the Appearance Commission and Library Advisory Board as well as other restrictive membership qualifications.

Appearance Commission

[§ 33.04 of the Code of Ordinances](#) prohibits Appearance Commission members from serving more than two successive full terms, each term being three years.

The term limits impact two current Commission members, BIRTHA Shaw and Terry Lenahan. Ms. Shaw's second full term expired in late 2020, but she remains a very active volunteer for the Commission, involved with multiple sub committees. Eliminating term limits would allow Council to re-appoint Ms. Shaw to the Commission. Further, she could resume a leadership role should she desire (she previously chaired the Commission).

Ms. Lenahan has served on the Commission since 2014 and her second full term will expire in October 2022. She has expressed a desire and commitment to continue serving on the Commission past this date. Ms. Lenahan has served as the Commission's Chair since January 2020.

Four of the thirteen total seats on the Commission are currently vacant. Despite actively recruiting in the community, the Commission has operated with multiple vacant seats for a number of years.

Further, this is an active Commission which meets monthly and is directly involved in carrying out numerous projects in Southern Pines, including the downtown flower pots, the Sprucing Up Southern Pines awards program, community clean ups, Arbor Day celebration, streetscaping projects, among others. It is important that the Commission retain volunteers who are willing to serve and have the time that is needed.

[NCGS § 160D-304](#) governs the composition of a municipal Appearance Commission. NCGS does not mandate term limits, simply stating that a term may not be longer than four years.

Library Advisory Board

Membership qualifications for the Library Advisory Board are detailed in a number of historic and separate ordinances and resolutions, some dating as far back as 1958. Staff must interpret these various documents, which creates confusion. Further, they are not codified in the Code of Ordinances, consistent with other Town Boards.



Staff recommends preparing an ordinance to outline the Board's membership qualifications, responsibilities, and similar for inclusion in Chapter 33 of the Code of Ordinances. During this update, staff also recommends revising membership qualifications in order to improve retention and recruitment of board members, such as the following:

- Remove term limits so that members are not automatically removed, despite a desire to continue serving. The Town has lost many valuable volunteers due to the term limits, including Jeff Hutchinson whose term expired at the end of 2021.
- Remove mandatory requirement for membership in the Friends of the Library. This requires a monetary contribution and should not be mandated for volunteer board members.
- Change the mandatory requirement that one member be a resident of the ETJ and specify instead that "one of the members *may* be a resident in the Town of Southern Pines extraterritorial jurisdiction (ETJ)."
- Add clarity to ambiguous qualifications such as members shall be "active library patrons." It is unclear how one defines "active" in this case.
- Officers (chair and vice-chair/secretary) are selected by the Board members. Currently, officers are prohibited from serving more than one successive term. These roles have added responsibilities and not every member is suited or interested in having a leadership role on the board, so those who are, should be allowed to serve. There is also benefit in having continuity in leadership.

[NCGS § 153A-265](#) authorizes municipalities and counties to appoint a library board of trustees/advisory board. This statute does not mandate term limits, nor does it mandate the length of the terms. Terms on the Town's library board are three years.

Other Appointed Boards

Term lengths and limits are handled in the following ways for other Town boards:

- No term limits
 - Bicycle & Pedestrian Advisory Committee (3-year terms)
- Two full terms with no eligibility for re-appointment
 - Appearance Commission (3-year terms)
 - Board of Adjustments (3-year terms)
 - Library Advisory Board (3-year terms)
- Two full terms with eligibility for re-appointment after a lapse of one year
 - Historic District Commission (4-year terms)
 - Planning Board (3-year terms)



MEMORANDUM

To: Reagan Parsons, Town Manager
Jessica Roth, Assistant Town Manager

From: Bruce Rosenberger, Director of Administrative Services

Date: December 29, 2021

Subject: Continued Commitment to Voluntary FFCRA Extension

In January of 2021 the Town extended the FFCRA program on a voluntary basis. As you know, the program allows employees who are exposed to, confirmed to have, or are affected by school closures due to COVID to receive regular pay if they are required to stay out of work due to quarantine or lack of child care.

This program was extended once with Council approval through June 30, 2021, and then Council “re-committed their support for continuation of the FFCRA through December 31, 2021.”

With the expiration of the re-commitment upon us and the surge of the Omicron variant, I believe it would be prudent to have the Council once again publicly state their further commitment to the extension of this program through at least March 31, 2022. As in the past cases, this is based on the same philosophies as the original extension – it is not equitable for one employee to receive these payments and another employee not, only because of the timing of when they were affected. As was the case with the last commitment, we have only had a small few employees who have needed to take advantage of this program in the last few months, but the recent rise in cases locally and across the country does mean we can expect to see a rise among our employee population as well.

As a reminder, this program is a continuation of the FFCRA and means that employees who have already exhausted or partially exhausted their eligible emergency paid sick leave will NOT receive any additional pay under the program. Anyone who has exhausted their FFCRA leave will be required to utilize any accrued time off they have available.

Please advise if further information is needed or adjustments to this recommendation are required.