



**TOWN OF HARRISBURG, NORTH CAROLINA
HARRISBURG TOWN HALL
PLANNING AND ZONING BOARD MEETING**

**July 20, 2021
6:00 PM**

AGENDA

1. CALL TO ORDER

- A. The Town Hall Council Chambers will be open to the public at our normal capacity level. **Masks are required to be worn by the public during the meeting.**

The public may also join the meeting via the Zoom platform at the following link:

<https://us02web.zoom.us/j/86131346552?pwd=OTlWSyszVGZpRTRtYkNnTVEvY3d4QT09>

Webinar ID: 861 3134 6552

Passcode: 036981

Or join by phone:

312.626.6799

301.715.8592

- B. AGENDA ADOPTION

- C. SPECIAL PRESENTATIONS

- D. PUBLIC COMMENT - Anyone wishing to address the Board may do so during the Public Comment section. Please state your name and address for the record, be courteous and do not repeat what has already been said. Please keep your comments about the subject and not personal in nature.

2. CONSENT AGENDA

- A. Consider the meeting minutes of June 15, 2021 Planning and Zoning Board meeting.

3. OLD BUSINESS

- A. Election of Officers for Planning and Zoning Board and the Board of Adjustments for the current annual term ending on June 30, 2022

4. NEW BUSINESS

- A. H2020-02 (R) – Conditional Rezoning and Zoning Map Amendment of Properties Off of Blackwelder Rd.

- B. H2020-07 (R) – Conditional Rezoning and Zoning Map Amendment for McKinley Residential Subdivision off of Lower Rocky River Rd.
- C. H2021-05 (R) – Conditional Rezoning and Zoning Map Amendment of Properties at the Corner of Rocky River Rd and Hickory Ridge, Shoppes at Hickory Ridge (Blume Corner).
- D. H2021-1-(S) Courtyards on Robinson Church Preliminary Plat.

5. **STAFF UPDATES/INFORMATION**

6. **ADJOURNMENT**

Town of Harrisburg's Vision Statement

Harrisburg will be the best small town in North Carolina based on low density housing, excellent economic opportunities, a safe living environment, and efficient and effective municipal services. Amenities such as excellent recreational programs, adequate open space, attractive shopping opportunities, a diversity of restaurants, and a connected system of roadways, sidewalks, greenways, and bicycle lanes will continue to enhance the quality of life of the Town. These services and amenities will be provided while retaining reasonable tax rates and debt levels.



TOWN OF HARRISBURG

Agenda Item Details

Title:

Consider the meeting minutes of June 15, 2021 Planning and Zoning Board meeting.

Presenting Personnel:

Suggested Motion or Action:

Motion to approve the meeting minutes of June 15, 2021 Planning and Zoning Board meeting.

Description/Background:

Recommendation:

Fiscal Impact:

Attachments:

1. PZ MINS JUNE 15 21

**TOWN OF HARRISBURG, NORTH CAROLINA
PLANNING & ZONING ADVISORY BOARD MEETING
TUESDAY, JUNE 15, 2021**

MINUTES

1.

CALL TO ORDER

Andy Rathke called the meeting to order.

PRESENT: Andy Rathke, Jacob Carpenter, Rodney Garner, Thelma Thorne-Chapman, Kevin Schaffner, John Overcash, Lloyd Quay

A.

AGENDA ADOPTION

MOTION

Rodney Garner made a motion to adopt the agenda as presented. Second was made by Thelma Thorne-Chapman. **The motion passed 7-0.**

B.

SPECIAL PRESENTATIONS

C.

PUBLIC COMMENT

2.

CONSENT AGENDA

A. Planning Board meeting minutes of May 18, 2021, Planning and Zoning Board meeting.

MOTION

Lloyd Quay made a motion to approve the Consent Agenda. Second was made by Kevin Schaffner. **The motion passed 7-0.**

3.

OLD BUSINESS

4.

NEW BUSINESS

A.

Public Hearing to Consider the adoption of the Harrisburg Unified Development Ordinance (UDO)

Town Council approved the contract with Kendig Keast Collaborative (KKC) on March 09, 2020, to kick-off the process to review and update the Harrisburg Unified Development Ordinance (UDO). In 2018, the Harrisburg Town Council adopted the Harrisburg Area Land Use Plan (HALUP), developed in partnership with Cabarrus County. The Harrisburg Area Land Use Plan (HALUP) provides a general direction for future growth and development in and around Harrisburg. The policy document conveys a future vision and the steps to achieve that vision and the Unified Development Ordinance (UDO) is a tool to help the Town achieve such vision. One of the recommendations included in the HALUP was to update the Town's UDO to align with the recently adopted HALUP. The UDO updates also take into account the newly adopted state law Chapter 160D by the North Carolina General Assembly that governs the municipal land use regulations. The new UDO will be published in its native web format and the DRAFT is available for your review at <http://online.encodeplus.com/regs/harrisburg-nc/doc-viewer.aspx#secid-3457>. Attached is a PDF of the DRAFT UDO for your consideration as well. A summary of changes highlighting key areas of update is also

attached for your review. A representative from KKC will present the DRAFT UDO at the meeting. Town Council will hold their Public Hearing at the July 12th meeting and adoption action at their August 9th, 2021, meeting. The Planning and Zoning Staff recommends holding a Public Hearing and offering recommendations for adoption by the Town Council.

Public Comment:

Jim Merrifield- 122 Cedar Grove Circle, Davidson, NC. Speaking against, stating he has sent a list of 17 Commercial items to the Planning Director on concerns that he has and would like to be addressed before the new UDO is approved.

James Eskew- 8010 Wycombe Ct, Harrisburg, NC. Questioning the open space requirements for new development.

After some discussion about the project, they then took the following action:

MOTION:

John Overcash made a motion to recommend approval of the adoption of the Harrisburg Unified Development Ordinance (UDO) and send it on to the Town Council for their consideration with a second from Kevin Schaffner. **The motion passed 7-0.**

The following Consistency Statement was then proposed:

CONSISTENCY STATEMENT:

1. Based on the staff report, staff presentation and with the conditions proposed, this conditional rezoning request is consistent with the Harrisburg Area Land Use plan and with the conditions it is reasonable and in the public interest.

MOTION:

Kevin Schaffner made a motion to approve the proposed Consistency Statement with a second from Jacob Carpenter. **The motion passed 7-0.**

5.

STAFF UPDATES/INFORMATION

- Council approved appointment of Kevin for the Planning and Zoning and Board of Adjustment Board, his term will start at our July meeting.
- Thank you all for being apart of our UDO draft process, your comments and recommendations have truly helped us get to where we are now with this project.
- Thank you, Lloyd and John, for your many years of service on this board, tonight will be both of their last meetings. We wish you both nothing but the best and hope you continue to keep up with what is going on in Harrisburg.
- We will need to appoint a new Chair for the Board of Adjustment Board next meeting, keep in mind if you would like to do this.

6.

ADJOURNMENT

MOTION:

There being no further business, Andy Rathke made a motion to adjourn, with a second from Lloyd Quay. **The motion passed 7-0.**

Andy Rathke, Chairman

Carly Bedgood, Secretary



TOWN OF HARRISBURG

Agenda Item Details

Title:

Election of Officers for Planning and Zoning Board and the Board of Adjustments for the current annual term ending on June 30, 2022

Presenting Personnel:

Sushil Nepal, Planning & Economic Development Director

Suggested Motion or Action:

Motion to elect a Chair and Vice-Chair of the Planning and Zoning Board and the Board of Adjustment for the current annual term ending on June 30, 2022.

Description/Background:

The adopted by-laws of the Planning and Zoning Board and the Board of Adjustment call for appointment of Chair and Vice Chair annually. The Planning and Zoning Board members appointed by the Town Council also serve as the Town's Board of Adjustments members. We are asking the Board to appoint its officers to serve the annual term ending in June 30, 2022.

Below are the description for each positions, as described in the by-laws.

Planning and Zoning Board:

- **Chair:** The Chairman shall preside at all meetings of the Planning & Zoning Board. In order to address the Board, a member must be recognized by the Chairman. The Chairman is entitled to vote on all matters and shall be considered a member for all purposes, including the determination of whether a quorum is present. In addition to participating as a member, the Chairman shall have the following duties:

- I. To rule motions in or out of order, including any motion patently offered for obstruction or dilatory purposes;
- II. To determine whether a speaker has gone beyond reasonable standards of courtesy in his remarks and to entertain and rule on objections from other members on this ground;
- III. To call a brief recess at any time;
- IV. To adjourn in an emergency, and
- V. To appoint, as needed, special committees from among the members.

- **Vice-Chair:** A Board member who serves as Vice Chairman shall be entitled to vote on all matters and shall be considered a member for all purposes, including the determination of whether a quorum is present. In the Chairman's absence, the Vice Chairman shall preside, and when presiding, shall have the right to vote upon all questions

Board of Adjustment:

- The **Chairman** shall decide upon all points of order and procedure subject to these Rules unless directed otherwise by a majority of the Board in session at the time. The **Vice Chairman** shall serve as acting Chairman in the absence of the Chairman, and at such times, he shall have the same powers and duties as the Chairman. In the event of the absence of both the Chairman and the Vice Chairman from a Board of Adjustment meeting, the Regular members present may elect a temporary Chairman for that meeting and proceed with the order of the business. The Chairman, or any member acting as Chairman is authorized to administer oaths to witnesses (who may either swear or affirm) in any matter coming before the Board.

Recommendation:

Staff recommends the Board discuss the election of officers, seek nominations and elect Chair and Vice-Chair for each Board.

Fiscal Impact:

None.

Attachments:

None



TOWN OF HARRISBURG

Agenda Item Details

Title:

H2020-02 (R) – Conditional Rezoning and Zoning Map Amendment of Properties Off of Blackwelder Rd.

Presenting Personnel:

Sushil Nepal, Planning & Economic Development Director

Suggested Motion or Action:

If approved, the following motion is suggested:

To approve the conditional rezoning request from Low Density Residential (LDR) in the County to Conditional Residential Village (CZ-RV) as requested by the applicant for the related property in application H2021-02 (R).

If denied, the following motion is suggested:

To deny the conditional rezoning request from Low Density Residential (LDR) in the County to Conditional Residential Village (CZ-RV) as requested by the applicant for the related property in application H2021-02 (R).

Description/Background:

Southfork Ventures, on behalf of the the property owners of parcels 55184487900000 and 55183432930000 have submitted a request to rezone approximately 39.46 acres of land located off Blackwelder Rd situated between Roberta Rd and Lakeland Rd. The applicant proposes to develop 70 single-family detached residential dwellings, 75 foot wide lots. To achieve this, the applicant is requesting that the property be rezoned from County LDR (Low Density Residential) to CZ-RV (Conditional Zoning Residential Village). The proposed gross density of the site is 1.79 dwelling units per acre.

The property is in the County, applicant has also submitted a Petition requesting Annexation for the subject property which is contiguous to the current Town of Harrisburg corporate limits. A Town Council public hearing will be held to take action on the rezoning and annexation at the same time.

A staff report is attached for more information and a site plan is submitted for your consideration. As noted in the staff report, the rezoning request to Residential Village (RV) is not consistent with the recommendation in the HALUP for the Low Density Residential (LDR) areas, Staff is presenting this for Planning and Zoning Board's consideration without staff recommendation as requested by the applicant. If approved, staff will continue reviewing the site plan in accordance with our Unified Development Ordinance (UDO) during the subsequent Preliminary Plat and Construction Document (CDs) reviews.

Recommendation:

The rezoning request is not consistent with the Harrisburg Area Land Use Plan. Planning and Zoning Department staff is presenting this for Planning and Zoning Board's consideration without staff recommendation as requested by the applicant.

Fiscal Impact:

None.

Attachments:

1. H2020-02 R_Application for Conditional Rezoning
2. H2020-02 R_Site Map
3. H2020-02 R Blackwelder Rezoning Site Plan
4. H2020-02 R Staff Report
5. H2020-02 R_Neighborhood Meeting Summary
6. H2020-02 R_Sample Home Elevations
7. H2020-02 R_Public Open Space Payment Letter



APPLICATION FOR CONDITIONAL REZONING

Applications for a Conditional District must be accompanied by an application for a Zoning Map Amendment.

1. Please submit fifteen (15) copies of a complete development plan in conformance with Appendix B, Section B-4 of the UDO (all conditional rezoning applications shall include a site specific development plan which, if approved, shall be binding on the property in question). If approved, a zoning site plan review and approval will be required to receive a zoning compliance permit. For specific requirements, please see the form entitled "Site Plan Requirements".
2. Please list the specific permitted land use(s) that you are proposing. Land use(s) shall be chosen from Article 4.6 in the Harrisburg UDO titled "Use Regulations" and shall correspond to the Zoning District requested.

Single Family Residential

3. Please list any specific conditions that you would be willing to impose as part of this application (example: no outside storage permitted on-site, increased buffer width, etc.).

Min. Lot width 75FT, Min. Lot size 9,375 SQFT, Lot Setbacks: 25'(front), 25'(rear), 25'(corner), 10'(side)



Owner Information

It is understood by all parties hereto that while this application will be carefully considered and reviewed, the burden of providing its need and providing all required evidence rests with the below named petitioner. In addition, it is understood and acknowledged that if the property is rezoned as requested, the property involved in this request will be perpetually bound by the use(s) authorized and subject to such conditions as imposed, unless subsequently changed or amended through the rezoning process. It is further understood and acknowledged that it is the responsibility of the petitioner to file the development plan in the Cabarrus County Register of Deeds Office as a deed restriction upon the subject property.

If, after two years from the date of approval substantial construction has not begun, the property in question may revert to its prior zoning designation after a public hearing is held in compliance with the required procedure for a zoning map amendment.

I do hereby certify that all information which I have provided for this application is, to the best of my/our knowledge, correct.

Property Owner	<u>Jenoal G Blackwelder</u>
	<u>(TM#5518448790 & TM#5518343293 partial owner)</u>
Address	<u>5161 Blackwelder Rd.</u>
	<u>Concord, NC 28027</u>
Phone	<u></u>
Fax	<u></u>
Signature	<u>✓ Jenoal G. Blackwelder</u>

NOTE: If multiple parcels are involved in a request, property owners must sign an application identifying the individual parcel(s) represented. Each parcel included in the request must be accounted for in the application process for the application to be considered complete.

OFFICIAL USE ONLY:

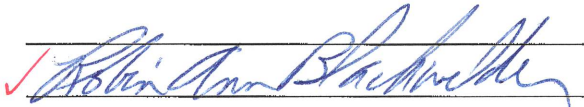
Petition Number: _____
 Date Filed: _____
 Received By: _____

**Owner Information**

It is understood by all parties hereto that while this application will be carefully considered and reviewed, the burden of providing its need and providing all required evidence rests with the below named petitioner. In addition, it is understood and acknowledged that if the property is rezoned as requested, the property involved in this request will be perpetually bound by the use(s) authorized and subject to such conditions as imposed, unless subsequently changed or amended through the rezoning process. It is further understood and acknowledged that it is the responsibility of the petitioner to file the development plan in the Cabarrus County Register of Deeds Office as a deed restriction upon the subject property.

If, after two years from the date of approval substantial construction has not begun, the property in question may revert to its prior zoning designation after a public hearing is held in compliance with the required procedure for a zoning map amendment.

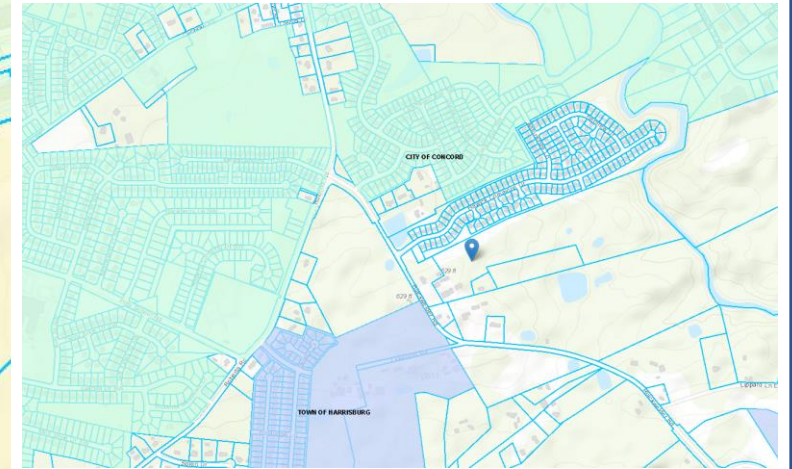
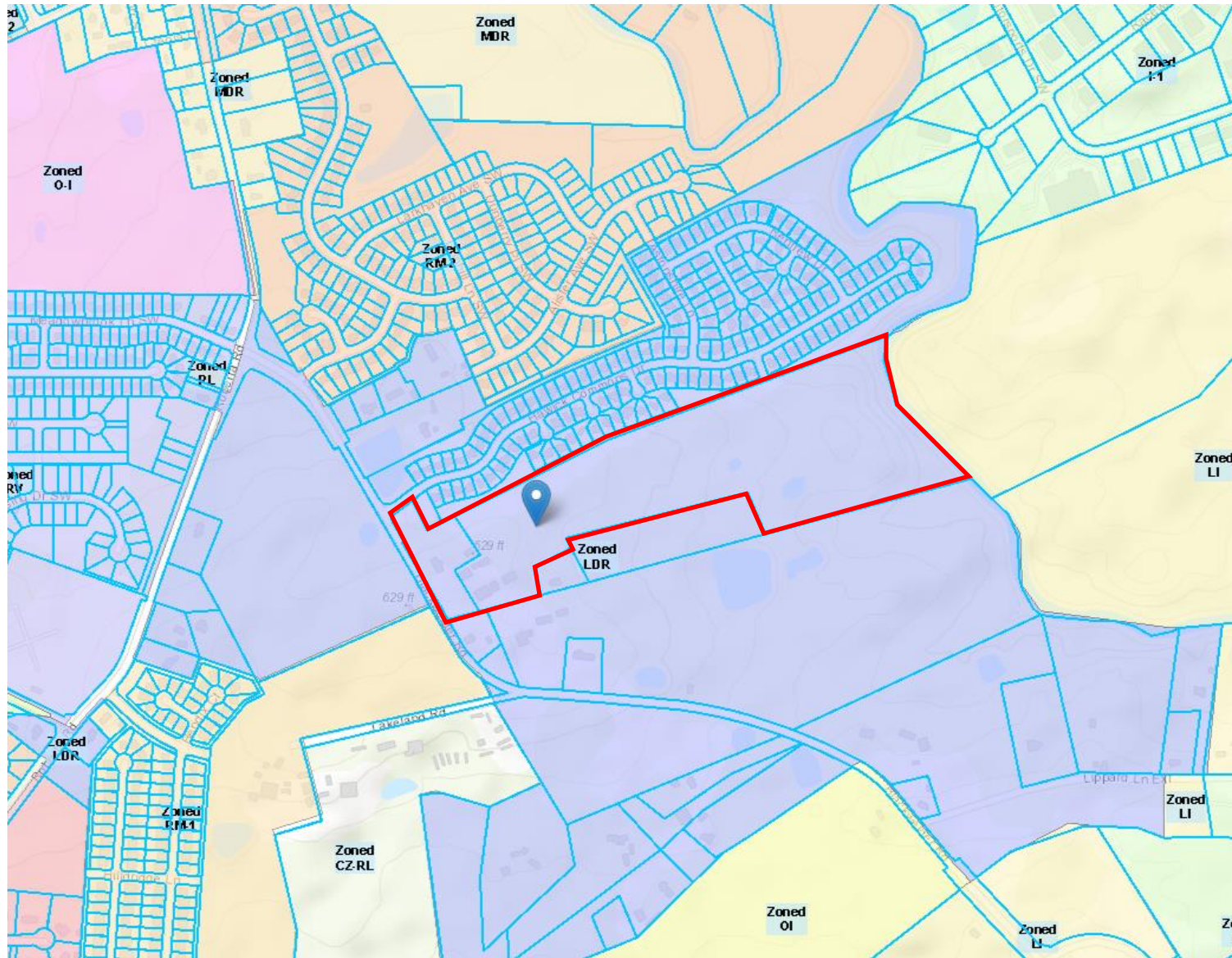
I do hereby certify that all information which I have provided for this application is, to the best of my/our knowledge, correct.

Property Owner	<u>Robin Ann Blackwelder</u> <u>(TM#5518440106 & TM#5518343293 partial owner)</u>
Address	<u>5127 Blackwelder Rd.</u> <u>Concord, NC 28027</u>
Phone	<u></u>
Fax	<u></u>
Signature	<u></u>

NOTE: If multiple parcels are involved in a request, property owners must sign an application identifying the individual parcel(s) represented. Each parcel included in the request must be accounted for in the application process for the application to be considered complete.

OFFICIAL USE ONLY:

Petition Number: _____
Date Filed: _____
Received By: _____



H2020-02(R) Rezoning and Annexation Request

Parcel Identification Number:
5518-44-8790, 5518-34-3293

Applicant: Southfork Ventures, LLC
Current Zoning: Low Density Residential (LDR), County
Requested Rezoning: Conditional Residential Village (CZ-
 RV)

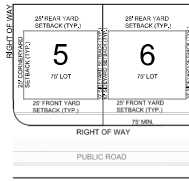
Map Created: July 2021



DEVELOPER:	SOUTHFORK VENTURES, LLC 3172 RIVERGRASS LANE YORK, SC 29745 PHONE: (704) 200-4273
LAND OWNER:	JENOL G & ROBIN ANNE BLACKWELDER 5127 BLACKWELDER ROAD CONCORD, NC 28027
TAX PARCEL NO.:	02-040-0006.15, 02-040-0006.20
BOOK & PAGE:	DB 8890 DP 0159
SITE ACREAGE:	39.46+ ACRES (TOTAL SITE) <u>0.29+ ACRES (LESS TOTAL R/W)</u> <u>39.17+ ACRES (NET)</u>
CURRENT ZONING:	LDR (LOW DENSITY RESIDENTIAL)
PROPOSED ZONING:	RV-CZ: RESIDENTIAL VILLAGE CONDITIONAL USE DISTRICT
LAND USE:	EXISTING: FARMLAND (VACANT) PROPOSED: SINGLE FAMILY RESIDENTIAL
BUFFER YARD:	REQUIRED: TYPE "A" (8') REQUIRED: TYPE "B" (15')

Curve Table					
Curve #	Length	Radius	Chord	Bearing	Delta
C1	43.61	30.00	39.87	N127°16'E	83°17'25"

Line Table			
Line #	Length	Direction	
L1	177.88	S25°21'30"E	
L2	89.89	N64°39'25"E	
L3	74.31	N64°37'47"E	
L4	49.41	N70°53'30"E	
L5	48.72	S38°45'59"W	
L6	48.82	S23°38'20"E	
L7	76.71	S64°45'45"E	
L8	82.68	S91°19'33"E	
L9	23.83	S25°53'30"E	
L10	145.62	S18°03'46"E	
L11	170.83	S50°35'33"E	
L12	152.95	S39°24'44"E	
L13	218.99	S41°20'03"E	
L14	40.03	S75°57°54"W	
L15	59.68	S27°30'33"E	
L16	54.68	S27°32'17"E	
L17	90.03	S15°52'23"E	
L18	60.10	S14°02'07"E	
L19	38.53	S75°56'14"W	
L20	31.28	S78°06'14"W	
L21	30.04	N64°36'22"E	

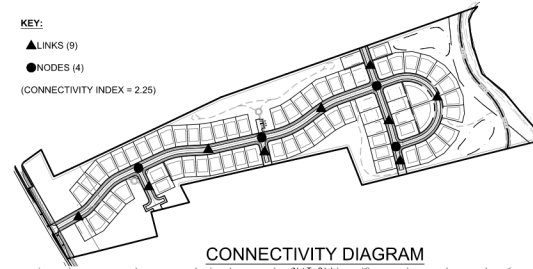


TYPICAL LOT SETBACK

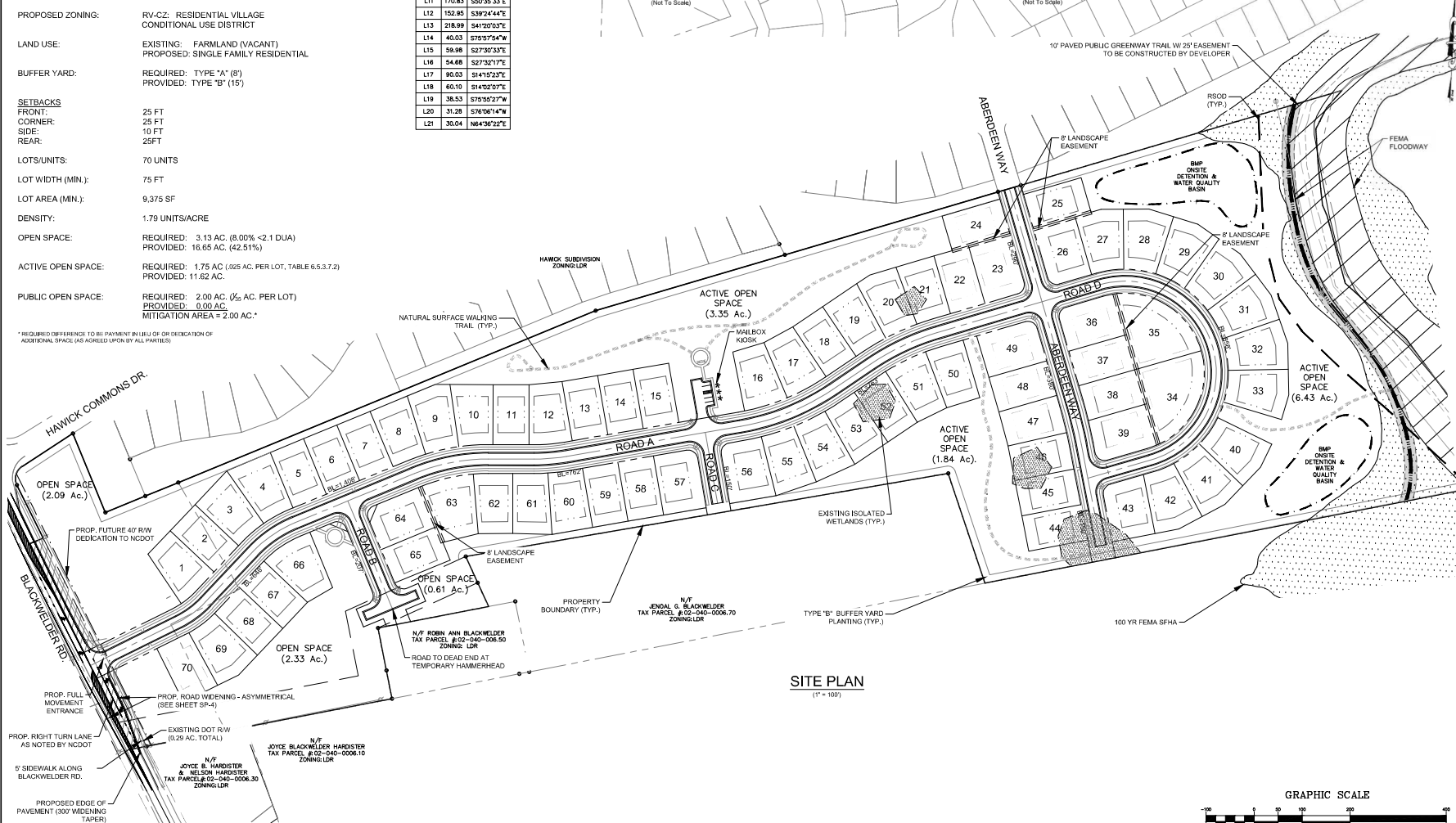
KEY:

- ▲ LINKS (9)
- NODES (4)

(CONNECTIVITY INDEX = 2.25)



VICINITY MAP - N.T.S.



SITE PLAN

GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.

DATE	ISSUED FOR	REV
12/16/19	Initial Submittal	0
03/19/20	Per Town of Harrisburg Comments	1
04/23/20	Per NCDOT Comments	2
06/23/01	Per NCDOT Comments	3
11/25/20	Per Town of Harrisburg Comments	4
04/27/21	Per Town of Harrisburg Comments	5
06/28/21	Per Town of Harrisburg Comments	6



Engineer:



R. Joe Harris & Associates, Inc.
Engineering • Land Surveying • Planning
Management

www.rjoe Harris.com

This drawing shall not be used for construction purposes until the seal and signature of the responsible registrant appears on the drawing, and proper permit forms and related fees are transmitted by the Owner, Owner's Agent or Contractor to the Authority having jurisdiction.

FOR
INFORMATION
ONLY

Project Manager	Drawn
J. Murdock	J. Murdock
Department Manager	Checked
P. Murphy	B. Pridemore
Print/Plot Date	
June 29, 2021	
Asbuilt/ Drawn	Asbuilt/ Date
-	-
Client	

South Fork Ventures, LLC
3712 RIVERGRASS LANE
YORK, SC 29745
P: (704) 506-2407

Project:
Blackwelder Subdivision

Drawing Title:

**Conditional Rezoning Plan
Site Plan**

Project No. 3329	Drawing No. SP-1
DWG File Name: 3329-Bldg-2nd flr.moving	

SP-1



VICINITY MAP - N.T.S.

DATE	ISSUED FOR	REV
3/16/19	Initial Submittal	0
10/18/20	Per Town of Harrisburg Comments	1
10/23/20	Per NCDOT Comments	2
10/23/20	Per NCDOT Comments	3
11/25/20	Per Town of Harrisburg Comments	4
10/27/21	Per Town of Harrisburg Comments	5
10/28/21	Per Town of Harrisburg Comments	6

Engineer:

R. Joe Harris & Associates, Inc.
Engineering • Land Surveying • Planning
Management

1000 S. Main St., Suite 400, Raleigh, NC 27601
P: 919.433.8800

www.rjoharris.com

This drawing shall not be used for construction purposes until the seal and signature of the responsible registered engineer on the drawing, and proper permit forms and related fees are transmitted to the Owner. Owner's Agent or Contractor to the Authority having jurisdiction.

FOR INFORMATION ONLY

Project Manager	Drawn
J. Murdock	J. Murdock
Client	As-built Date
South Fork Ventures, LLC	

Project:

Blackwelder Subdivision

Drawing Title:

Conditional Rezoning Plan
Landscape Plan

Project No.	Drawing No.
3326	
2019 File Name:	

3326 Blackwelder rezoning

SP-2

CONDITIONAL NOTES:

1. APPLICANT AGREES TO OBTAIN ANY AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR DEVELOPMENT BEFORE ANY DEVELOPMENT ACTIVITY CAN TAKE PLACE.
2. APPLICANT AGREES TO RESTRICT PRIMARY CLADDING MATERIALS FOR ALL RESIDENTIAL BUILDINGS TO MASONRY TO INCLUDE FIBER CEMENT OR SIMILAR PRODUCTS; VINYL SIDING SHALL ONLY BE USED FOR DOORS AND TRIM.
3. APPLICANT AGREES THAT THERE WILL BE NO EXPOSED CONCRETE FOUNDATIONS AND THAT SIDING AND/OR OTHER MATERIAL MUST EXTEND TO THE GROUND LEVEL ON ALL SIDES OF THE HOMES.
4. APPLICANT AGREES TO THE MITIGATION/REPLACEMENT OF IDENTIFIED HERITAGE TREES IF DAMAGED DURING CONSTRUCTION. IN ACCORDANCE WITH THE TOWN OF HARRISBURG UNIFIED DEVELOPMENT ORDINANCE.
5. APPLICANT AGREES TO PROVIDE A MINIMUM 8 FOOT LANDSCAPE EASEMENT (4 FEET ON EACH SIDE OF THE PROPERTY LINE, EXISTING TREES SAVE OR NEWLY PLANTED) FOR RESIDENTIAL LOTS SHARING A REAR PROPERTY LINE.
6. APPLICANT AGREES TO DEDICATE A FEE-IN-LIEU OF PUBLIC OPEN SPACE DEDICATION FOR THE 2.00 ACRES OF REQUIRED PUBLIC OPEN SPACE. IN THE AMOUNT OF \$38,000 PER ACRE, FOR A TOTAL OF \$76,130. ALL FEE-IN-LIEU OF DEDICATIONS SHALL BE MADE TO THE TOWN PRIOR TO FINAL PLAT APPROVAL.
7. APPLICANT AGREES TO CONSTRUCT 10' WIDE PAVED GREENWAY AND DEDICATE 25' GREENWAY EASEMENT AS SHOWN ON THE REZONING SITE PLANS.
8. ALL PONDS SHALL BE WET DETENTION PONDS WITH FOUNTAINS. PONDS SHALL BE DESIGNED SUCH THAT THERE IS A MINIMUM DEPTH OF 10' OVER AT LEAST 25% OF THE PERMANENT POOL AREA.
9. APPLICANT AGREES FENCE SURROUNDING DETENTION POND SHALL BE VINYL 4-RAIL FANS FENCE, PREFERABLY WHITE.
10. APPLICANT AGREES MAILBOX CLUSTERS SHALL MEET ADA STANDARDS AT A MINIMUM.
11. ALL STREETS SHOULD BE TO THE TOWN OF HARRISBURG ENGINEERING DESIGN STANDARDS, ALTERNATE PAVEMENT SCHEDULE IS NOT ALLOWABLE. ROADWAYS CROSS SECTIONS WILL BE REVIEWED AND APPROVED AT THE CONSTRUCTION DOCUMENT PHASE.

DEVELOPMENT NOTES:

1. GENERAL PROVISIONS:

- 1.1. SITE DEVELOPMENT, THESE DEVELOPMENT STANDARDS FORM A PART OF THE REZONING PLAN ASSOCIATED WITH THE REZONING PETITION FILED BY SOUTHFORK VENTURES, LLC (PETITEE) TO ACCOMMODATE THE DEVELOPMENT OF UP TO SEVENTY-SEVEN (77) SINGLE-FAMILY DETACHED DWELLING UNITS AS GENERALLY DEPICTED ON THE REZONING PLAN. THE PROPOSED DEVELOPMENT WILL BE ON AN APPROXIMATELY 40.44-ACRE SITE ON BLACKWELDER ROAD (THE "SITE").
- 1.2. ZONING DISTRICT (ORDINANCE), DEVELOPMENT OF THE SITE WILL BE GOVERNED BY THE REZONING PLAN AS WELL AS THE APPLICABLE PROVISIONS OF THE HARRISBURG ZONING ORDINANCE ("THE ORDINANCE"). UNLESS THE REZONING PLAN ESTABLISHES MORE STRINGENT STANDARDS THE REGULATIONS ESTABLISHED UNDER THE ORDINANCE FOR THE RV ZONING CLASSIFICATION SHALL GOVERN.
- 1.3. GRAPHICS AND ALTERATIONS, THE SCHEMATIC DEPICTIONS LOTS, SIDEWALKS, STRUCTURES AND BUILDINGS, BUILDING ELEVATIONS, DRIVEWAYS, STREETS AND OTHER DEVELOPMENT MATTERS AND SITE ELEMENTS COLLECTIVELY, THE "DEVELOPMENT/SITE ELEMENTS" SET FORTH ON THE REZONING PLAN SHOULD BE REVIEWED IN CONJUNCTION WITH THE PROVISIONS OF THESE DEVELOPMENT STANDARDS, THE LAYOUT, LOCATIONS, SIZES AND FORMULATIONS OF THE DEVELOPMENT/SITE ELEMENTS DEPICTED ON THE REZONING PLAN ARE GRAPHIC REPRESENTATIONS OF THE DEVELOPMENT/SITE ELEMENTS PROPOSED. CHANGES TO THE REZONING PLAN NOT ANTICIPATED BY THE REZONING PLAN WILL BE REVIEWED AND APPROVED AS ALLOWED BY THE TOWN OF HARRISBURG.
- 1.4. SINCE THE PROJECT HAS NOT UNDERGONE THE DESIGN DEVELOPMENT AND CONSTRUCTION PHASES, IT IS INTENDED THAT THIS REZONING PLAN PROVIDE FOR FLEXIBILITY IN ALLOWING SOME ALTERATIONS OR MODIFICATIONS FROM THE GRAPHIC REPRESENTATIONS OF THE DEVELOPMENT/SITE ELEMENTS. THEREFORE, THERE MAY BE INSTANCES WHERE MINOR MODIFICATIONS WILL BE ALLOWED WITHOUT REQUIRING THE ADMINISTRATIVE AMENDMENT PROCESS FOR THE ORDINANCE PENDING REVIEW AND APPROVAL BY THE TOWN OF HARRISBURG. THESE INSTANCES WOULD INCLUDE CHANGES TO GRAPHICS IF THEY ARE MINOR AND DON'T MATERIALLY CHANGE THE OVERALL DESIGN INTENT DEPICTED ON THE REZONING PLAN.
- 1.5. THE PLANNING DIRECTOR WILL DETERMINE IF SUCH MINOR MODIFICATIONS ARE ALLOWED PER THIS AMENDED PROCESS, AND IF IT IS DETERMINED THAT THE ALTERATION DOES NOT MEET THE CRITERIA DESCRIBED ABOVE, THE PETITIONER SHALL THEN FOLLOW THE ADMINISTRATIVE AMENDMENT PROCESS OF THE ORDINANCE. IN EACH INSTANCE, HOWEVER, SUBJECT TO THE PETITIONER'S APPEAL RIGHTS SET FORTH IN THE ORDINANCE.

2. PERMITTED USES & DEVELOPMENT LIMITATION:

- 2.1. THE SITE MAY BE DEVELOPED WITH UP TO SEVENTY-SEVEN (77) SINGLE-FAMILY DETACHED DWELLING UNITS.
- 2.2. THE MINIMUM LOT SIZE SHALL BE 9,375 SQUARE FEET WITH A MINIMUM LOT WIDTH OF SEVENTY-FIVE (75) FEET.

3. ACCESS AND TRANSPORTATION:

- 3.1. ACCESS TO THE SITE WILL BE FROM CONNECTION TO BLACKWELDER ROAD ON THE WESTERN PART OF THE SITE AS DEPICTED ON THE REZONING PLAN.
- 3.2. ADDITIONAL ACCESS TO THE SITE WILL BE FROM CONNECTION TO ABERDEEN WAY ON THE NORTHEAST PART OF THE SITE AS DEPICTED ON THE REZONING PLAN.
- 3.3. THE PLACEMENT AND CONFIGURATION OF THE VEHICULAR ACCESS POINTS ARE SUBJECT TO ANY MINOR MODIFICATIONS REQUIRED TO ACCOMMODATE FINAL SITE DEVELOPMENT AND CONSTRUCTION PLANS AND TO ADJUSTMENTS REQUIRED FOR APPROVAL BY THE TOWN OF HARRISBURG AND/OR NCDDOT IN ACCORDANCE WITH APPLICABLE PUBLISHED STANDARDS.
- 3.4. THE PETITIONER SHALL INSTALL TRANSPORTATION IMPROVEMENTS PER THE APPROVED TRAFFIC IMPACT ANALYSIS.

4. ARCHITECTURAL STANDARDS:

- 4.1. THE BUILDING MATERIALS USED ON THE PRINCIPAL BUILDINGS CONSTRUCTED ON SITE WILL BE A COMBINATION OF PORTIONS OF THE FOLLOWING: BRICK, STONE, PRECAST STONE, PRECAST CONCRETE, SYNTHETIC STONE, CEMENTITIOUS FIBER BOARD, EPS, STUCCO, DECORATIVE BLOCK AND/OR WOOD, VINYL OR ALUMINUM AS A BUILDING MATERIAL MAY ONLY BE USED ON WINDOWS, SOFFITS AND HANDRAILS/RAILINGS. THE PROPOSED ROOFING MATERIALS WILL BE ARCHITECTURAL SHINGLES, WOOD SHAKE, SLATE, TILE AND/OR METAL.
- 4.2. THE MINIMUM SINGLE-FAMILY RESIDENTIAL UNIT SIZE SHALL BE 1,800 SQUARE FEET FOR A SINGLE STORY UNIT AND 2,400 SQUARE FEET FOR A 2-STORY UNIT.
- 4.3. THE PETITIONER AGREES TO RESTRICT CLADDING MATERIALS FOR ALL BUILDINGS TO CLADDING PRODUCTS OTHER THAN VINYL SIDING.

5. STREETSCAPE, BUFFERS, YARDS, LANDSCAPING:

- 5.1. AN EIGHT (8) FOOT TYPE "A" LANDSCAPE BUFFER SHALL BE PROVIDED BETWEEN ADJACENT LAND USES OF THE SAME CLASS.
- 5.2. A FIFTEEN (15) FOOT TYPE "B" LANDSCAPE BUFFER SHALL BE PROVIDED AS GENERALLY DEPICTED.

6. ENVIRONMENTAL FEATURES AND OPEN SPACE:

- 6.1. THE SITE SHALL COMPLY WITH STORMWATER AND WATER QUALITY REQUIREMENTS AS SET FORTH IN THE ORDINANCE.
- 6.2. THE STORMWATER FACILITY WILL PROVIDE PEAK FLOW RATE CONTROL (DETENTION) UP TO THE TWENTY-FIVE (25) YEAR STORM.
- 6.3. A TEN (10) WIDE PAVED PUBLIC GREENWAY TRAIL WITH A TWENTY-FIVE (25) FOOT EASEMENT SHALL BE PROVIDED AS GENERALLY DEPICTED.

7. MISCELLANEOUS PROVISIONS:

- 7.1. PETITIONER AGREES TO OBTAIN ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR DEVELOPMENT BEFORE ANY DEVELOPMENT ACTIVITY OCCURS ON SITE.

8. AMENDMENTS TO THE REZONING PLAN:

- 8.1. FUTURE AMENDMENTS TO THE REZONING PLAN (WHICH INCLUDES THESE DEVELOPMENT STANDARDS) MAY BE APPLIED FOR BY THE THEN OWNER OR OWNERS OF THE APPLICABLE PORTION OF THE SITE AFFECTED BY SUCH AMENDMENT IN ACCORDANCE WITH THE PROVISIONS OF THE ORDINANCE.

9. BINDING EFFECT OF THE REZONING APPLICATION:

- 9.1. IF THIS REZONING PETITION IS APPROVED, ALL CONDITIONS APPLICABLE TO THE DEVELOPMENT OF THE SITE IMPOSED UNDER THE REZONING PLAN WILL, UNLESS AMENDED IN THE MANNER PROVIDED UNDER THE ORDINANCE, BE BINDING UPON AND INSURE TO THE BENEFIT OF THE PETITIONER AND SUBSEQUENT OWNERS OF THE SITE AND THEIR RESPECTIVE HEIRS, DEVISEES, PERSONAL REPRESENTATIVES, SUCCESSORS IN INTEREST OR ASSIGNS.

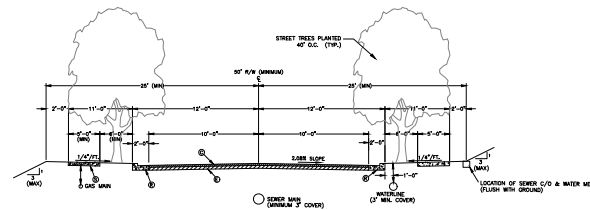
RIVERSTREAM OVERLAY CALCULATION NOTE:

CLASS 1 STREAM BUFFER SHALL BE MEASURED FROM THE AVERAGE ANNUAL STREAM BANK PERPENDICULARLY FOR A DISTANCE OF 50 FEET PLUS FOUR (4) TIMES THE AVERAGE PERCENT OF SLOPE OF AREA ADJACENT TO THE STREAM. SLOPE CALCULATED BY MEASURING A DISTANCE OF 250 FEET FROM THE CENTER OF THE STREAM. MAXIMUM DISTANCE SHALL NOT EXCEED 10 FEET FROM THE EDGE OF THE STREAM.

MAX. AVERAGE EXISTING SLOPE FOR 250' DISTANCE FROM CREEK = 4.3% = 16.4%
R100 = MINIMUM 90' ± (4" AVERAGE SLOPE)
R100 PROVIDED = 87.2' - 115.8' FROM TOP OF BANK



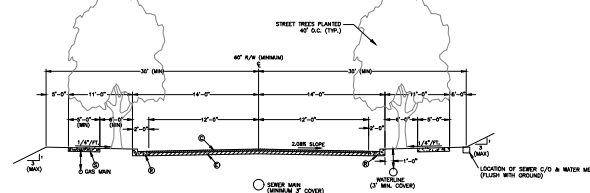
VICINITY MAP - N.T.S.



RESIDENTIAL LANE

- PAVEMENT SCHEDULE
- 1" 1.5" BITUMINOUS CONCRETE SURFACE COURSE - TYPE B-10
 - 2.5" BITUMINOUS CONCRETE INTERMEDIATE COURSE - TYPE B-10
 - 4" CRUSHED AGGREGATE BASE COURSE
 - 2"-0" STANDARD CURB AND GUTTER
 - 8" CONCRETE SIDEWALK

NOTE:
• ALTERNATE PAVEMENT SCHEDULE IS NOT ALLOWABLE.
• ROADWAY CROSS SECTIONS WILL BE REVIEWED AND APPROVED AT THE CONSTRUCTION PHASE.



RESIDENTIAL LANE

- PAVEMENT SCHEDULE
- 1" 1.5" BITUMINOUS CONCRETE SURFACE COURSE - TYPE B-10
 - 2.5" BITUMINOUS CONCRETE INTERMEDIATE COURSE - TYPE B-10
 - 4" CRUSHED AGGREGATE BASE COURSE
 - 2"-0" STANDARD CURB AND GUTTER
 - 8" CONCRETE SIDEWALK

NOTE:
• ALTERNATE PAVEMENT SCHEDULE IS NOT ALLOWABLE.
• ROADWAY CROSS SECTIONS WILL BE REVIEWED AND APPROVED AT THE CONSTRUCTION PHASE.

DATE	ISSUED FOR	REV
12/16/19	Initial Submittal	0
03/19/20	Per Town of Harrisburg Comments	1
04/23/20	Per NCDDOT Comments	2
06/30/20	Per NCDDOT Comments	3
11/25/20	Per Town of Harrisburg Comments	4
04/02/21	Per Town of Harrisburg Comments	5
06/29/21	Per Town of Harrisburg Comments	6



Engineer:



R. Joe Harris & Associates, Inc.
Engineering • Land Surveying • Planning
Management

1800 Central Exp. Way, Suite 407, 27060

www.rjoharris.com

This drawing shall not be used for construction purposes until the seal and signature of the responsible registered engineer on the drawing, and proper permit forms and related fees are transmitted to the Center. Owner's Agent or Contractor to be transmitted to the Center. Owner's Agent or Contractor to be transmitted to the Center.

FOR
INFORMATION
ONLY

Project Manager	Drawn
J. Murdock	A. Bowersox
Construction Manager	Checked
P. Murphy	P. Murphy

Print Plot Date

June 29, 2021

As-built Date

-

Client

South Fork Ventures, LLC
3712 RIVERGRASS LANE
YORK, SC 29745
P: (704) 506-2407

Project:

Blackwelder Subdivision

Drawing Title:

Conditional Rezoning Plan
Details

Project No.

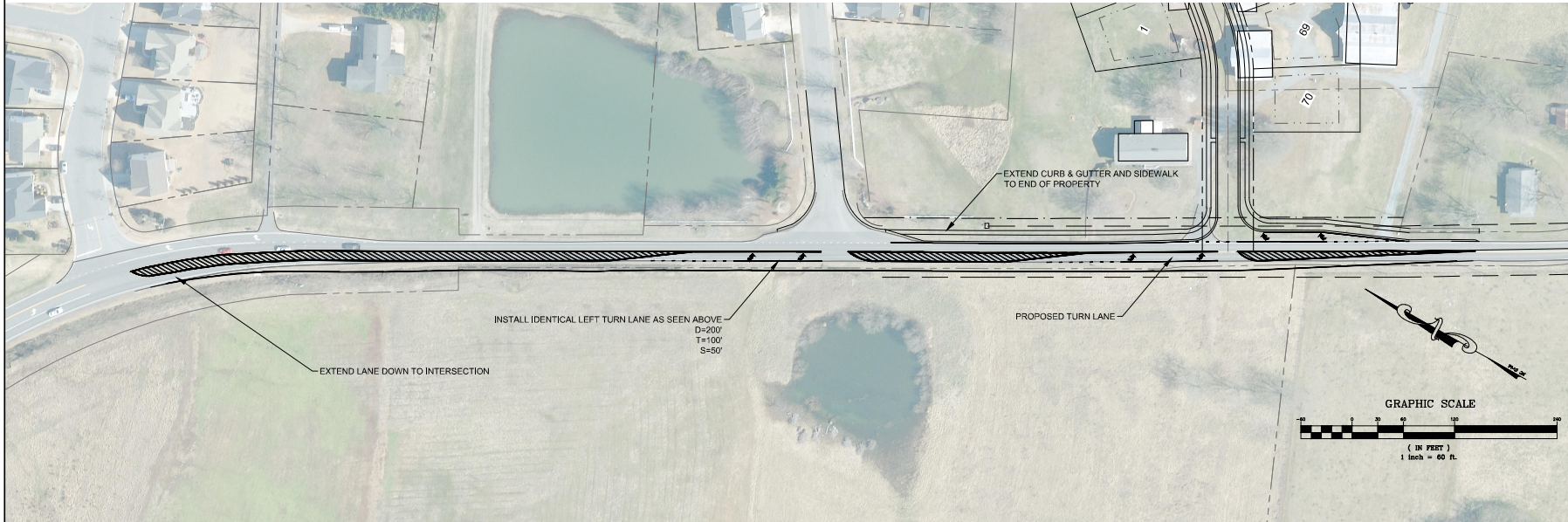
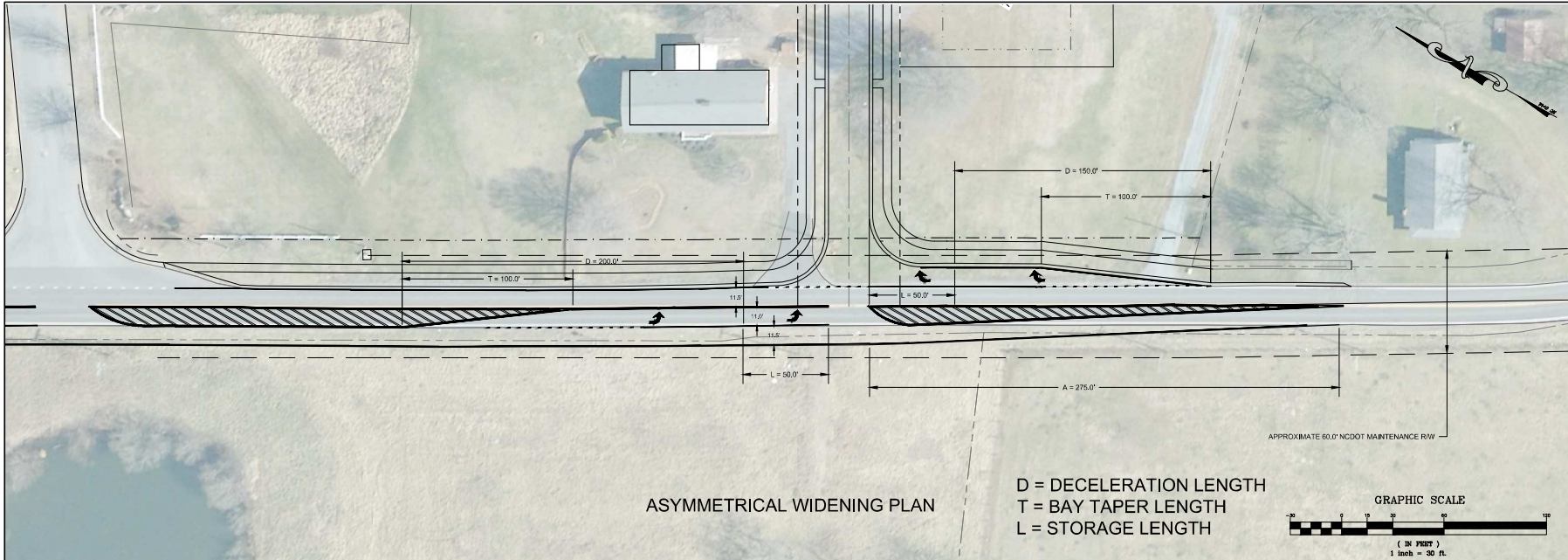
0306

2019 File Name:

0306-Blackwelder.mxd

Drawing No.

SP-3



DATE	ISSUED FOR	REV
12/15/19	Initial Submittal	0
03/19/20	Per Town of Harrisburg Comments	1
04/23/20	Per NCDOT Comments	2
06/26/20	Per NCDOT Comments	3
11/25/20	Per Town of Harrisburg Comments	4
04/27/21	Per Town of Harrisburg Comments	5
05/26/21	Per Town of Harrisburg Comments	6



R. Joe Harris & Associates, Inc.
Engineering • Land Surveying • Planning
Management

www.rjoharris.com

This drawing shall not be used for construction purposes until the seal and signature of the responsible registered engineer on the drawing, and proper permit forms and related fees are transmitted by the Client, Owner's Agent or Contractor to the Authority having jurisdiction.

FOR
INFORMATION
ONLY

Project Manager	Drawn
J. Murdock	J. Murdock
Checkmark Manager	Checkmark
P. Murphy	B. Pridemore

Print/Plot Date
JUNE 29, 2021

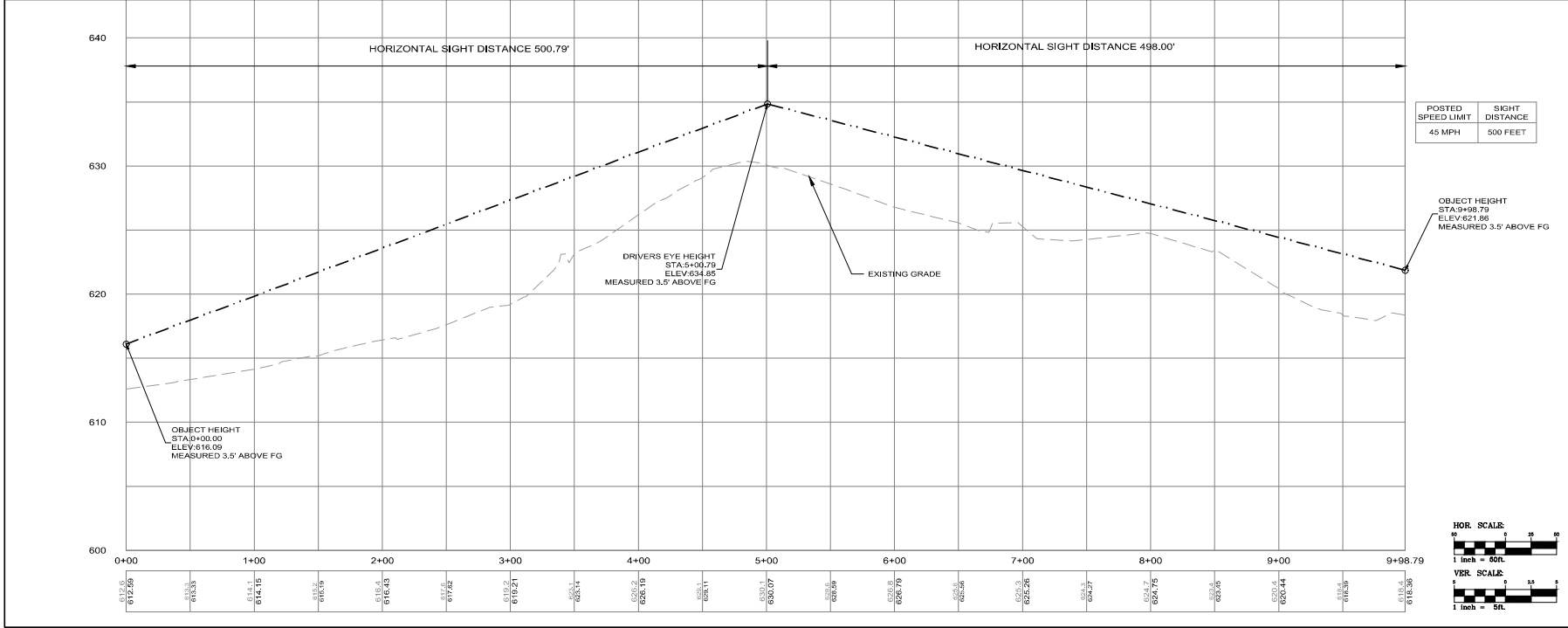
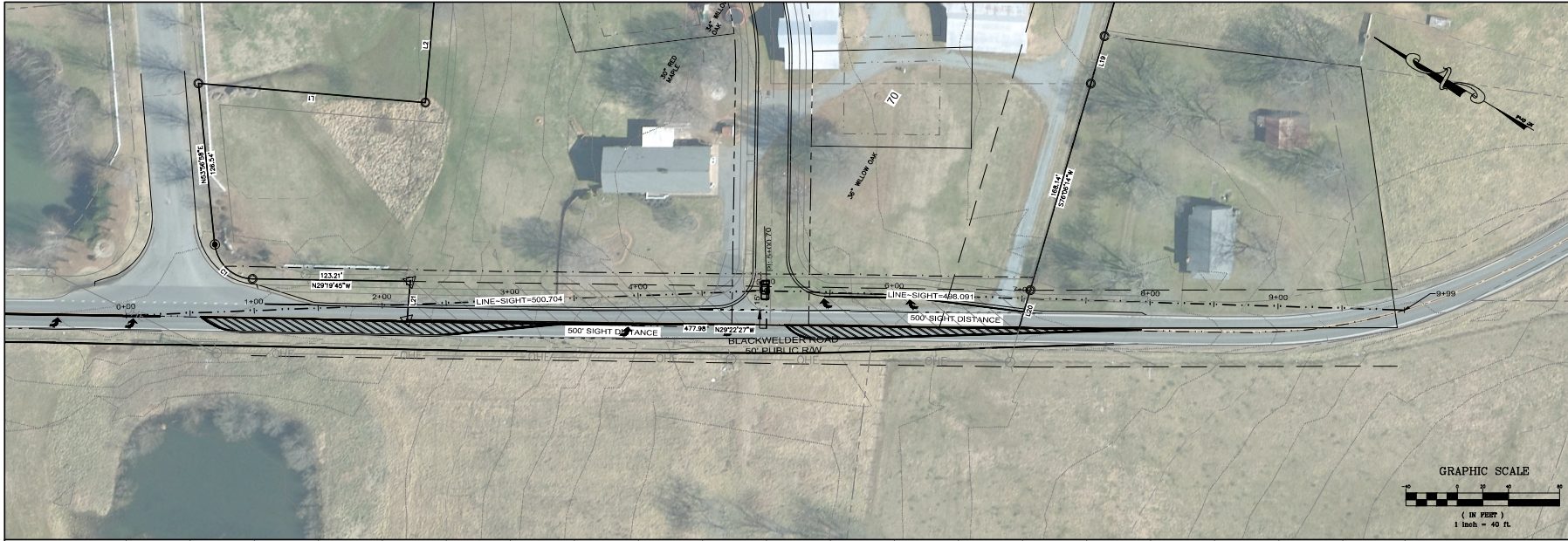
Author/Drawn	Asbuilt Date
-	-

Client
SOUTH FORK VENTURES, LLC
3712 RIVERGRASS LANE
YORK, SC 29745
(704) 506-2407

Project:
BLACKWELDER
SUBDIVISION

Drawing Title:
ROAD WIDENING EXHIBIT

Project No.	Drawing No.
0350	SP-4
0350 File Name:	
0350\0350\0350.dwg	



DATE	ISSUED FOR	REV
12/16/19	Initial Submittal	0
03/19/20	Per Town of Harrisburg Comments	1
04/23/20	Per NCDOT Comments	2
06/30/20	Per NCDOT Comments	3
11/25/20	Per Town of Harrisburg Comments	4
04/27/21	Per Town of Harrisburg Comments	5
08/26/21	Per Town of Harrisburg Comments	6



Engineer:



R. Joe Harris & Associates, Inc.
 Engineering • Land Surveying • Planning Management
 220 East 1st Street, Suite 100, York, NC 29745
 P: (704) 506-2407

www.rjoe-harris.com

This drawing shall not be used for construction purposes until the seal and signature of the responsible registered engineer on the drawing, and proper permit forms and related fees are transmitted by the Owner, Owner's Agent or Contractor to the Authority having jurisdiction.

FOR INFORMATION ONLY

Project Manager	Drawn
J. Murdock	J. Murdock
Prepared Manager	Checked
P. Murphy	B. Pridemore
Print/Plot Date	Asbuilt Date
April 23, 2020	-

Client:

SOUTH FORK VENTURES, LLC
 3712 RIVERGRASS LANE
 YORK, NC 29745
 P: (704) 506-2407

Project:

Blackwelder Subdivision

Drawing Title:

Site Distance Profile

Project No.	Drawing No.
2309	SD-1
2309 File Name:	
2309-Blackwelder-Sub	
03/26/20	



Town of Harrisburg
Planning and Economic Development Department
Rezoning Staff Report

DATE: July 13, 2021

SUBJECT: Blackwelder Road Properties

Request H-2020-02-(R): To rezone approximately 39.46 acres from LDR, Low Density Residential (County) to CZ-RV, Conditional Residential Village

Location: The subject property is located off Blackwelder Road between Roberta Road and Lakeland Road. (PIN 55184487900000 and 55183432930000)

Applicant: Southfork Ventures, LLC on behalf of owner (Jenoal Blackwelder)

Staff Report Prepared by: Craig Thomas, Senior Planner
Planning & Economic Development Department

Neighborhood Meeting: Held January 23rd, 2020

BACKGROUND:

Area: ±39.46 acres Total (39.17 Net)

Existing Land Use: Vacant/Single-Family Residential

Zoning within 500 feet: North – LDR, Low Density Residential
South – LDR, Low Density Residential
East – LI, Light Industrial
West – LDR, Low Density Residential

Land Uses within 500 feet: North – Single-Family Residential
South – Vacant and Single-Family Residential
East – Vacant
West – Vacant

APPLICATION SUMMARY:

- The applicant proposes to develop a 70-lot single-family subdivision. To achieve this, the applicant is requesting the property be annexed into Harrisburg Town limits, and rezoned from current Cabarrus County Low Density Residential (LDR) district to Conditional Residential Village (CZ-RV) in accordance with the site plan submitted with the application.
- The proposed density of the site is 1.79 dwelling units per acre, as stated on plans with 70 lots. The RV district has a maximum density of 8 dwelling units per acre but upon approval of this rezoning, the density will be capped at 1.79 units/acre and the site plan will be attached with the land.
- Per the Town subdivision regulations, the applicant is providing dedicated public open space. The applicant proposes the development of 16.65 acres of open space as part of the development.
- As a conditional zoning request, the applicant has submitted a site plan along with the request for rezoning, which is attached for your consideration.
- The applicant agreed to construct a 10' paved greenway and dedicate a 25' greenway easement as shown on the rezoning site plans.
- The property is currently unincorporated area within Cabarrus County. Applicant has submitted a Petition requesting Annexation for the subject property which is contiguous to the current Town of Harrisburg corporate limits.
- The rezoning request to Residential Village (RV) is not consistent with the recommendation in the HALUP for the Low Density Residential (LDR) areas, Staff is presenting this for Planning and Zoning Board's consideration without staff recommendation as requested by the applicant.

APPROVAL CRITERIA:

1. The size of the tract in question;

The subject property is approximately 39.46 acres in size.

2. Whether the proposal conforms with and is in furtherance of the implementation of the goals and policies of the Comprehensive Plan, other adopted plans, and the goals, objectives and policies of the Ordinance;

Per the Unified Development Ordinance, the intent of the proposed district depicted on the submitted site plan is as follows:

***RV:** The RV district is established to provide areas for detached and attached single family homes, with a maximum of eight (8) dwelling units per acre, in areas where large-lot development is discouraged and adequate public facilities and services are available. RV supports the principles of concentrating urban growth and reinforcing existing community centers.*

Per the Harrisburg Area Land Use Plan, the subject property is located in an area designated on the future land use map as Low Density Residential. The description of Low Density Residential is as follows:

“This area is characterized by low- to moderate-density residential development (up to 3 dwelling units per acre). Single-family detached homes are complemented by natural areas as well as formal and informal open space amenities. Conservation design, which includes more open space in exchange for small minimum lot sizes, may be recommended in locations with sensitive natural resources.”

Based on the description of the Low Density Residential land use classification, the proposed development, at 1.79 dwelling units per acre would fall within the threshold of up to 3 dwelling units per acre that has been set for this area in the Land Use Plan.

The proposed development does not meet one of the primary goals of the plan.

Recommendation LU-7 of the Plan recommends consistency between the Town’s zoning regulations and the adopted Future Land Use Map. A table included as part of this goal establishes the “appropriate” zoning districts to use when making zoning decisions based on the Future Land Use Map. The map, as previously stated, designates this area as Low Density Residential. The table indicates that the RV district is not an appropriate for this land use classification. A more appropriate zoning classification would be RM-1 (15,000 sq foot minimum lot size or RL (20,000 sq ft minimum). The proposal indicates minimum lot sizes at 9,400 square feet.

3. The benefits or detriments for the owner, neighbors and surrounding community;

The benefits to the owner of the property would be that single-family residential development at the proposed density of 1.79 dwelling units per acre could be achieved under the proposed zoning. The existing zoning restricts density to 1 dwelling unit per acre.

Detriments to the neighbors and surrounding community are consistent with those expected with additional residential development, such as generation of additional traffic and potential traffic congestion during peak times. The proposal includes a full-movement main entrance on Blackwelder Road. There is also a connection to Aberdeen Way to the north and a future extension of Aberdeen Way to the south. This will help alleviate the reliance on a single entrance and divert local traffic through the neighborhood. Benefits to the neighbors and the surrounding community include the dedication and construction of an additional segment of greenway.

4. Whether the proposed request is in compliance with the adequate public facilities criteria;

a. Utilities:

Utilities are available in this area, and are sufficient to meet the needs of this property. Water line is located along Blackwelder Road and sewer access is available from the development to the north of the property and accessible from the west. Any utility line extensions or upgrades necessary to serve this development will be the responsibility of the developer.

b. Transportation:

A TIA was not required based on the proposed number of lots. However, future right of way on Blackwelder Road is being dedicated and will be available for future expansion. A full access movement along with a dedicated right turn lane will also be constructed on Blackwelder Road including 300 feet of pavement widening and associated taper. The greenway will be constructed and eventually connect throughout town as additional subdivisions are built with greenways.

c. Safety and Sanitation Services:

Adequate police, fire, and sanitation services are available for the proposed use, and will be provided upon annexation.

d. Schools:

Per Cabarrus County, the APF Ordinance for schools is currently not being enforced after a ruling by the NC Supreme Court. However, Cabarrus County Schools does still review the capacity of the K-12 schools that this development will feed into and provides future capacity numbers based on the units proposed. For this site, Cabarrus County has provided the following information:

Current Capacity:

Elementary (Pitts School Road ES)	<u>93%</u>
Middle (JN Fries MS) -	<u>90%</u>
High (Hickory Ridge HS) -	<u>104%</u>

Future Capacity Based on Unbuilt Lots and Including this Request:

Elementary (Pitts School Road ES)	<u>96%</u>
Middle (JN Fries HS) -	<u>92%</u>
High (Hickory Ridge HS) -	<u>105%</u>

As per Cabarrus County School, the Single-family homes in this development will generate upon full buildout an additional 30 elementary students, 15 middle school students, and 20 high school students.

5. The relationship of the uses envisioned under the new zoning and the uses currently present in adjacent tracts. The Commission shall consider the following:

- a. **Whether the proposed zoning is compatible with the surrounding area or whether there will be adverse impacts on the capacity or safety of the portion of street network influenced by the rezoning, parking problems, or environmental impacts that the new use will generate such as excessive storm water runoff, water, air or noise pollution, excessive nighttime lighting or other nuisances;**

The proposed use and density (1.79 dwelling units per acre) are compatible with existing neighborhoods in the area. The density is slightly lower than those developments and the lot sizes are similar. Properties to the west and south of the site currently exists as rural homesteads, so the proposed development would represent a change compared to those areas.

- b. **Any change of character in the area due to installation of public facilities, other zoning changes, new growth changes, deterioration, and development;**

Like all other development activity in this area, the development of this land would convert former farmland and forestland into residential neighborhoods, while preserving appropriate area for open space/tree save.

- c. **The zoning districts and existing land uses of the surrounding properties;**

The areas around this property are generally zoned for low to medium density residential use. Existing land use patterns in the area typically consist of low to medium density residential neighborhoods and vacant forested land and land previously used for agricultural purposes.

- d. **Whether the subject property is suitable for the uses to which it has been restricted under the existing zoning classification;**

The property is suitable for the uses which it has been restricted to under the existing zoning classification.

- e. **Whether the rezoning is compatible with the adjacent neighborhood, especially concerning neighborhood stability and character;**

As previously mentioned, the specific use of the property, single family residential, is consistent with surrounding neighborhoods. The primary point of potential inconsistency would be the introduction of relatively smaller lots into this area, which is not in alignment with the Land Use Plan recommendations.

- f. **The length of time the subject property has remained vacant as zoned (if applicable);**

This property has been used for residential and agricultural purposes.

- g. **Whether there is an adequate supply of land available in the subject area and the surrounding community to accommodate the zoning and community needs;**

Land supply is not a direct issue in this area.

6. Whether the existing zoning was in error at the time of adoption.

The existing zoning was not in error at the time of adoption.

Furthermore, as a Conditional Zoning request, the Board must consider the following criteria:

7. The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and consistency with the purposes, goals, objectives, and policies of the current Land Use Plan.

The rezoning application to RV district to the property, with the proposed density limitation, is consistent with the density; however, the lot size standards established for the base RV Zoning District in the Unified Development Ordinance is not consistent with the Low-Density Residential land use classification recommended in the Land Use Plan.

The development proposal accompanying the rezoning request would restrict permitted uses to single family residences, which are appropriate in this area.

8. The use(s) requested are among those listed as an eligible permitted or conditional use in the general use district as included in the rezoning request.

The applicant is seeking for the following uses to be allowed in this Conditional Zoning District:

- Single-Family Detached Residential; this use is allowed in the RV District.

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

The applicant intends to work collaboratively with both Harrisburg town staff and the NC Department of Transportation in identifying and implementing roadway improvement measures on perimeter roadways intended to mitigate adverse transportation impacts associated with the proposed development. Currently two vehicular site access points are planned, one full-movement onto Blackwelder Road and one access point onto Aberdeen Way. A third access will be available when the property to the south is developed and a connection is established. The planned greenway will provide residents in the area greater bicycle and pedestrian mobility alternatives.

Landscaping buffers shown are adequate to meet the needs of the adjacent properties, and town staff is working with the applicant to identify any prospective tree save opportunities on the site that could be incorporated into the final planting plan.

10. The use limitations and conditions as proposed and/or imposed for the requested district can reasonably be implemented and enforced for the subject property.

The conditions proposed and imposed for this district can be reasonably implemented on this site.

11. When implemented the proposed and/or imposed use limitations and conditions will mitigate specific land development issues that would likely result if the subject property were zoned to accommodate all the uses and the minimum standards of the corresponding general zoning district. If any standards are proposed that are different from the underlying zoning district, the applicant must clearly demonstrate that the overall resultant project is greater than that which is typically allowed by the general district.

All proposed conditions recommended by staff are to bring the site into conformance with applicable local and state regulations. Staff recommended either the RM-1 or RL zoning classification with larger minimum lot sizes and possibly fewer lots to align with the HALUP recommended land use and corresponding zoning for the area. The applicant has acknowledged and would like to proceed without staff recommendation of approval.

12. The applicant has agreed to accept the use limitations and conditions as proposed and/or imposed for the requested district.

The applicant will need to agree to all conditions listed in this staff report. Any additional conditions placed on this property will need the acceptance of the applicant before a decision can be made on this application.

13. For an approval, the Board must adopt a consistency statement that the amendment being considered is either consistent or inconsistent with the adopted land use plan and that the Board considers the action to be reasonable and in the public interest.

Both the Planning Board and the Town Council will need to adopt a consistency statement when a recommendation or decision is made on this item.

APPROVAL WITH CONDITIONS:

The proposal is a conditional re-zoning request. Conditions may be imposed on the zoning action; staff recommends that the following conditions be placed on this project. Applicant agrees to the following:

1. Applicant agrees to obtain any and all applicable local, state, and federal permits required for development before any development activity can take place.
2. Applicant agrees to restrict primary cladding materials for all residential buildings to masonry or similar products; vinyl siding will not be used.
3. Applicant agrees that there will be no exposed concrete foundations and that siding and/or other material must extend to the ground level on all sides of the homes.

4. Applicant agrees to the mitigation/replacement of identified heritage trees if damaged during construction, in accordance with the Town of Harrisburg Unified Development Ordinance.
5. Applicant agrees to provide a minimum 8 foot landscape easement (4 feet on each side of the property line, existing tree save or newly planted) for residential lots sharing a rear property line.
6. Applicant agrees to dedicate a fee-in-lieu of Public Open Space dedication for the 2.00 acres of required Public Open Space, in the amount of \$38,065 per acre, for a total of \$76,130. All fee-in-lieu of dedications shall be made to the Town prior to final plat approval.
7. Applicant agrees to construct 10' wide paved greenway and dedicate 25' greenway easement as shown on the rezoning site plans.
8. All ponds shall be wet detention ponds with fountains. Ponds shall be designed such that there is a minimum depth of 10' over at least 25% of the permanent pool area.
9. Applicant agrees fence surrounding detention pond shall be vinyl 4-rail farm fence, preferably white.
10. Applicant agrees mailbox clusters shall meet ADA Standards at a minimum.
11. All streets should be to the Town of Harrisburg Engineering Design standards, alternate pavement schedule is not allowable. Roadways cross sections will be reviewed and approved at the construction document phase.

RECOMMENDATION:

Even with the conditions proposed, the rezoning request is not consistent with the Harrisburg Area Land Use Plan. Planning and Zoning Department staff is not making a recommendation of approval or denial at this time and is asking Planning and Zoning Board to consider rezoning request with conditions as presented.



R. Joe Harris & Associates, Inc.

1186 Stonecrest Blvd., Tega Cay, S.C. 29708
(803) 802-1799

January 23, 2020

Sushil Nepal, AICP – Director
Town of Harrisburg
Planning & Economic Development
4100 Main Street
Suite 102
Harrisburg, NC 28075

**RE: Blackwelder Subdivision
 Neighborhood Meeting Summary**

RJH Project #3329

Dear Mr. Nepal:

On January 23, 2020, the Town of Harrisburg conducted a neighborhood meeting for the referenced development. R. Joe Harris & Associates, presented a PowerPoint presentation which included an aerial image of the site, a copy of the conditional rezoning plan, an overlay of the proposed development and adjacent residential developments within a half of a mile of the site, and a development summary which outlined the size of the development tract, number of proposed lots, density, proposed open space, traffic impact study, and general lot dimensions, side yards, and buffers.

Following the presentation, R. Joe Harris & Associates opened up the floor for questions and discussion for the neighbors in attendance. Discussions included, desire to not see development on this track, questions regarding lots sizes, home sizes, price points, and traffic impacts.

Please feel free to reach out if you have any questions.

Sincerely,

R. JOE HARRIS & ASSOCIATES, INC.

Jonathan R. Murdock, PE
Asst. Engineering Manager

BLACKWELDER

CONDITIONAL REZONING – HARRISBURG, NC

SAMPLE HOUSE ELEVATIONS

**(ELEVATIONS ARE SUBMITTED AS EXAMPLES/SAMPLES OF THE TYPES OF HOMES TO BE BUILT WITHIN THE
BLACKWELDER COMMUNITY. FINAL ELEVATIONS AND STYLES MAY VARY, BUT MEET INTENT OF ILLUSTRATIVE
HOME STYLES SHOWN)**















R. Joe Harris & Associates, Inc.

1186 Stonecrest Blvd., Tega Cay, S.C. 29708
(803) 802-1799

April 27, 2021

Mr. Sushil Nepal
Town of Harrisburg
4100 Main Street, Suite 103
Harrisburg, NC 28075

**RE: BLACKWELDER SUBDIVISION
PUBLIC OPEN SPACE**

RJH Project #3329

Dear Mr. Nepal:

On behalf of the developer (South Fork Ventures, LLC), we would like to present payment in lieu of dedication of public opens space for the proposed single family subdivision on Blackwelder Road.

The proposed development will include 70 lots which would require 2.00 acres of public open space based on 1/35 acre per lot. The current assessed value of land (per acre) as taken from GIS is \$38,065.00. This value will be used to calculate the fees unless the sale price of the land yields a larger price per acre, in which case, the fee will be adjusted to reflect the sales price.

On behalf of South Fork Ventures, we request to provide mitigation payment at the time of platting:

Total fee to be paid = \$38,065.00/acre x 2.00 acres = \$76,130.00

The developer agrees to level/grade off the dedicated greenway easement to aid in establishing a natural surface multi-use path to be used by the homeowners as part of the construction of the project.

If you should have any questions or require any additional information, please feel free to contact us.

Sincerely,

R. JOE HARRIS & ASSOCIATES, INC.

Jonathan R. Murdock, PE
Assist. Engineering Manager



TOWN OF HARRISBURG

Agenda Item Details

Title:

H2020-07 (R) – Conditional Rezoning and Zoning Map Amendment for McKinley Residential Subdivision off of Lower Rocky River Rd.

Presenting Personnel:

Sushil Nepal, Planning & Economic Development Director

Suggested Motion or Action:

If approved, the following motion is suggested:

To approve the conditional rezoning request from Countryside Residential (CR) in the County to Conditional Residential Low Density (CZ-RL) Conservation Subdivision, as requested by the applicant for the related property in application H2020-07 (R).

If denied, the following motion is suggested:

To approve the conditional rezoning request from Countryside Residential (CR) in the County to Conditional Residential Low Density (CZ-RL) Conservation Subdivision, as requested by the applicant for the related property in application H2020-07 (R).

Description/Background:

Timmons Group, on behalf of the the property owners of parcels 5526-14-5424 and 5526-21-2487 has submitted a request to rezone approximately 193.12 acres of land located on the western side of Lower Rocky River Road near the intersection of Pioneer Mill Road. The applicant proposes to develop a single-family subdivision with 162 detached units, with a combination of 80' wide lots (138) and 100' wide lots (24) and minimum lot sizes of 1/3rd acre. To achieve this, the applicant is requesting that the property be rezoned from County CR (Countryside Residential) to CZ-RL (Conditional Zoning Residential Low Density) utilizing Conservation Subdivision guidelines. The proposed gross density of the site is 0.85 dwelling units per acre.

The property is in the County, applicant has also submitted a Petition requesting Annexation for the subject property which is contiguous to the current Town of Harrisburg corporate limits. A Town Council public hearing will be held to take action on the rezoning and annexation at the same time.

A staff report is attached for more information and a site plan is submitted for your consideration. If approved, staff will continue reviewing the site plan in accordance with our Unified Development Ordinance (UDO) during the subsequent Preliminary Plat and Construction Document (CDs) reviews. Staff is recommending approval of the rezoning request with conditions included in the staff report.

Recommendation:

With the conditions proposed, the rezoning request is consistent with the Harrisburg Area Land Use Plan and the Unified Development Ordinance. Planning and Zoning Department staff recommends the approval of the rezoning request with conditions.

Fiscal Impact:

None.

Attachments:

1. H2020_07-R_Conditional Rezoning Application
2. H2020_07-R_Site Map
3. H_2020_07_R Staff Report PB
4. H2020_07-R_Rezoning Site Plan
5. H2020_07-R_Home Elevations
6. H2020_07-R_Env Feature Assessment
7. H2020_07-R_Neighborhood Meeting Summary
8. H2020_07-R_TIA Report



APPLICATION FOR CONDITIONAL REZONING

Applications for a Conditional District must be accompanied by an application for a Zoning Map Amendment.

1. Please submit fifteen (15) copies of a complete development plan in conformance with Appendix B, Section B-4 of the UDO (all conditional rezoning applications shall include a site specific development plan which, if approved, shall be binding on the property in question). If approved, a zoning site plan review and approval will be required to receive a zoning compliance permit. For specific requirements, please see the form entitled “Site Plan Requirements”.
2. Please list the specific permitted land use(s) that you are proposing. Land use(s) shall be chosen from Article 4.6 in the Harrisburg UDO titled “Use Regulations” and shall correspond to the Zoning District requested.

Single Family Detached with Amenity

3. Please list any specific conditions that you would be willing to impose as part of this application (example: no outside storage permitted on-site, increased buffer width, etc.).

Single Family Detached Lots

Front Setback: 25', Side Setback: 10', Rear Setback: 40', Corner Setback: 25'

Reduction of lot size from 20,000sf to 14,520sf

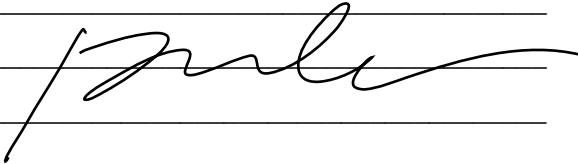


Owner Information

It is understood by all parties hereto that while this application will be carefully considered and reviewed, the burden of providing its need and providing all required evidence rests with the below named petitioner. In addition, it is understood and acknowledged that if the property is rezoned as requested, the property involved in this request will be perpetually bound by the use(s) authorized and subject to such conditions as imposed, unless subsequently changed or amended through the rezoning process. It is further understood and acknowledged that it is the responsibility of the petitioner to file the development plan in the Cabarrus County Register of Deeds Office as a deed restriction upon the subject property.

If, after two years from the date of approval substantial construction has not begun, the property in question may revert to its prior zoning designation after a public hearing is held in compliance with the required procedure for a zoning map amendment.

I do hereby certify that all information which I have provided for this application is, to the best of my/our knowledge, correct.

Property Owner	<u>Bethesda Association LLC</u>	<u>Rocky Investments LLC</u>
Address	<u>600 Park Offices Drive</u>	<u>205 Iveyshaw Road</u>
	<u>Durham, North Carolina 27709</u>	<u>Cary, North Carolina 27519</u>
Phone	<u>919-815-9987</u>	
Fax	<u></u>	
Signature	<u></u>	

NOTE: If multiple parcels are involved in a request, property owners must sign an application identifying the individual parcel(s) represented. Each parcel included in the request must be accounted for in the application process for the application to be considered complete.

OFFICIAL USE ONLY:

Petition Number: _____

Date Filed: _____

Received By: _____



APPLICATION FOR ZONING MAP AMENDMENT

The following steps are required in order for your application to be considered complete.

Incomplete applications will be returned to the applicant and will not be processed.

1. Schedule a pre-application meeting with staff.
2. Submit a completed application for an amendment to the official zoning map. All applications must include:
 - a. A list of all adjacent property owners (include owner name, address, and Parcel Identification Number)
 - b. A recent survey or legal description of the property or area to be rezoned
 - c. A copy of the letter, minutes, and the sign-up sheet from the Neighborhood Meeting
 - d. Copies of the Traffic Impact Analysis (TIA), proposed site plan, landscape plan, and proposed building elevations (applicability determined at pre-application meeting with staff)
3. Submit cash, checks, or money orders made payable to the Town of Harrisburg for all fees listed in the pre-application checklist.

Overview of the Rezoning Process:

1. Hold a pre-application meeting with staff to discuss your rezoning request and the map amendment process.
2. Hold a **neighborhood meeting** with the adjacent property owners. All adjacent property owners must be contacted and given an opportunity to meet with the applicant at a meeting established at a reasonable time. No member of the Town decision-making entity may participate in this meeting.
3. Submit a Zoning Map Amendment application to the Town of Harrisburg Planning Department. All applications must be submitted by the third Tuesday of the Month to go before the Planning and Zoning Board on the following month. NOTE: If the request is a Conditional Zoning request, complete and submit, with this application, a Conditional Rezoning Application.
4. Planning staff will review your application and subsequent information, prepare a staff report for the Board and take your request to the Planning and Zoning Board for a recommendation to the Town Council. Planning Board meetings are held on the third Tuesday of every month at 7:00 PM.
5. Once the Planning and Zoning Board has made a recommendation, staff will notify the adjacent property owners of the public hearing, post a sign on the property, and place announcements of the hearing in the local newspaper.
6. Town Council meetings are held on the second Monday of every month at 7:00 PM. At this meeting the Council will hold a public hearing and may vote on your request. Meetings are held at the Harrisburg Town Hall located at 4100 Main Street, Suite 101.

Questions: Contact the Town of Harrisburg Planning Department with any questions regarding rezonings in the Town of Harrisburg. Staff can be reached at 704-455-0709.



Subject Property Information

1. Street Address ① 1507 Burlwood Road
 ② 9820 Lower Rocky River Road
2. PIN(s) (10 digit#) ① 5526 -- 212 -- 487 ; ② 5526 -- 145 -- 424
3. Deed Reference Book ① 06749 Page 0219
 ② 06749 0203
4. Township # 1

Description of Subject Property

5. Size (square feet or acreage) 193.62± acres
6. Street Frontage (feet) 728± feet
7. Current Land Use Vacant
8. Surrounding Land Use and Zoning Classification
- | | |
|-------------------------|-------------------------------|
| North: Zoning <u>CR</u> | Land Use <u>Single Family</u> |
| South: Zoning <u>CR</u> | Land Use <u>Single Family</u> |
| East: Zoning <u>CR</u> | Land Use <u>Single Family</u> |
| West: Zoning <u>CR</u> | Land Use <u>Single Family</u> |
9. Request to Change Zoning From CR to CZ-RL Conservation Subdivision
10. Is this a request for a Conditional Rezoning? YES NO

(If YES, you must also submit an application for a Conditional Rezoning)

11. Purpose for Request: Rezoned to CZ-RL conservation subdivision to allow for up to 140 82' 1/3-acre lots
and up to 22 100' 1-acre lots, with an amenity lot

Front Setback: 25', Side setback: 10', Rear Setback: 40', Corner Setback: 25'



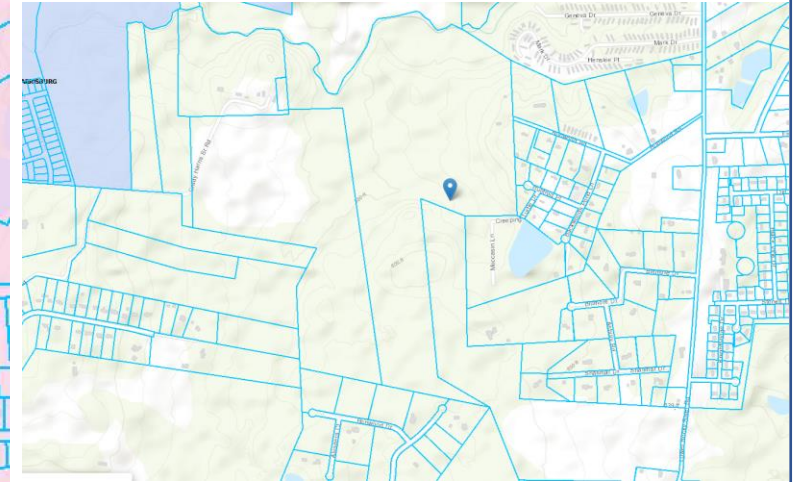
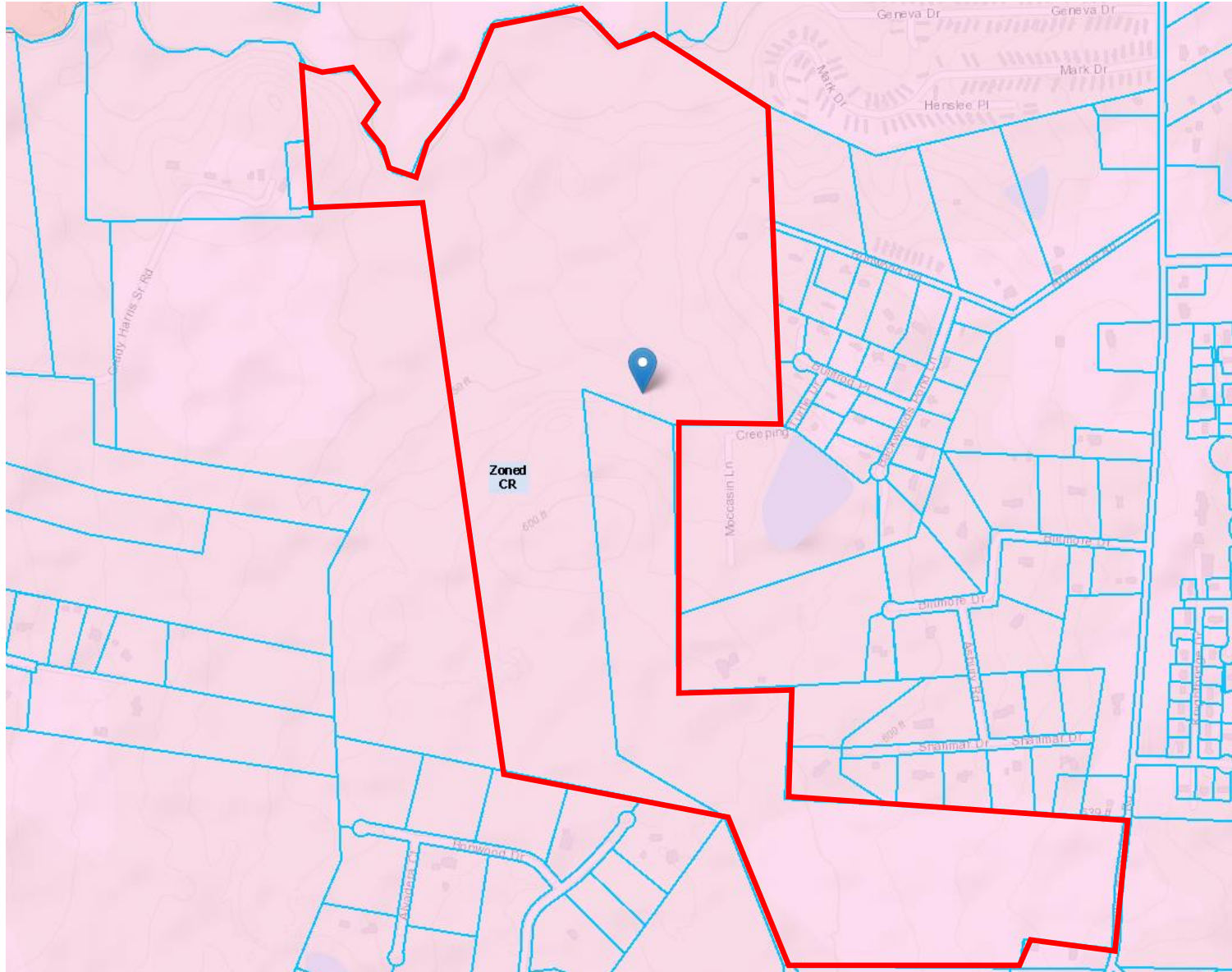
Owner/Agent/Applicant Information

It is understood by all parties hereto that while this application will be carefully considered and reviewed, the burden of providing its need and providing all required evidence rests with the below named petitioner.

I do hereby certify that all information which I have provided for this application is, to the best of my/our knowledge, correct.

12. Property Owner	Bethesda Association LLC	Rocky Investments LLC
Address	600 Park Offices Drive Durham, North Carolina 27709	205 Iveyshaw Road Cary, NC 27519
Phone	919-815-9987	919-815-9987
Fax		
Email:	steve@thescgrp.com	steve@thescgrp.com
Signature		
13. Agent (if any)		
Address		
Phone		
Fax		
Email		
Signature		
14. Applicant (if any)	The CSC Group	
Address	600 Park Offices Drive Durham North Carolina 27709	
Phone	919-815-9987	
Fax		
Email	Steve@thescgrp.com	
Signature		

NOTE: If multiple parcels are involved in a request, property owners must sign an application identifying the individual parcel(s) represented. Each parcel included in the request must be accounted for in the application process for the application to be considered complete.



H2020-07(R) Rezoning and Annexation Request

Parcel Identification Number:
5526-14-5424, 5526-21-2487

Applicant: Timmons Group
Current Zoning: Countryside Residential (CR), County
Requested Rezoning: Conditional Residential Low Density (CZ-RL)

Map Created: July 2021





Town of Harrisburg
Planning and Economic Development Department
Rezoning Staff Report

DATE: July 13, 2021

SUBJECT: McKinley Subdivision

Request H-2020-07-(R): To rezone approximately 193.12 acres from County CR (Countryside Residential) to CZ-RL (Conditional Zoning Residential Low Density) Conservation Subdivision.

Location: The subject properties are located on the western side of Lower Rocky River Road near the intersection of Pioneer Mill Road (PIN 5526-14-5424 and 5526-21-2487)

Applicant: Timmons Group (Chris Todd)

Staff Report Prepared by: Craig Thomas, Senior Planner
Planning and Economic Development Dept.

Neighborhood Meeting: Held February 18, 2021

BACKGROUND:

Area: ±193.121 acres Total

Existing Land Use: Vacant/Single-Family Residential

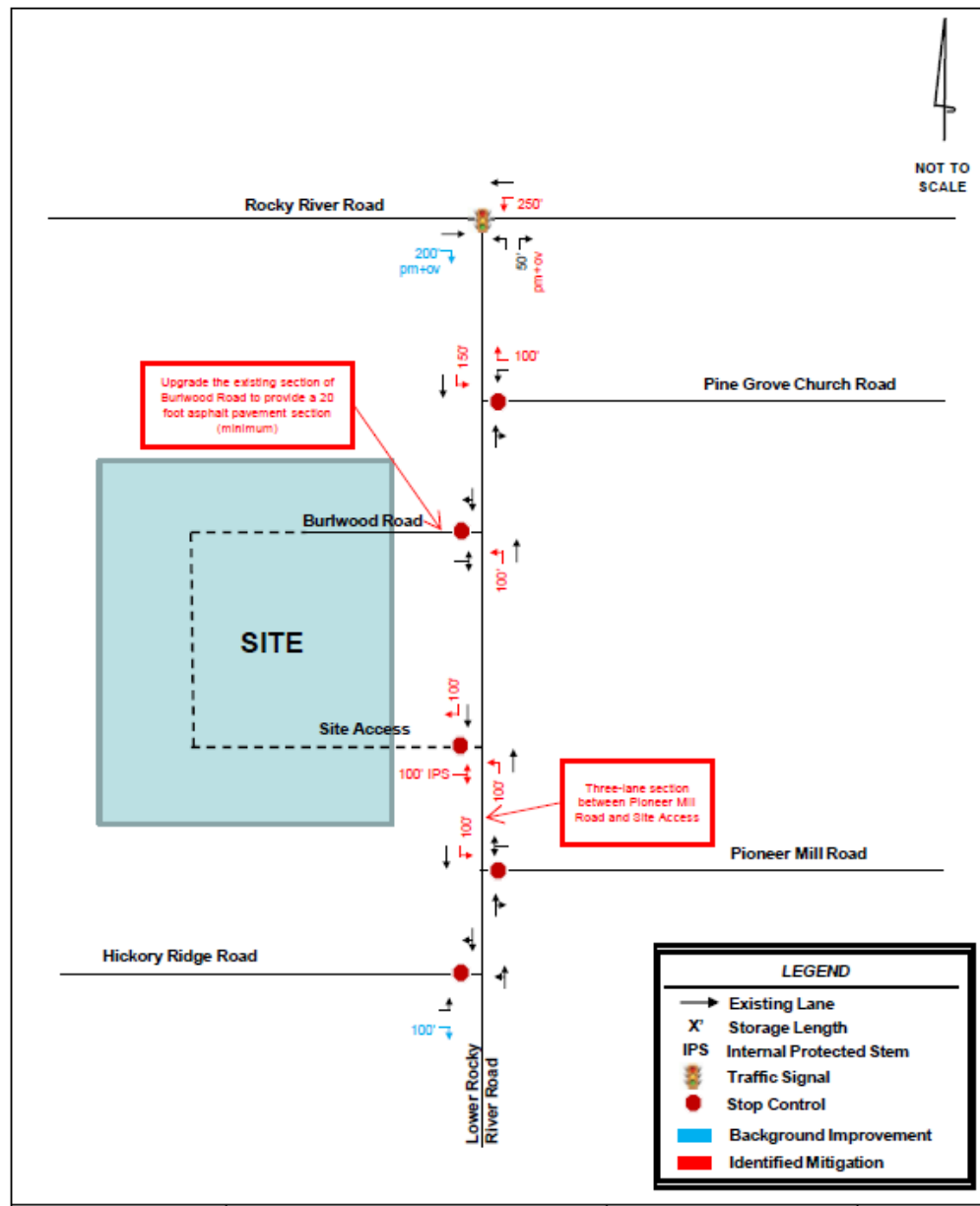
Zoning within 500 feet: North - Countryside Residential (CR), Cabarrus County
South - Countryside Residential (CR), County
East - Countryside Residential (CR), County
West - Countryside Residential (CR), County

Land Uses within 500 feet: North - Single-family Residential, County
South - Single-family Residential, County
East - Single-family Residential, County
West - Single-family Residential, County

APPLICATION SUMMARY:

- The applicant proposes to develop a single-family subdivision with 162 detached units, with a combination of 80' wide lots (138) and 100' wide lots (24) and minimum lot sizes of 1/3rd acre. To achieve this, the applicant is requesting that the property be annexed and rezoned from County CR (Countryside Residential) to CZ-RL (Conditional Zoning Residential Low Density) utilizing Conservation Design guidelines.
- The proposed density of the site is 0.85 dwelling units per acre, the RL district has a maximum density of 2 dwelling units per acre but upon approval of this rezoning, the density will be capped at 0.85 units/acre and the site plan will be attached with the land.
- The applicant is dedicating 4.10 acres of active open space as part of preserved 58 acres overall open space required for Conservation Subdivision. A greenway will be built along the adopted Reedy Creek greenway alignment.
- As a conditional zoning request, the applicant has submitted a site plan along with the request for rezoning, which is attached for your consideration.
- The property is in the County, applicant has also submitted a Petition requesting Annexation for the subject property which is non-contiguous to the current Town of Harrisburg corporate limits.
- The applicant agrees to install the following road improvements per the Traffic Impact Analysis (TIA) completed for the project (see map on the following page):
 - **Lower Rocky River Road and Rocky River Road:**
 - Implementation of permitted-overlap phasing on the northbound right-turn lane.
 - Construction of westbound left-turn lane along Rocky River Road with minimum of 250 feet storage.
 - **Lower Rocky River Road and Pine Grove Church Road:**
 - Construction of westbound right-turn lane along Pine Grove Church Road with minimum of 100 feet storage.
 - Construction of southbound left-turn lane along Lower Rocky River Road with a minimum of 150 feet of storage.
 - **Lower Rocky River Road and Burlwood Road:**
 - Construction of northbound left-turn lane along Lower Rocky River Road with minimum of 100 feet storage.
 - Upgrade the existing section of Burlwood Road to provide a 20 foot asphalt pavement section (minimum).
 - **Lower Rocky River Road and Pioneer Mill Road:**
 - Construction of southbound left-turn lane along Lower Rocky River Road with minimum of 100 feet storage.

- Construction of three-lane section along Lower Rocky River Road between Pioneer Mill Road and the Site Access
- **Lower Rocky River Road and Site Access:**
 - Construction of eastbound approach with one ingress lane and an internal protected stem of 100 feet.
 - Construction of southbound right-turn lane along Lower Rocky River Road with a minimum storage of 100 feet.
 - Construction of northbound left-turn lane along Lower Rocky River Road with minimum of 100 feet storage.
 - Construction of a three-lane section along Lower Rocky River Road between Pioneer Mill Road and Site Access.



APPROVAL CRITERIA:

1. The size of the tract in question;

The subject property is approximately 193.12 acres in size.

2. Whether the proposal conforms with and is in furtherance of the implementation of the goals and policies of the Comprehensive Plan, other adopted plans, and the goals, objectives and policies of the Ordinance;

Per the Unified Development Ordinance, the intent of the proposed district depicted on the submitted site plan is as follows:

***RL:** The RL district is established to provide areas for low density single family uses, with a maximum of two units per acre, and may provide a buffer between agriculture uses and higher density areas of Town. It includes flexible density and minimum lot size requirements in order to allow for market and design flexibility while preserving the neighborhood character and preserve environmentally sensitive areas.*

Per the Harrisburg Area Land Use Plan, the subject property is located in an area designated on the future land use map as **Low Density Residential**. The description of Low Density Residential is as follows:

“This area is characterized by low- to medium-density residential development (up to 3 dwelling units per acre). Single-family detached homes are complemented by natural areas as well as formal and informal open space amenities. Conservation design, which includes more open space in exchange for small minimum lot sizes, may be recommended in locations with sensitive natural resources.”

Based on the description of the Low Density Residential land use classification and the proposed density, the proposed project would meet the intent that has been set for this area in the Land Use Plan.

With regard to the overall goals of the Land Use Plan, **recommendation LU-3** states that the Town should “Balance Development and Conservation Interests” to incentivize conservation design. The proposed development preserves 58 acres of open space and wetlands while providing a greenway and walking trails throughout the neighborhood.

Recommendation LU-7 of the Plan recommends consistency between the Town’s zoning regulations and the adopted Future Land Use Map. A table included as part of this goal establishes the “appropriate” zoning districts to use when making zoning decisions based on the Future Land Use Map. The map, as previously stated, designates this area as Low Density Residential. The table indicates that the RL district is appropriate for this land use classification.

The HALUP identified a potential environmentally significant area on the site, **Reedy Creek Knoll and Beaver Pond**. The site was surveyed to check against any sensitive features and concluded that the conditions of site have changed over time and that the

previously designated area is no longer of significance requiring preservation. Report is attached in the packet.

3. The benefits or detriments for the owner, neighbors and surrounding community;

The benefits to the owner of the property would be that single-family residential development at the proposed density of 0.85 dwelling units per acre could be achieved under the proposed zoning and annexation allows to tap into town offered services.

As with most developments, the addition of residential units increase trip generations. Certain intersection improvements and road widening have been required as part of the Traffic Impact Analysis as a means to mitigate and minimize the impact of additional trip generations in the area associated with this development.

4. Whether the proposed request is in compliance with the adequate public facilities criteria;

a. Utilities:

Sewer is available along the back of the property on Reedy Creek, Water will need to be extended to the site. Any utility line extensions or upgrades necessary to serve this development will be the responsibility of the developer.

b. Transportation:

A TIA was completed based on the size of the development and the anticipated amount of traffic generated by the project. All traffic improvements are detailed and depicted on a map in the Application Summary (above) and will be completed and delivered by the proposed project, as per that TIA.

c. Safety and Sanitation Services:

Adequate police, fire, and sanitation services are available for the proposed use, and will be provided upon annexation.

d. Schools:

Per Cabarrus County, the APF Ordinance for schools is currently not being enforced after a ruling by the NC Supreme Court. However, Cabarrus County Schools does still review the capacity of the K-12 schools that this development will feed into and provides future capacity numbers based on the units proposed. For this site, Cabarrus County has provided the following information:

Current Capacity:

Elementary (Patriots ES)	<u>113%</u>
Middle (CC Griffin MS) -	<u>88%</u>
High (Hickory Ridge HS) -	<u>111%</u>

Future Capacity Based on Unbuilt Lots and Including this Request:

Elementary (Patriots ES)	<u>121%</u>
Middle (CC Griffin MS) -	<u>90%</u>
High (Hickory Ridge HS) -	<u>113%</u>

As per Cabarrus County School, the Single-family homes in this development will generate upon full buildout an additional 63 elementary students, 32 middle school students, and 42 high school students.

5. The relationship of the uses envisioned under the new zoning and the uses currently present in adjacent tracts. The Commission shall consider the following:

- a. Whether the proposed zoning is compatible with the surrounding area or whether there will be adverse impacts on the capacity or safety of the portion of street network influenced by the rezoning, parking problems, or environmental impacts that the new use will generate such as excessive storm water runoff, water, air or noise pollution, excessive nighttime lighting or other nuisances;**

The proposed single-family development and density of the proposed development (0.85 dwelling units per acre) is compatible with surrounding land uses.

- b. Any change of character in the area due to installation of public facilities, other zoning changes, new growth changes, deterioration, and development;**

Like all other development activity in this area, the development of this land would convert former vacant land into residential neighborhoods, while preserving appropriate area for open space.

- c. The zoning districts and existing land uses of the surrounding properties;**

The areas around this property are generally zoned for low to medium density residential use. Existing land use patterns in the area typically consist of low density residential neighborhoods and vacant forested land and land previously used for agricultural purposes.

- d. Whether the subject property is suitable for the uses to which it has been restricted under the existing zoning classification;**

The property is suitable for the uses which it has been restricted to under the existing zoning classification.

- e. Whether the rezoning is compatible with the adjacent neighborhood, especially concerning neighborhood stability and character;**

As previously mentioned, the specific use of the property, single family detached homes, is consistent with surrounding neighborhoods and aligns with Harrisburg Area Land Use Plan (HALUP).

- f. The length of time the subject property has remained vacant as zoned (if applicable);**

This property has been vacant.

- g. Whether there is an adequate supply of land available in the subject area and the surrounding community to accommodate the zoning and community needs;**

Land supply is not a direct issue in this area.

- 6. Whether the existing zoning was in error at the time of adoption.**

The existing zoning was not in error at the time of adoption.

Furthermore, as a Conditional Zoning request, the Board must consider the following criteria:

- 7. The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and consistency with the purposes, goals, objectives, and policies of the current Land Use Plan.**

The rezoning application to RL district to the property, with the proposed density limitation, is consistent with the density and lot size standards established for the base RL Zoning District in the Unified Development Ordinance and Low Density Residential land use classification in the Land Use Plan.

The development proposal accompanying the rezoning request would restrict permitted uses to single family detached residences, which are appropriate in this area.

- 8. The use(s) requested are among those listed as an eligible permitted or conditional use in the general use district as included in the rezoning request.**

The applicant is seeking for the following uses to be allowed in this Conditional Zoning District:

- Single-Family Detached Residential; this use is allowed in the RL District.

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

The applicant intends to work collaboratively with both Harrisburg town staff and the NC Department of Transportation in establishing appropriate intersection improvements for

the development. Improvements include along Lower Rocky River Road frontage, Burlwood and nearby intersection improvements.

Landscaping buffers shown are adequate to meet the needs of the adjacent properties, and active open space is designated as part of the subdivision.

10. The use limitations and conditions as proposed and/or imposed for the requested district can reasonably be implemented and enforced for the subject property.

The conditions proposed and imposed for this district can be reasonably implemented on this site.

11. When implemented the proposed and/or imposed use limitations and conditions will mitigate specific land development issues that would likely result if the subject property were zoned to accommodate all the uses and the minimum standards of the corresponding general zoning district. If any standards are proposed that are different from the underlying zoning district, the applicant must clearly demonstrate that the overall resultant project is greater than that which is typically allowed by the general district.

All proposed conditions recommended by staff are to bring the site into conformance with applicable local and state regulations.

12. The applicant has agreed to accept the use limitations and conditions as proposed and/or imposed for the requested district.

The applicant will need to agree to all conditions listed in this staff report. Any additional conditions placed on this property will need the acceptance of the applicant before a decision can be made on this application.

13. For an approval, the Board must adopt a consistency statement that the amendment being considered is either consistent or inconsistent with the adopted land use plan and that the Board considers the action to be reasonable and in the public interest.

The Planning and Zoning Board will need to adopt a consistency statement when a recommendation or decision is made on this item.

APPROVAL WITH CONDITIONS:

The proposal is a conditional re-zoning request. Conditions may be imposed on the zoning action; staff recommends that the following conditions be placed on this project. Applicant agrees to the following:

1. Applicant agrees to obtain any and all applicable local, state, and federal permits required for development before any development activity can take place.
2. Applicant agrees to restrict primary cladding materials for all residential buildings to masonry or similar products; vinyl siding will not be used.
3. Applicant agrees that there will be no exposed concrete foundations and that appropriate cladding must extend to the ground level on all sides of the homes.

4. Applicant agrees to install all required improvements as required by the final approved Traffic Impact Analysis.
5. Applicant agrees to provide a minimum 8 foot landscape easement (4 feet on each side of the property line) for residential lots sharing a rear property line.
6. Applicant agrees to construct the portion of town adopted Reedy Creek Greenway along the entire northern property line.
7. Applicant agrees that all ponds shall be wet detention ponds with fountains. Ponds shall be designed such that there is a minimum depth of 10' over at least 25% of the permanent pool area.
8. Applicant agrees to pave the existing gravel driveway on an existing easement that runs parallel along the proposed lots 34 through 53 and provides access to parcel 55262174560000 outside this proposed subdivision. No vehicle parking allowed on the easement.
9. Applicant agrees to the mitigation or replacement of heritage trees if damaged during construction, in accordance with the Town of Harrisburg Unified Development Ordinance.
10. Applicant agrees mailbox clusters shall meet ADA Standards at a minimum.
11. All streets should be to the Town of Harrisburg Engineering Design standards, alternate pavement schedule is not allowable. Roadways cross sections will be reviewed and approved at the construction document phase.

RECOMMENDATION:

With the proposed site plan and conditions proposed, the rezoning request is consistent with the Harrisburg Area Land Use Plan (HALUP) and the Unified Development Ordinance (UDO) standards. Planning and Zoning Department staff supports approval of the rezoning request with conditions.

ZONING CODE SUMMARY:

PROPERTY OWNER: BETHESDA INVESTMENTS, LLC
600 PARK OFFICES DRIVE, DURHAM, NC 27709

ROCKY INVESTMENTS, LLC
205 IVEYSHAW ROAD, CARY, NC 27519

TOTAL SITE ACREAGE: 193.121± ACRES

PROPERTY TO BE SOLD TO MATTHEW GREEN (PARCEL NO. 55262262130000): ± 2.60 ACRES

REZONING SITE ACREAGE: 190.521± ACRES

TAX PARCEL #S: 5526145424 & 5526212487

EXISTING ZONING: CR (COUNTY)

PROPOSED ZONING: CZ-RL CONSERVATION SUBDIVISION

EXISTING USE: VACANT

PROPOSED USE: SINGLE FAMILY - DETACHED

DENSITY PROVIDED: 138 - 80' LOTS
24 - 100' LOTS
162 LOTS (0.85 DU/A) LOW DENSITY

FRONT SETBACK: 25' (MIN.)

REAR SETBACK: 40' (MIN.)

SIDE SETBACK: 10' (MIN.)

CORNER SETBACK: 25' (MIN.)

MIN. LOT WIDTH: 80'

MIN. LOT DEPTH: VARIES

MIN. LOT SIZE: 14,520 SF (± AC)

REQUIRED CONNECTIVITY RATIO: 1.40

PROVIDED CONNECTIVITY RATIO: 1.50

LINKS: 18

NODES: 12

TOTAL SITE AREA = 190.521± ACRES

PERIMETER BUFFER = 15.39± ACRES

ROAD RIGHT-OF-WAY AREA = 16.43± ACRES

RESIDENTIAL LOT AREA = 80.94± ACRES

EASEMENT AREA = 4.85± ACRES

FLOODWAY AREA = 10.48± ACRES

INACCESSIBLE SLOPES = 0.13± ACRES

STORMWATER DETENTION AREA = 4.30± ACRES

PROVIDED OPEN SPACE = 58.00± ACRES

(TOTAL SITE AREA - PERIMETER BUFFER - RIGHT-OF-WAY EASEMENTS - FLOODWAY - INACCESSIBLE SLOPES - STORMWATER DETENTION AREA. OPEN SPACE INCLUDES 19.26 AC FLOODPLAIN AREA.)

* PROVIDED ACREAGES AND PERCENTAGES MAY BE MODIFIED DURING CONSTRUCTION DOCUMENT PROCESS AS LONG AS TOWN ORDINANCE REQUIREMENTS ARE MET.

OPEN SPACE SUMMARY:

REQUIRED:

TOTAL OVERALL OPEN SPACE: 30% OF TOTAL SITE AREA (190.521 x 0.30 = 57.16± ACRES)

ACTIVE OPEN SPACE: 0.025 AC / LOT (0.025 x 162 = 4.05)

PUBLIC OPEN SPACE: 1/35 AC / LOT (1/35 x 162 = 4.62 AC)

PROVIDED:

TOTAL OVERALL OPEN SPACE: 58.00± ACRES

* 19.26± AC. INSIDE FLOODPLAIN BUT ONLY COUNTING 14.29± AC. OF AREA TO LIMIT TO 25.0% OF REQUIRED OPEN SPACE

* 43.71± AC. OUTSIDE FLOODPLAIN

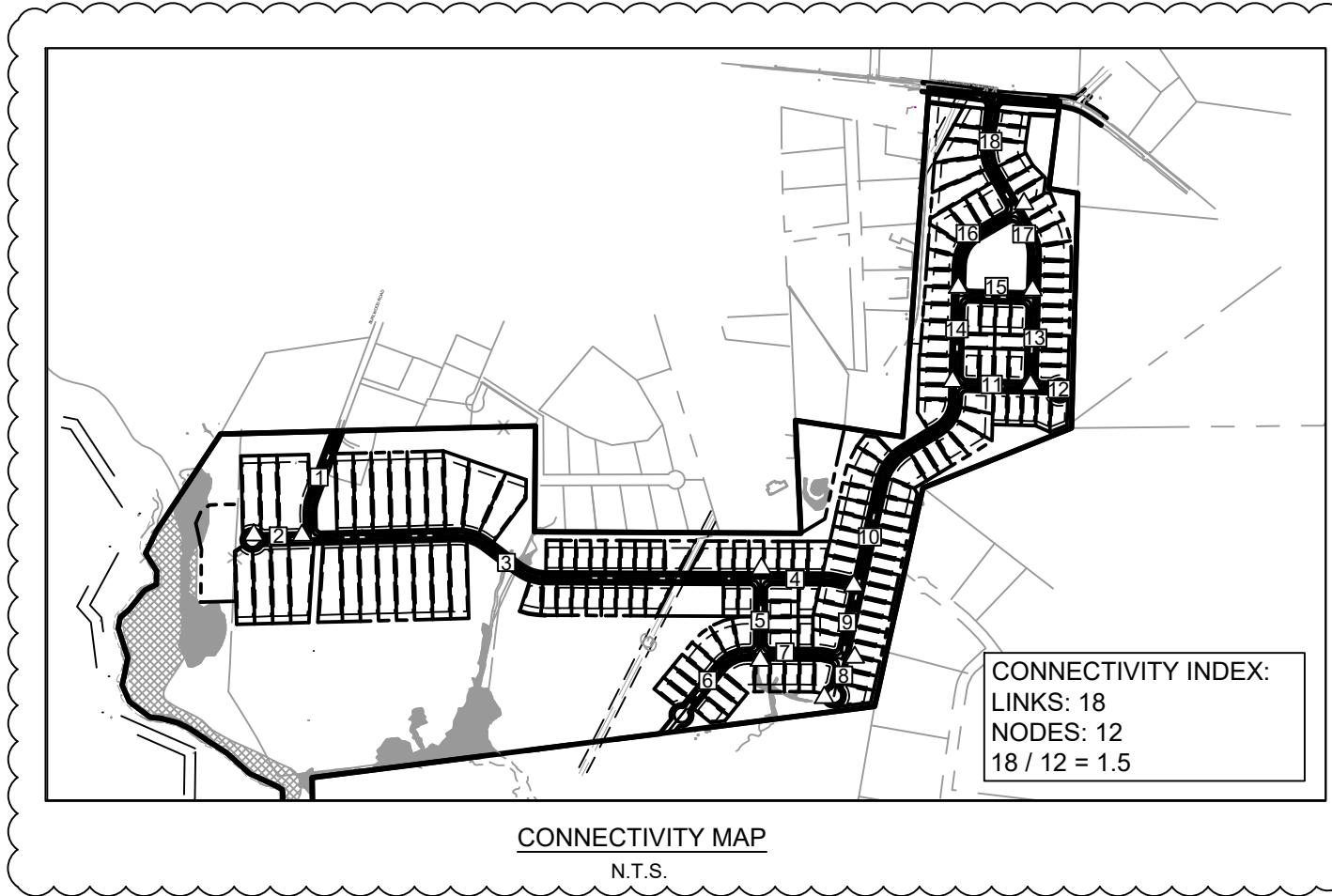
ACTIVE OPEN SPACE: 4.10± ACRES

* 2.8± AC. AMENITY SITE

* 1.3± AC. ACTIVITY FIELD

* 0.20± AC. NATURAL TRAILS

* PROVIDED ACREAGES AND PERCENTAGES MAY BE MODIFIED DURING CONSTRUCTION DOCUMENT PROCESS AS LONG AS TOWN ORDINANCE REQUIREMENTS ARE MET.



BLOCK LENGTH SUMMARY:

ROAD A (LOWER ROCKY RIVER RD TO ROAD B): 680'

ROAD A (ROAD B TO ROAD C): 504'

ROAD A (ROAD C TO ROAD D): 495'

ROAD B (ROAD A TO ROAD C): 629'

ROAD B (ROAD C TO ROAD D): 495'

ROAD B (ROAD D TO ROAD E): 1310'

ROAD B (ROAD E TO ROAD F): 418'

ROAD B (ROAD F TO CUL-DE-SAC): 249'

ROAD C (ROAD A TO ROAD B): 415'

ROAD C (ROAD A TO ROAD D): 415'

ROAD D (ROAD A TO CUL-DE-SAC): 199'

ROAD D (ROAD B TO ROAD G): 545'

ROAD E (ROAD G TO STREAM CENTERLINE): 1,424'

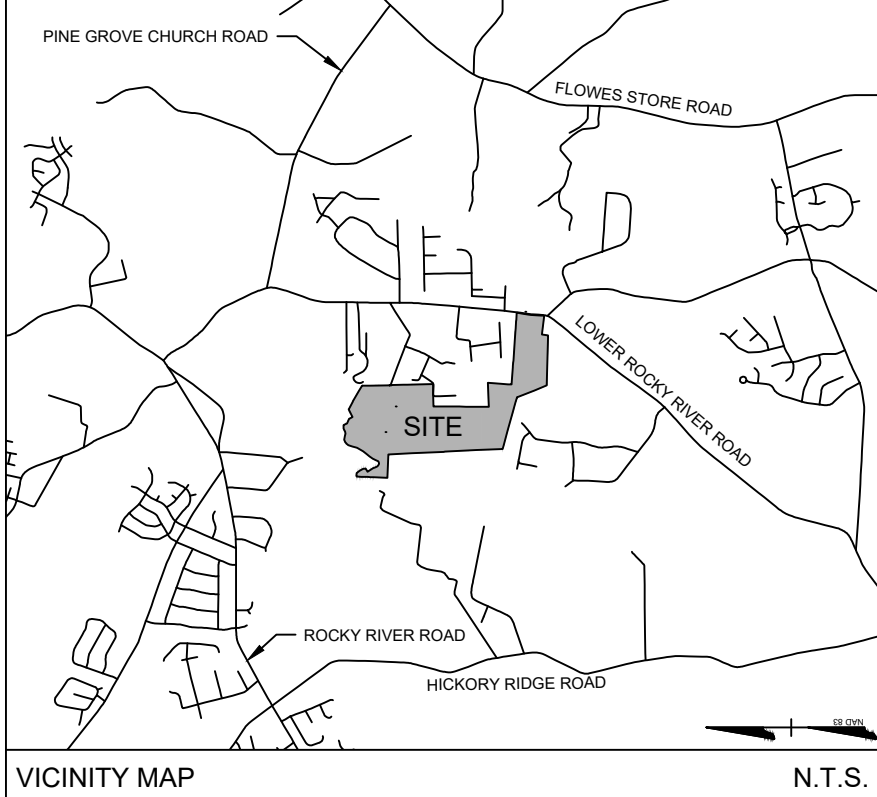
ROAD E (STREAM CENTERLINE TO BURLWOOD): 1,140'

ROAD E (BURLWOOD RD TO CUL-DE-SAC): 363'

ROAD F (ROAD B TO ROAD G): 466'

ROAD F (ROAD G TO CUL-DE-SAC): 627'

ROAD G (ROAD E TO ROAD F): 418'



S:\10445805-Lower Rocky River Rd (CSC Group)\DWG\Sheet\245805C-REZONING PLAN.dwg [Plotted on 7/13/2021 3:08 PM] by Andrew Allison

THIS DRAWING PREPARED AT THE
CHARLOTTE OFFICE
610 E. Monroed Street, Suite 250 | Charlotte, NC 28202
TEL 704-602-8600 FAX 704-576-1076 www.timmons.com

CSC GROUP
600 PARK OFFICES DRIVE, SUITE 372
DURHAM, NORTH CAROLINA 27709

REVISION DESCRIPTION	
DATE	REVISION
11/13/2020	REVISED PER TOWN COMMENTS
6/29/2021	REVISED PER TOWN COMMENTS
07/13/2021	REVISED PER TOWN COMMENTS

DATE	9/15/2020
DRAWN BY	JH
DESIGNED BY	JTH
CHECKED BY	JTH
SCALE	1" = 200'

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

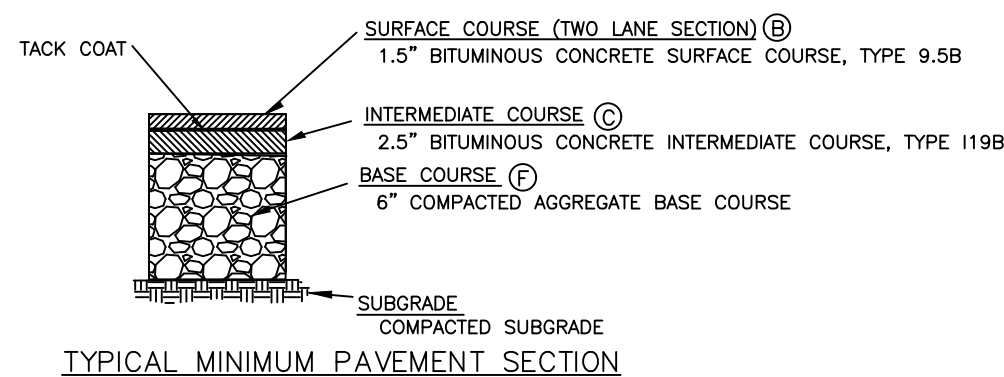
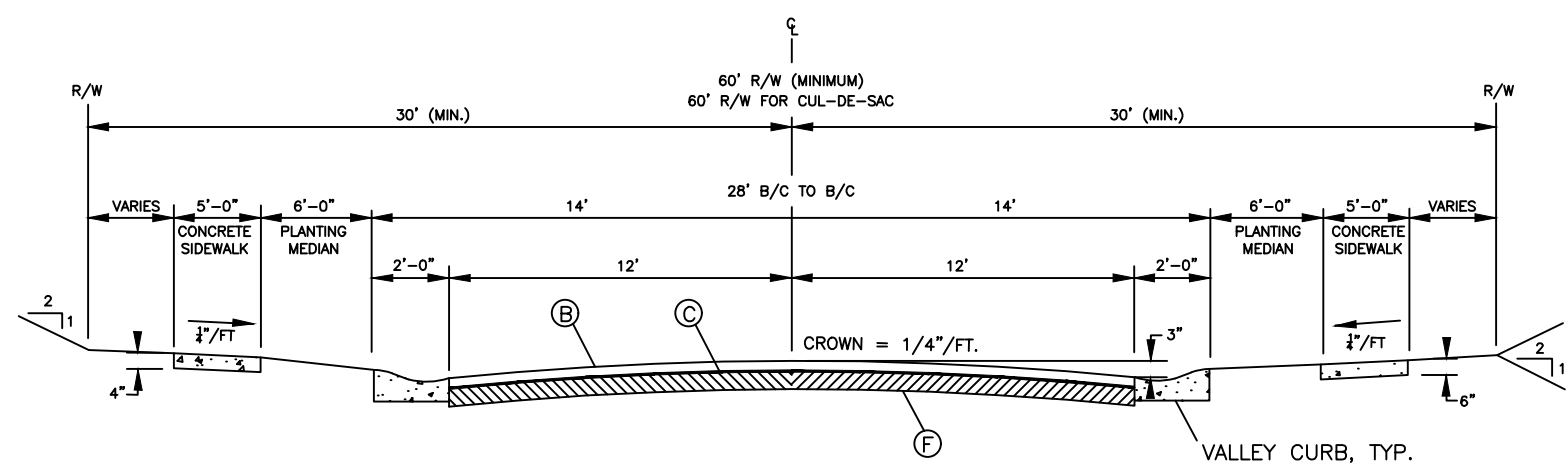
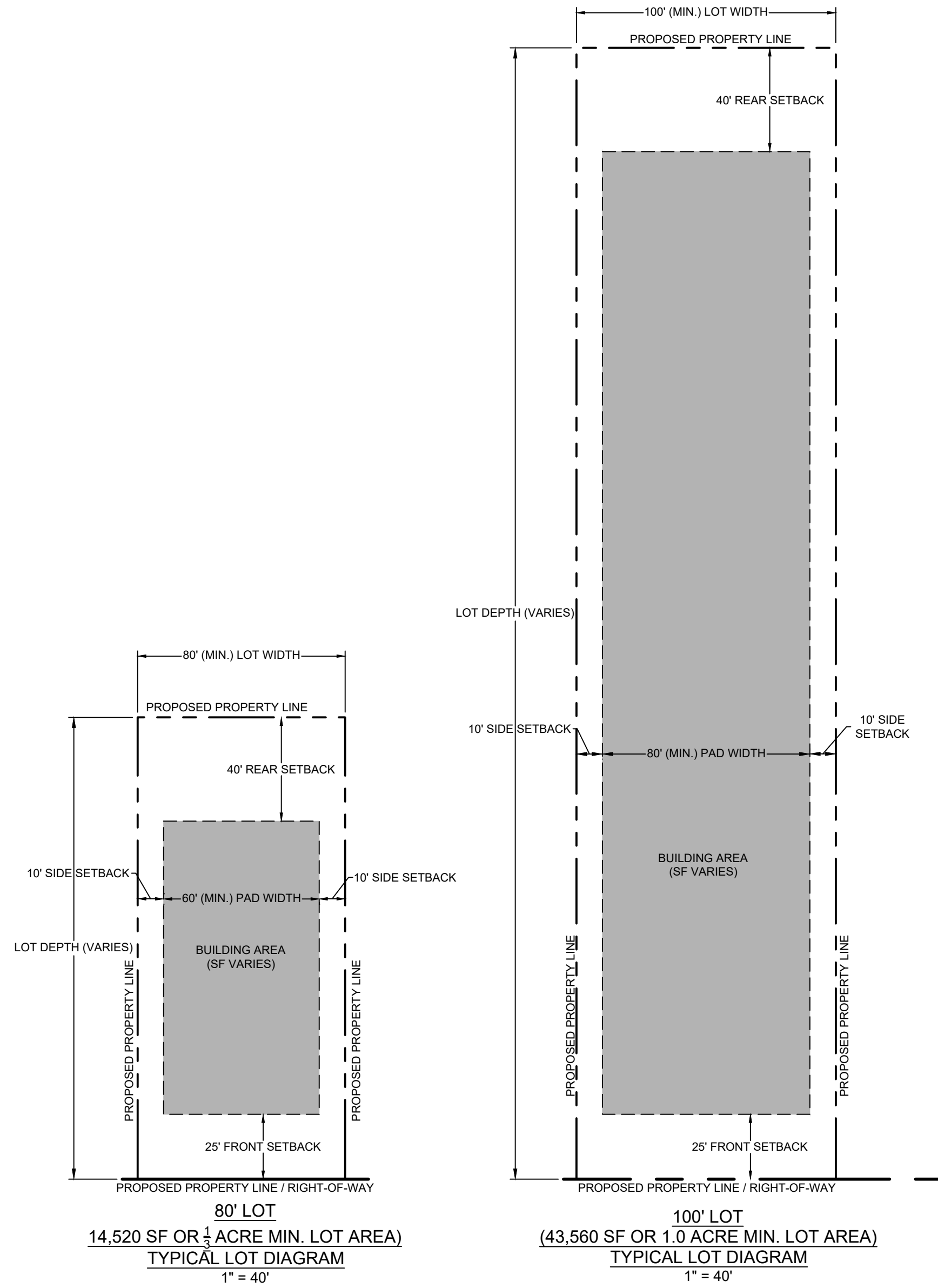
MCKINLEY SUBDIVISION
HARRISBURG, NORTH CAROLINA

REZONING SITE PLAN

JOB NO.	45805
SHEET NO.	RZ 1.0

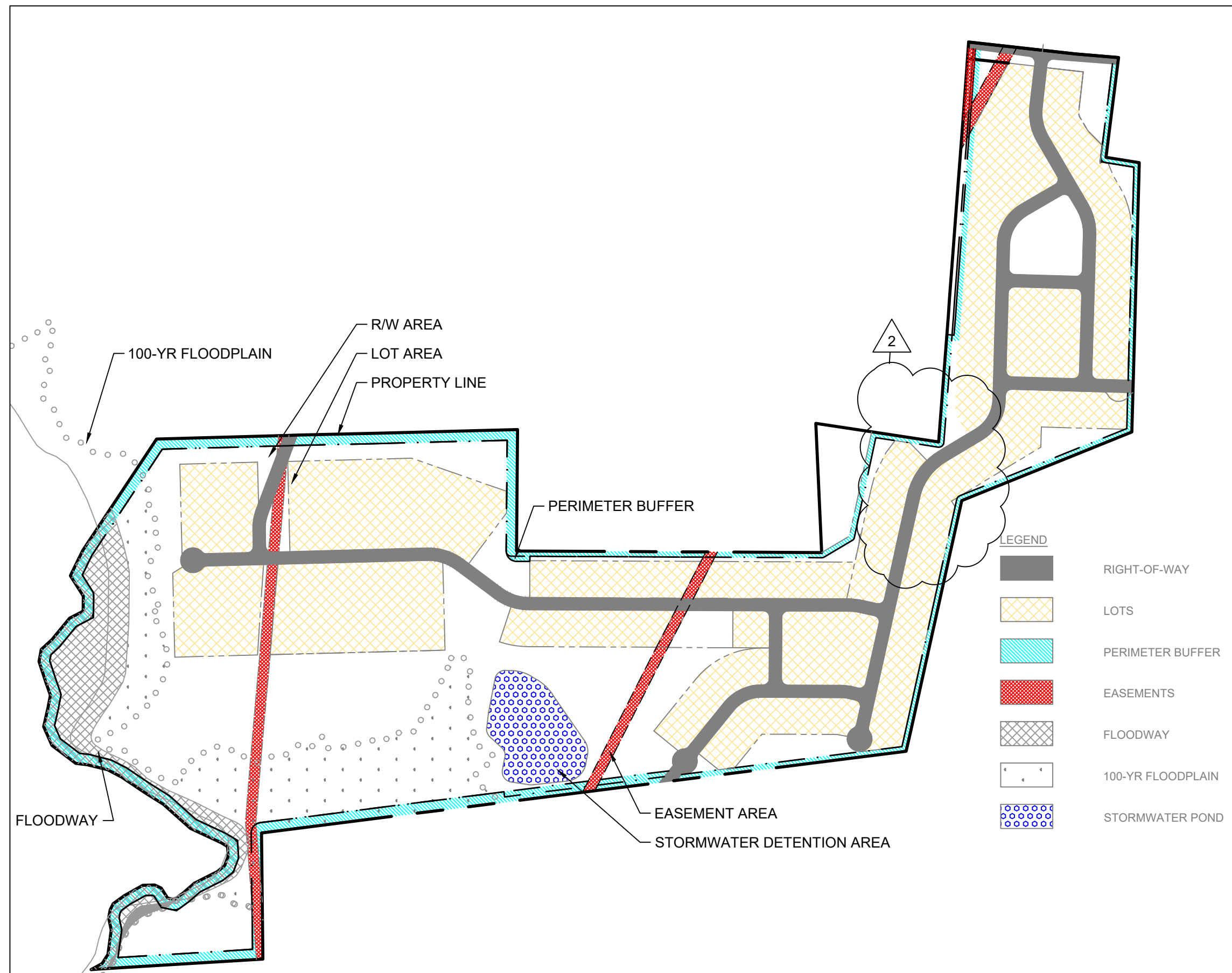
These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.

S:\10445805-Lower Rocky River Rd (CSC Group)\DWG\Sheet\2145805C-REZONING PLAN.dwg [Plotted on 7/13/2021 3:08 PM] by Andrew Allison



HARRISBURG UDO, APPENDIX C, DRAWING NO. 5

ADJACENT PROPERTY OWNERS				
LOT	PARCEL NUMBER	PROPERTY OWNER	ADDRESS	
A	55262477710000	BLUE WATER INVESTMENTS OF THE CAROLINAS, LLC	PO BOX 507, CONCORD, NC 28026	
B	55262461790000	GESSLER ROBERT J & GESSLER CHRISTINA	1413 BURLWOOD RD, CONCORD, NC 28025	
C	55262368550000	FREEMAN BRANDON A ESTATE & FREEMAN EVELYN L	9055 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
D	55262365670000	FREEMAN BRANDON A ESTATE & FREEMAN EVELYN L	9055 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
E	55262259730000	FREEMAN BRANDON A ESTATE & FREEMAN EVELYN L	9055 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
F	55262262130000	GREEN MATTHEW SCOTT	1446 BILTMORE DR, CONCORD, NC 28025	
G	55262177690000	DORTON STEVEN A	9800 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
H	55262174560000	DORTON STEVEN A	9800 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
I	55263104750000	TODD JOHN KEVIN & TERRI M	813 FREEMAN DR, CONCORD, NC 28025	
J	55263134130000	WISEMAN MICHAEL H & SHIRLEY K	1311 SHALIMAR DR, CONCORD, NC 28025	
K	55263154700000	OVERMAN CAROLYN H	1305 SHALIMAR DR, CONCORD, NC 28025	
L	55263184210000	GRIFFIN BOYD D & NAN C	1211 SHALIMAR DR, CONCORD, NC 28025	
M	55264104680000	DAVIES ANGELA	1203 SHALIMAR DR, CONCORD, NC 28025	
N	55264113610000	DAVIES ANGELA	1203 SHALIMAR DR, CONCORD, NC 28025	
O	55264132590000	CAWLEY MARIE	1120 BOTTLE BRUSH LN, HARRISBURG, NC 28075	
P	55264132590000	CAWLEY MARIE	1120 BOTTLE BRUSH LN, HARRISBURG, NC 28075	
Q	55264277920000	HUNTLEY F W CONSTRUCTION CO, INC	PO BOX 690725, CHARLOTTE, NC 28227	
R	55265185070000	HUNTLEY F W CONSTRUCTION CO, INC	PO BOX 690725, CHARLOTTE, NC 28227	
S	55264063830000	HARPER ANTHONY FRANK	1233 NC HWY 24-27 W, MIDLAND, NC 28107	
T	55264004840000	THOMPSON JAMES C & THOMPSON TRACY A	9910 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
U	55264001270000	JOHNSON CHAD & JOHNSON LAURA	9982 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
V	55253947490000	JONES RICHARD E & JONES LARRY E	10110 PIONEER MILL RD, CONCORD, NC 28025	
W	55252992220000	DEMPSTER BRANDON A & DEMPSTER SUSAN S	10200 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
X	55252901390000	STALLINGS MARGARET ANN	3550 STALLINGS RD, HARRISBURG, NC 28075	
Y	55261180350000	WOOD GRAY FRANKLIN	9705 BLOSSOM DR, CONCORD, NC 28025	
Z	55261078150000	STONE MICHAEL A & TRINKA WESTBROOK	800 GOLF COURSE RD, COLUMBUS, NC 28722	
AA	55261142830000	MONTGOMERY JEFFREY D & MONTGOMERY ANNA C	9712 BLOSSOM DR, CONCORD, NC 28025	
BB	55261112470000	MONTGOMERY JEFFREY D & MONTGOMERY ANNA C	9712 BLOSSOM DR, CONCORD, NC 28025	
CC	55260173460000	WHITLEY CURTIS L & WHITLEY DEBRA H	1825 BONWOOD DR, CONCORD, NC 28025	
DD	55260344060000	HARRIS MARK LEE ESTATE	C/O JAMARIAN MONROE, 1029 BLUE LARKSPUR AVE, WAKE FOREST, NC 27587	
EE	55260407970000	GREE TREE SERVICING LLC, FKA CONSECO FINANCE SERV CORP	160 MINE LAKE CT, STE 200, RALEIGH, NC 27615	
FF	55169532950000	HARRIS G C ESTATE & HARRIS NINA ESTATE	C/O SHARAN H RANKIN, PO BOX 1673, CHANDLER, AZ 85244	
GG	55261694360000	HARRIS JOE B & HARRIS LINDA	1643 PEMBROOK RD, HARRISBURG, NC 28075	
HH	55263651500000	FREEMAN WILLIE A	8776 LOWER ROCKY RIVER RD, CONCORD, NC 28025	
II	55263554150000	ATHENA CEDAR LLC & A DELAWARE LLC	98 MILL PLAIN RD, STE 3C, DANBURY, CT 06811	



OPEN SPACE SUMMARY MAP

GENERAL PROVISIONS:

- SITE LOCATION:** THESE DEVELOPMENT STANDARDS FORM A PART OF THE CONDITIONAL REZONING SITE PLAN ASSOCIATED WITH THE CONDITIONAL REZONING SITE PLAN FILED BY CSC GROUP ("PETITIONER") TO ACCOMMODATE THE DEVELOPMENT OF THE PROPOSED RESIDENTIAL SUBDIVISION ON APPROXIMATELY 193.12 ACRE SITE LOCATED ALONG LOWER ROCKY RIVER ROAD (THE "SITE").
- ZONING DISTRICTS / ORDINANCE:** DEVELOPMENT OF THE SITE WILL BE GOVERNED BY THE REZONING SITE PLAN AS WELL AS THE APPLICABLE PROVISIONS OF THE TOWN OF HARRISBURG ZONING ORDINANCE (THE "ORDINANCE").
- GRAPHICS AND ALTERATIONS:** THE SCHEMATIC DEPICTIONS OF THE STREETS, LOTS, SIDEWALKS, AMENITY CENTER, OPEN SPACE AND OTHER SITE DEVELOPMENT ELEMENTS (COLLECTIVELY THE "DEVELOPMENT / SITE ELEMENTS") SET FORTH ON THE REZONING SITE PLAN SHOULD BE REVIEWED IN CONJUNCTION WITH THE PROVISIONS OF THESE DEVELOPMENT STANDARDS. THE LAYOUT, LOCATIONS, SIZES AND FORMULATIONS OF THE DEVELOPMENT / SITE ELEMENTS DEPICTED ON THE REZONING SITE PLAN ARE GRAPHIC REPRESENTATIONS OF THE DEVELOPMENT / SITE ELEMENTS PROPOSED. CHANGES TO THE REZONING SITE PLAN NOT ANTICIPATED BY THE REZONING SITE PLAN WILL BE REVIEWED AND APPROVED.

SINCE THE PROJECT HAS NOT UNDERGONE THE DESIGN DEVELOPMENT AND CONSTRUCTION PHASES, IT IS INTENDED THAT THIS REZONING SITE PLAN PROVIDE FOR FLEXIBILITY IN ALLOWING SOME ALTERATIONS OR MODIFICATIONS FROM THE GRAPHIC REPRESENTATIONS OF THE DEVELOPMENT / SITE ELEMENTS. THEREFORE, THERE MAY BE INSTANCES WHERE MINOR MODIFICATIONS WILL BE ALLOWED BY THE TOWN OF HARRISBURG WITHOUT REQUIRING THE ADMINISTRATIVE AMENDMENT PROCESS.

THE PLANNING DIRECTOR WILL DETERMINE IF SUCH MINOR MODIFICATIONS ARE ALLOWED PER THIS AMENDED PROCESS, AND IF IT IS DETERMINED THAT THE ALTERATION DOES NOT MEET THE CRITERIA DESCRIBED ABOVE, THE PETITIONER SHALL THEN FOLLOW THE ADMINISTRATIVE AMENDMENT PROCESS.

- NUMBER OF BUILDINGS PRINCIPAL AND ACCESSORY:** THE TOTAL NUMBER OF PRINCIPAL BUILDINGS TO BE DEVELOPED SHALL NOT EXCEED 162. ACCESSORY BUILDINGS AND STRUCTURES LOCATED ON THE SITE SHALL NOT BE CONSIDERED IN ANY LIMITATION ON THE NUMBER OF BUILDINGS ON THE SITE. ACCESSORY BUILDINGS AND STRUCTURES WILL BE CONSTRUCTED UTILIZING SIMILAR BUILDING MATERIALS, COLORS, ARCHITECTURAL ELEMENTS AND DESIGNS AS THE PRINCIPAL BUILDING LOCATED ON THE SITE. ACCESSORY STRUCTURES AND BUILDINGS INCLUDE, BUT ARE NOT LIMITED TO, A MAIL KIOSK, DUMPSTER ENCLOSURES, GAZEBOs, TRELLISES, STORAGE BUILDINGS, CLUBHOUSE, CABANA.

PERMITTED USES & DEVELOPMENT AREA LIMITATION:

- THE SITE MAY BE DEVELOPED WITH UP TO 162 SINGLE FAMILY DETACHED LOTS, TOGETHER WITH ACCESSORY USES ALLOWED IN THE CZ-RL CONSERVATION SUBDIVISION ZONING DISTRICT.
- THE PETITIONER AGREES TO OBTAIN ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR DEVELOPMENT BEFORE ANY DEVELOPMENT ACTIVITY CAN OCCUR.

PLANNING CONDITIONS:

- MAILBOX CLUSTERS SHALL MEET MINIMUM ADA STANDARDS.
- THE PETITIONER AGREES TO CONSTRUCT THE PORTION OF THE REEDY CREEK GREENWAY ALONG THE NORTHERN PROPERTY FRONTAGE.
- THE PETITIONER AGREES TO PROVIDE A MINIMUM 8 FOOT LANDSCAPE EASEMENT (4 FOOT MINIMUM ON EACH LOT) FOR RESIDENTIAL LOTS SHARING A REAR PROPERTY LINE.
- APPLICANT AGREES TO HAVE A DETAIL PLANTING/LANDSCAPE PLAN BE REVIEWED AND APPROVED DURING THE PRELIMINARY PLAT AND/OR CONSTRUCTION DOCUMENT REVIEW PHASE.

ARCHITECTURAL CONDITIONS:

- EXPPOSED CONCRETE FOUNDATIONS ARE NOT PERMITTED. FOUNDATIONS SHALL BE VENEERED TO GROUND LEVEL ON ALL SIDES OF THE HOME.
- EXTERIOR BUILDING MATERIALS USED ON PRINCIPLE BUILDINGS SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING: BRICK, STONE, PRECAST MASONRY PRODUCTS, SYNTHETIC STONE, CEMENT FIBER BOARD, STUCCO, DECORATIVE BLOCK, WOOD AND OTHER MATERIALS ALLOWED BY THE TOWN OF HARRISBURG ORDINANCE. VINYL SIDING WILL NOT BE USED EXCEPT ON SOFFITS, WINDOWS AND OTHER ACCESSORY FEATURES.

ACCESS AND TRANSPORTATION CONDITIONS:

- ACCESS TO THE SITE WILL BE FROM LOWER ROCKY RIVER ROAD AND BURLWOOD ROAD IN THE MANNER GENERALLY DEPICTED ON THE REZONING SITE PLAN.
- THE PLACEMENT AND CONFIGURATION OF THE VEHICULAR ACCESS POINTS IS SUBJECT TO MINOR MODIFICATIONS REQUIRED TO ACCOMMODATE FINAL SITE ENGINEERING AND ANY ADJUSTMENTS REQUIRED FOR APPROVAL BY NCDOT AND/OR THE TOWN OF HARRISBURG IN ACCORDANCE WITH APPLICABLE PUBLISHED STANDARDS.
- THE ALIGNMENT OF THE INTERNAL VEHICULAR CIRCULATION MAY BE MODIFIED BY THE PETITIONER TO ACCOMMODATE CHANGES IN LOT CONFIGURATIONS, TRAFFIC PATTERNS, PARKING LAYOUTS AND ANY ADJUSTMENTS REQUIRED FOR APPROVAL BY THE TOWN OF HARRISBURG IN ACCORDANCE WITH PUBLISHED STANDARDS.
- ALL STREETS AND PAVEMENT SCHEDULES SHOULD BE DESIGNED TO TOWN OF HARRISBURG ENGINEERING STANDARDS. ROADWAY CROSS-SECTIONS WILL BE REVIEWED AND APPROVED DURING THE CONSTRUCTION DOCUMENT PHASE.
- STOP SIGN LOCATIONS WILL BE DETERMINED BY A NORTH CAROLINA LICENSED PROFESSIONAL ENGINEER AND REVIEWED BY THE TOWN OF HARRISBURG ENGINEERING STAFF FOR APPROVAL DURING THE CONSTRUCTION DOCUMENT PHASE.
- ROAD IMPROVEMENT REQUIREMENTS AS SPECIFIED BY THE FINAL APPROVED TRAFFIC IMPACT ANALYSIS WILL BE INSTALLED. THE CONSTRUCTION PHASING OF THE ROAD IMPROVEMENTS ARE SUBJECT TO REVIEW AND APPROVAL BY THE TOWN OF HARRISBURG AND NCDOT.
- THE PETITIONER SHALL COORDINATE WITH CABARRUS COUNTY E911 ADDRESSING COORDINATOR ON PROPOSING PROJECT NAME AND STREET NAMES.

BUFFERS/TRAILS:

- A 50' TYPE "D" BUFFER IS PROVIDED ADJACENT TO THE PERIMETER OF THE SUBJECT PROPERTY. BUFFER REQUIREMENTS MAY BE MET WITH EXISTING VEGETATION AS ALLOWED BY THE TOWN'S PUBLISHED ORDINANCE STANDARDS. THE TOWN'S ORDINANCE ALLOWS THE BUFFER TO BE REDUCED TO 25' IF A BERM IS PROVIDED. THE HEIGHT AND SIDE SLOPES OF THE BERM ARE DEPENDENT ON THE EXISTING GRADE AND WILL BE DETERMINED DURING THE CONSTRUCTION DOCUMENT PROCESS.
- PROPOSED NATURE TRAILS SHALL BE 10' WIDE AND MAY BE CONSTRUCTED OF EARTHER MATERIALS, MULCH, OR STONE. TRAIL LOCATIONS SHOWN ON THE REZONING PLAN ARE GRAPHICAL REPRESENTATIONS WITH FINAL LOCATIONS TO BE DETERMINED DURING THE CONSTRUCTION DOCUMENT PHASE AS APPROVED BY THE TOWN OF HARRISBURG.
- THE NATURE TRAIL FROM THE GREENWAY TO THE CUL-DE-SAC ADJACENT TO LOT 150 SHALL BE A PAVED MATERIAL AND SHALL BE PLACED WITHIN A PUBLIC ACCESS EASEMENT.
- THE GREENWAY TRAIL SHALL BE CONSTRUCTED PER HARRISBURG UDO 6.5.3.7.4, WHICH STATES A MINIMUM WIDTH OF 10' AND BE A PAVED MATERIAL. FINAL LOCATION TO BE DETERMINED DURING THE CONSTRUCTION DOCUMENT PHASE AND AS APPROVED BY THE TOWN OF HARRISBURG.
- A PORTION OF NATURAL TRAILS THAT HAVE ACCESS TO STORMWATER WETPONDS SHALL BE A PAVED MATERIAL.

ENVIRONMENTAL FEATURES:

- THE PETITIONER SHALL COMPLY WITH THE TOWN OF HARRISBURG STORMWATER ORDINANCE AND ENGINEERING STANDARDS.
- THE SITE SHALL BE DESIGNED IN ACCORDANCE WITH THE TOWN OF HARRISBURG STORMWATER DRAINAGE MANUAL AND ENGINEERING STANDARDS.
- STORMWATER MANAGEMENT BMP'S SHOWN ON PLANS ARE GRAPHICAL REPRESENTATIONS AND WILL BE DESIGNED DURING THE CONSTRUCTION DOCUMENT PHASE.
- IF STORMWATER WETPONDS ARE REQUIRED, THE FOLLOWING DESIGN CRITERIA SHALL BE UTILIZED:
 - WET PONDS SHALL PROVIDE A FOUNTAIN.
 - WET PONDS SHALL PROVIDE AT LEAST A 10 FT DEPTH OVER AT LEAST 25% OF THE PERMANENT POOL AREA.
 - THE PERMANENT POOL OF A WET POND SHOULD TRY TO BE VISIBLE FROM ADJACENT LOTS AS MUCH AS EXISTING TOPOGRAPHY AND EXISTING TREE CANOPY CAN REASONABLY ALLOW. SITE CONSTRAINTS WILL LARGELY DETERMINE THE FEASIBILITY BUT EFFORTS WILL BE MADE TO MEET THIS OBJECTIVE.
- IMPACTS TO JURISDICTIONAL WATERS WILL BE PERMITTED THROUGH THE U.S. ARMY CORP OF ENGINEERS AND THE NC DEC AS REQUIRED.
- A TREE PRESERVATION STUDY WILL BE COMPLETED AND PREPARED PRIOR TO THE PRELIMINARY PLAT PHASE. ANY HERITAGE TREES THAT ARE TO BE REMOVED WILL REQUIRE THE TOWN OF HARRISBURG UDO SPECIFIED MITIGATION.
- HERITAGE TREES DAMAGED DURING CONSTRUCTION SHALL BE MITIGATED OR REPLACED IN ACCORDANCE TO THE TOWN OF HARRISBURG UDO.
- HERITAGE TREES SHOWN ON RZ-3.0 TO REMAIN ARE SUBJECT TO FINAL GRADING CONDITIONS DURING CONSTRUCTION DOCUMENT PHASE. LIKEWISE, THERE MAY BE TREES SHOWN TO BE REMOVED THAT MAY BE ABLE TO REMAIN.

UTILITIES:

- PROPOSED WATER AND SEWER CONNECTIONS ARE CONCEPTUAL IN NATURE. FINAL CONNECTION LOCATIONS WILL BE DETERMINED DURING THE CONSTRUCTION DOCUMENT PHASE.

AMENDMENTS TO THE REZONING SITE PLAN:

- FUTURE AMENDMENTS TO THE REZONING SITE PLAN (WHICH INCLUDES THESE DEVELOPMENT STANDARDS) MAY BE APPLIED FOR BY THE THEN OWNER OR OWNERS OF THE APPLICABLE DEVELOPMENT AREA PORTION OF THE SITE AFFECTED BY SUCH AMENDMENT.

BINDING EFFECT OF THE REZONING SITE PLAN:

- IF THE REZONING SITE PLAN IS APPROVED, ALL CONDITIONS APPLICABLE TO THE DEVELOPMENT OF THE SITE IMPOSED UNDER THE ZONING PLAN WILL, UNLESS AMENDED IN THE MANNER PROVIDED UNDER THE ORDINANCE, BE BINDING UPON AND INURE TO THE BENEFIT OF THE PETITIONER AND SUBSEQUENT OWNERS OF THE SITE AND THEIR RESPECTIVE HEIRS, DEVISEES, PERSONAL REPRESENTATIVE, SUCCESSORS IN INTEREST OR ASSIGNS.

THIS DRAWING PREPARED AT THE
CHARLOTTE OFFICE

610 E. Morehead Street, Suite 250 | Charlotte, NC 28202
TEL 704.602.8600 FAX 704.576.1076 www.timmons.com

CSC GROUP

600 PARK OFFICES DRIVE, SUITE 372
DURHAM, NORTH CAROLINA 27709

REVISION DESCRIPTION
REVISED PER TOWN COMMENTS
REVISED PER TOWN COMMENTS

DATE
11/13/2020
6/29/2021

DATE
9/15/2020

DRAWN BY
JH

DESIGNED BY
JTH

CHECKED BY
JTH

SCALE
AS SHOWN

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652
MCKINLEY SUBDIVISION
HARRISBURG, NORTH CAROLINA
TECHNICAL DATA SHEET

JOB NO.

45805

SHEET NO.

RZ 2.0

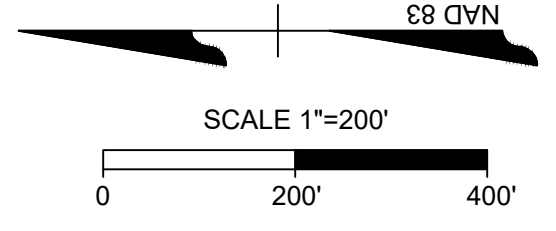
These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CAL	HT	SPAC	REMARKS
AB	40	ACER BUERGERIANUM	TRIDENT MAPLE	B&B	3"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
CC	85	CORUS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	B&B	2"	8' MIN.	A.I.	SINGLE STEM
CK	76	CORNUS KOUSA	KOUSA DOGWOOD	B&B	2"	8' MIN.	A.I.	SINGLE STEM
LS	40	ILEX Y ATTENUATA 'FOSTERI'	FOSTER HOLLY	B&B	2"	8' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
LT	70	LIRIODENDRON TULIPIFERA	TULIP POPLAR	B&B	3.5"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
NS	40	NYSSA SYLVATICA 'GREEN GABLE'	GREEN GABLE BLACK GUM	B&B	3.5"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
QF	40	QUERCUS ALBA	WHITE OAK	B&B	3"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
QF	40	QUERCUS FALCATA	SOUTHERN RED OAK	B&B	3.5"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
QF	42	QUERCUS LYRATA	LAUREL OAK	B&B	3.5"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
QF	40	QUERCUS SHUMARDII	SHUMARD OAK	B&B	3"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
UP	30	ULMUS PARVIFOLIA	LACEBARK ELM	B&B	3.5"	12' MIN.	A.I.	SINGLE STEM
ZS	38	ZELKOVA SERRATA	JAPANESE ZELKOVA	B&B	3.5"	12' MIN.	A.I.	SINGLE STEM

TYPE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CAL	HT	SPAC	REMARKS
SHADE TREE SPECIES								
	376	ACER RUBRUM	RED MAPLE	B&B	3.0"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
		BETULA NIGRA 'DURAHEAT'	DURAHEAT RIVER BIRCH	B&B	3.0"	12' MIN.	A.I.	MULTI-STEM
		LIQUIDAMBAR STYRACIFLUA 'ROTUNDOLOBA'	FRUITLESS SWEETGUM	B&B	3.5"	12' MIN.	A.I.	SINGLE STEM, CENTRAL LEADER
EVERGREEN TREE SPECIES								
	943	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	B&B	3.0"	12' MIN.	A.I.	FULL TO GROUND
		CEDRUS DEODARA	DEODAR CEDAR	B&B	3.0"	12' MIN.	A.I.	FULL TO GROUND
		TAXODIUM DISTICHUM	BALD/CYPRESS	B&B	3.0"	12' MIN.	A.I.	FULL TO GROUND
ORNAMENTAL TREE SPECIES								
	376	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	B&B	2"	8' MIN.	A.I.	MULTI-STEM
		LAGERSTROMIA INDICA	CRAPE MYRTLE, SP	B&B	2"	8' MIN.	A.I.	MULTI-STEM
		PRUNUS CERISIFERA	PURPLE/LEAF PLUM	B&B	2"	8' MIN.	A.I.	SINGLE STEM

SEE SHEET RZ5.0 FOR PLANTING NOTES, DETAILS AND PLANTING CALCULATIONS

	EXISTING TREE
	PROPOSED 50' WIDE TYPE D BUFFER YARD
	PROPOSED 25' WIDE TYPE D BUFFER YARD
	PROPOSED TREE MITIGATION AREA



MCKINLEY SUBDIVISION
HARRISBURG, NORTH CAROLINA
PLANTING PLAN

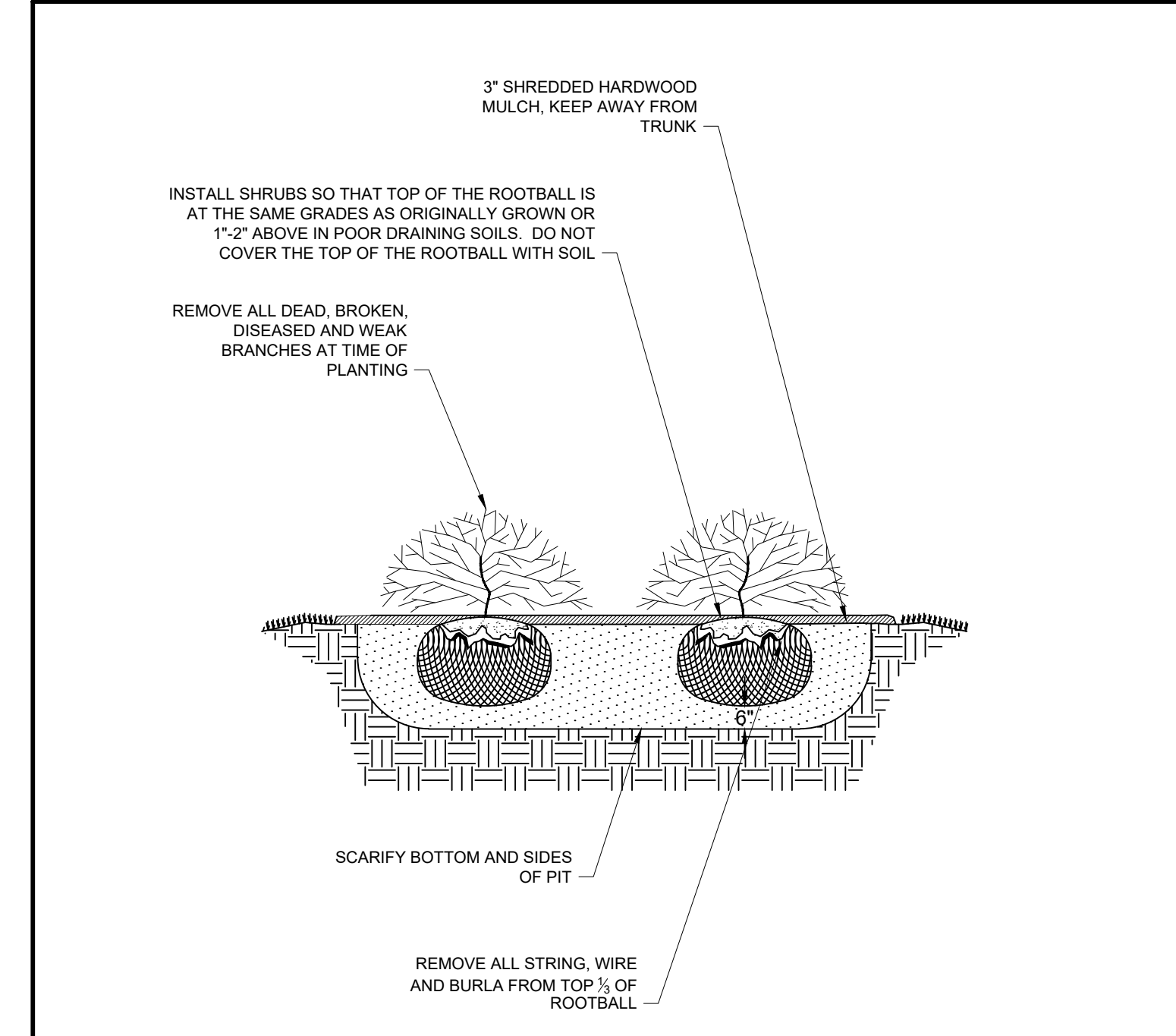
DATE	REVISION DESCRIPTION
11/13/2020	REVISED PER TOWN COMMENTS
06/29/2021	REVISED PER TOWN COMMENTS ^A
07/13/2021	REVISED PER TOWN COMMENTS ^A

DATE	9/15/2020
DRAWN BY	JTH
DESIGNED BY	JTH
CHECKED BY	JTH
SCALE	1" = 200'

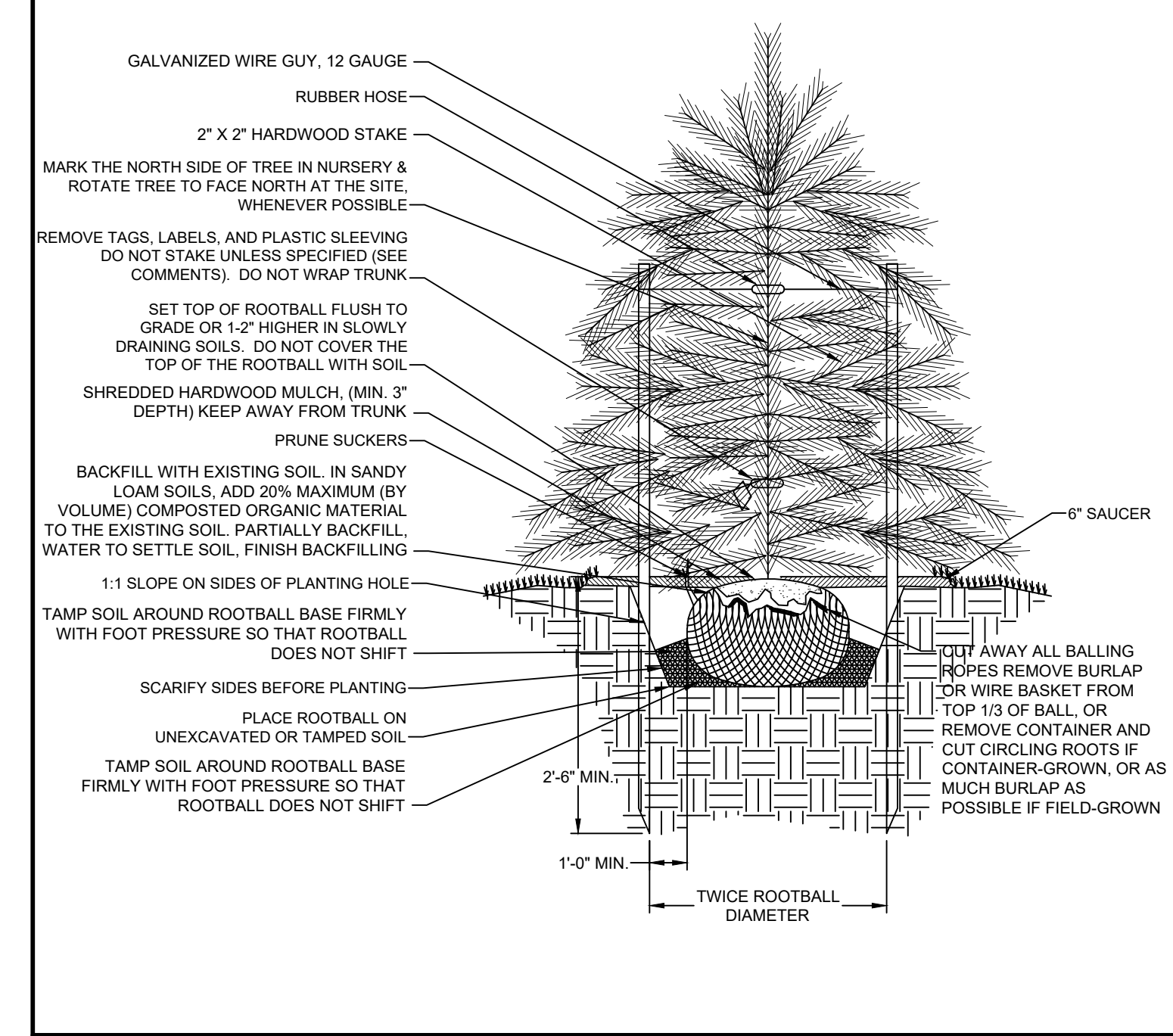
NORTH CAROLINA LICENSE NO. C-1552 MCKINLEY SUBDIVISION HARRISBURG, NORTH CAROLINA PLANTING PLAN	JOB NO. 45805
	SHEET NO. RZ 4.0

These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.

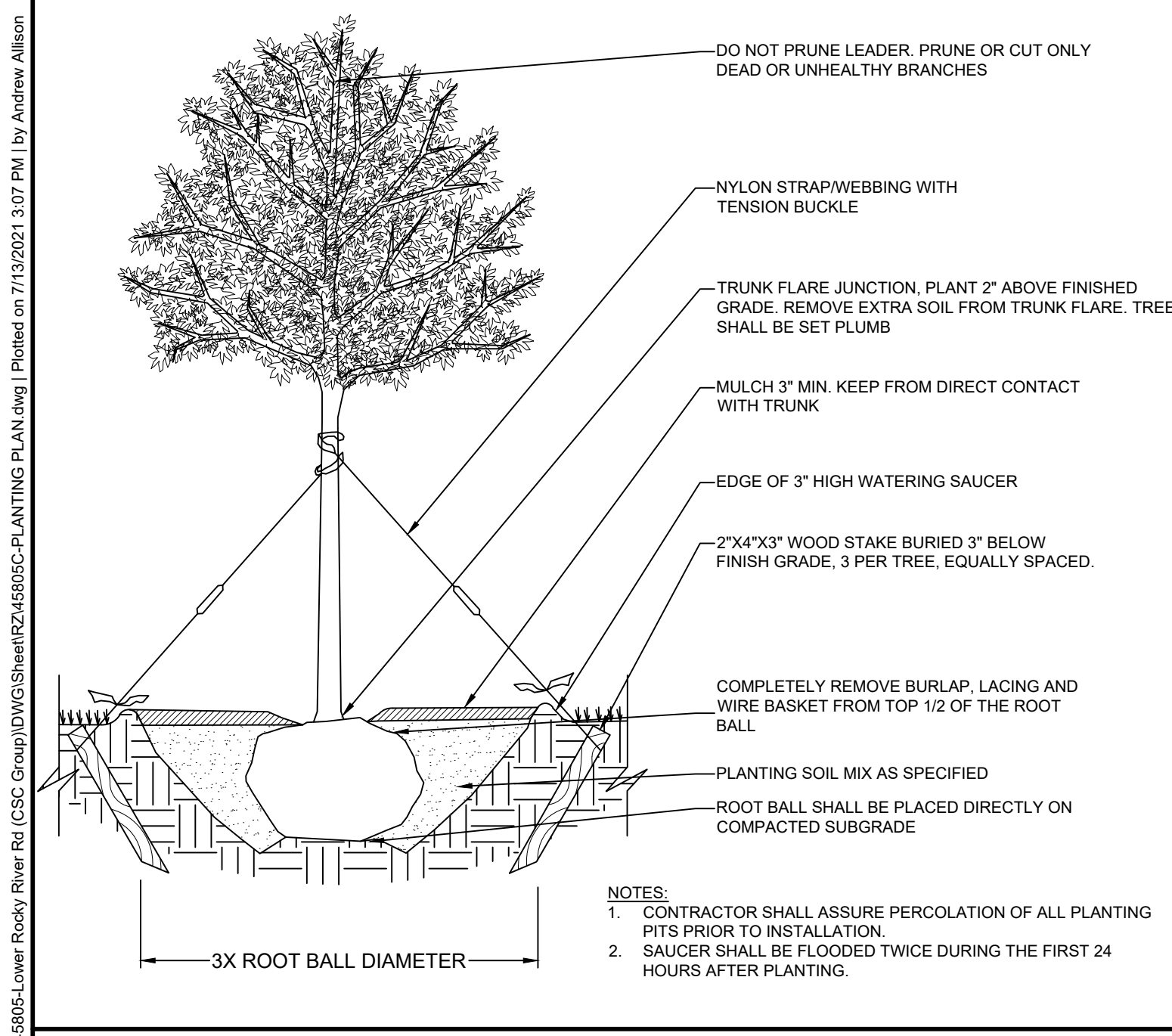
S:\10445805-Lower Rocky River Rd (CSC Group)\DWG\SheetRZ45805C-PLANTING PLAN.dwg | Plotted on 7/13/2021 3:07 PM | by Andrew Allison



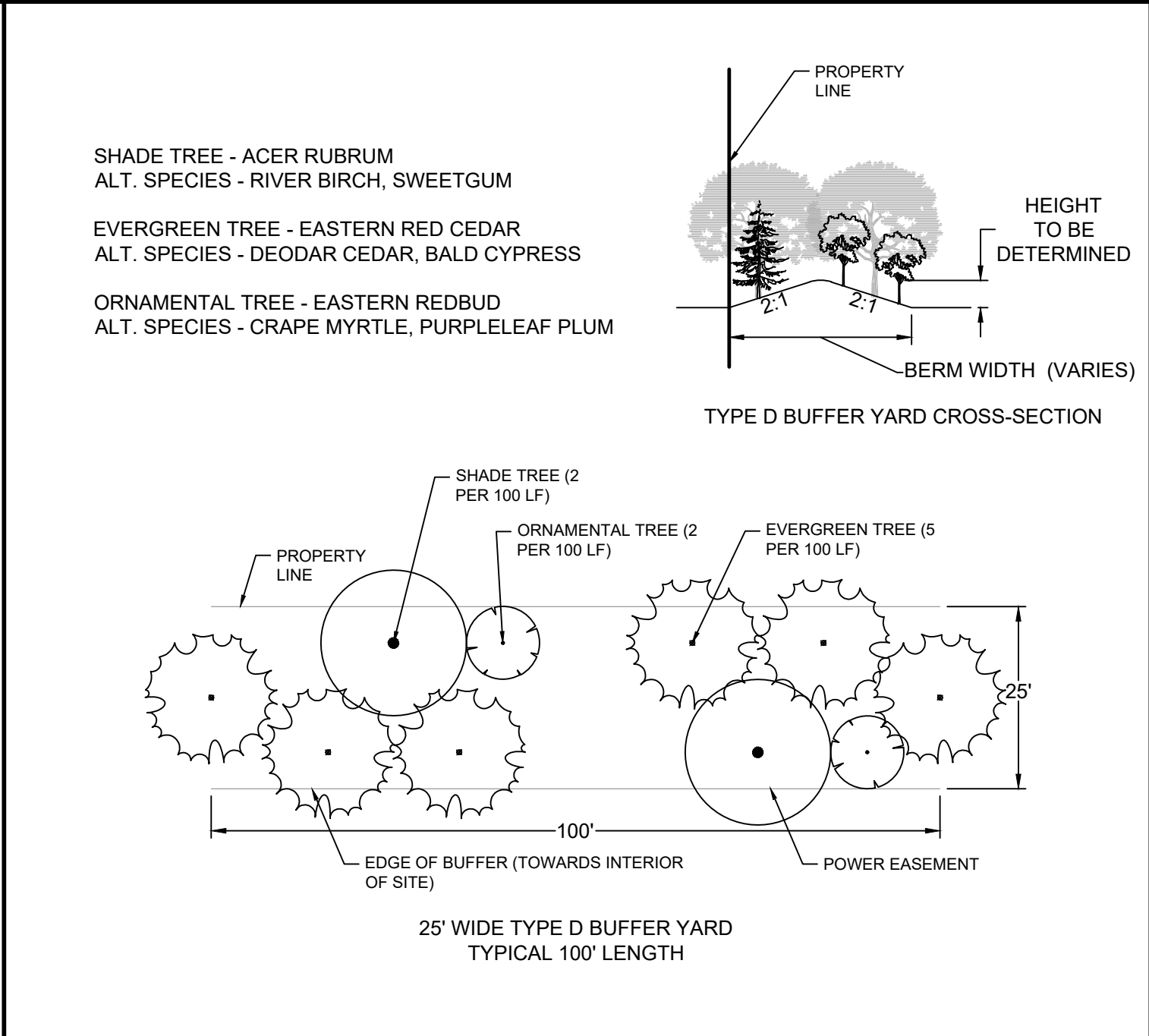
SHRUB PLANTING DETAIL N.T.S.



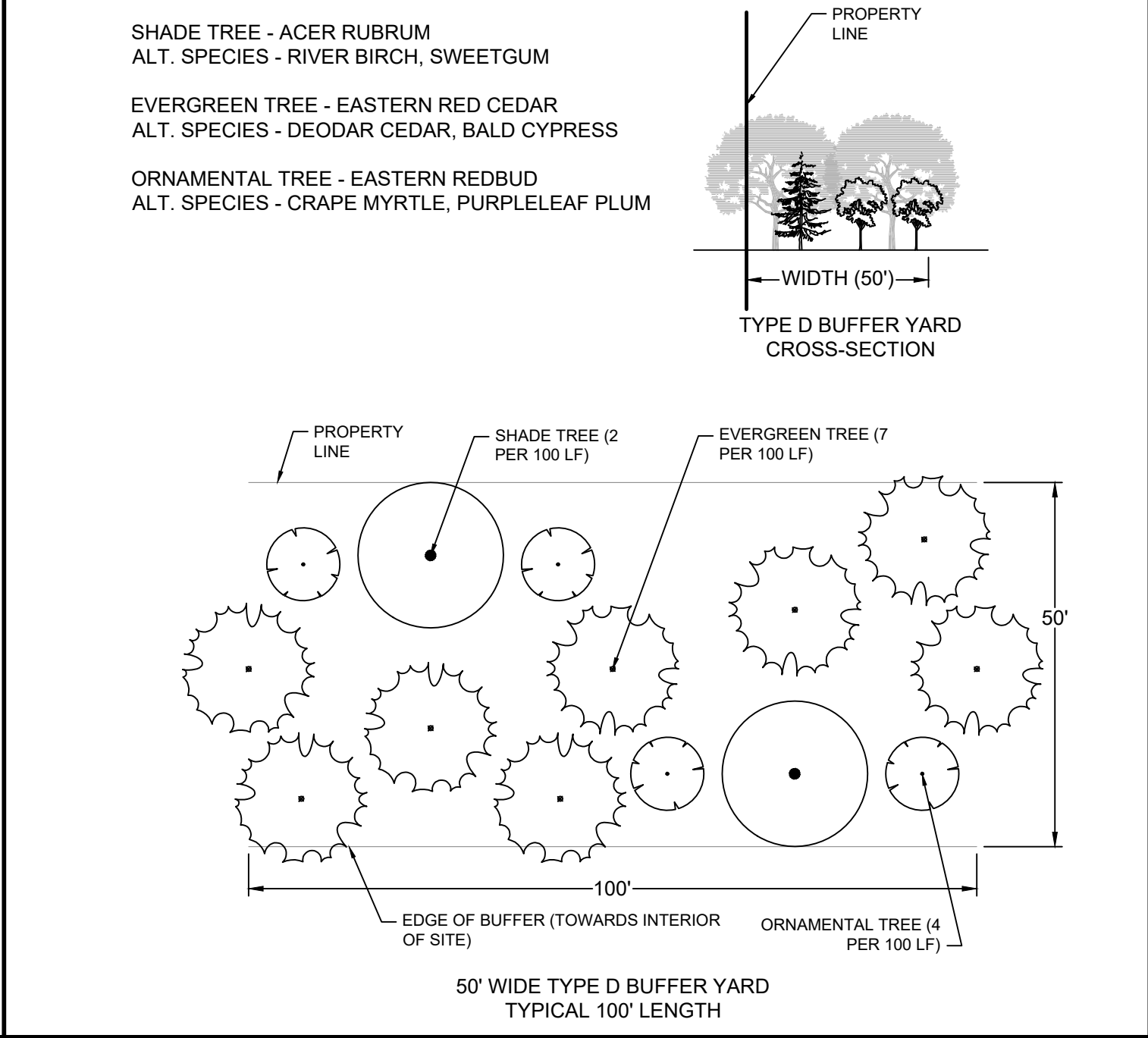
EVERGREEN TREE PLANTING DETAIL N.T.S.



DECIDUOUS TREE PLANTING DETAIL N.T.S.



25' WIDE TYPE D BUFFER YARD SCALE: 1" = 20'



50' WIDE TYPE D BUFFER YARD SCALE: 1" = 20'

PLANTING NOTES:

1. SIZE AND GRADING STANDARDS OF PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF "USA STANDARDS FOR NURSERY STOCK", BY THE AMERICAN ASSOCIATION OF NURSERYMAN, INC.

2. ALL ANNUAL/PERENNIAL BEDS SHALL BE AMENDED BY THE CONTRACTOR PER THE SPECIFICATIONS AND RAISED 6" ABOVE EXISTING OR PROPOSED GRADE. CONTRACTOR SHALL PROVIDE TOPSOIL AS REQUIRED TO RAISE GRADES.

3. CONTRACTOR SHALL MOUND ALL PARKING LOT ISLANDS TO 6" ABOVE BACK OF CURB AT THE CENTER OF ISLAND. CONTRACTOR SHALL SUPPLY AND PLACE ADDITIONAL TOPSOIL IF NECESSARY FOR MOUNDING AS INDICATED ON CONSTRUCTION DOCUMENTS.

4. CONTRACTOR SHALL MULCH ALL LANDSCAPE BEDS WITH DOUBLE-HAMMERED HARDWOOD MULCH AT MIN 1.5"-2" THICK.

5. ALL DISTURBED AREAS WITHIN THE PROPERTY NOT INDICATED TO RECEIVE SOD OR MULCH SHALL BE SODDED BY THE CONTRACTOR.

6. CONTRACTOR SHALL REMOVE ALL HARD LUMPS OF CLAY, ROCKS OVER 1" IN DIAMETER, AND ALL CONSTRUCTION DEBRIS INCLUDING GRAVEL, ROOTS, LIMBS AND OTHER DELETERIOUS MATTER WHICH WOULD BE HARMFUL, OR PREVENT PROPER ESTABLISHMENT AND/OR MAINTENANCE OF PLANTING AREAS.

7. IN AREAS WHERE CONSTRUCTION GRAVEL IS EMBEDDED IN THE SOIL, CONTRACTOR SHALL REMOVE CONTAMINATED SOIL TO A DEPTH OF 6" AND FILL WITH CLEAN TOPSOIL. CONTRACTOR SHALL IMPORT TOPSOIL AT NO CHARGE TO OWNER IF REQUIRED TO FILL THESE EXCAVATIONS.

8. CONTRACTOR SHALL RESEED LAWN AREAS DAMAGED DUE TO PLANT MATERIAL INSTALLATION.

9. CONTRACTOR SHALL REPAIR ANY PAVERS OR HARDSCAPE DAMAGED DUE TO PLANT MATERIAL INSTALLATION.

10. ALL PLANT MATERIAL & INSTALLATION TECHNIQUES SHALL CONFORM TO THE LATEST STANDARDS BY THE AMERICAN ASSOCIATION OF NURSERYMAN, INC.

11. CONTRACTOR SHALL COORDINATE PLANTING PLAN WITH ALL CIVIL DRAWINGS AND LOCATE ALL UNDERGROUND UTILITIES PRIOR TO PLANTING.

12. ALL CHANGES OR FIELD SUBSTITUTIONS SHALL BE APPROVED BY LANDSCAPE ARCHITECT.

13. CONTRACTOR SHALL REMOVE TOP 4" OF EXISTING SOIL WITHIN PLANTING BEDS AND REPLACE WITH PRECONDITIONED SOIL WITH APPROPRIATE PERCENTAGE OF ORGANIC CONTENT FOR OPTIMUM DRAINAGE SUCH AS "GARDEN MAX" SOILS FROM BLUE MAX MATERIALS. BLACK WONDER 5000 BY SIDES SEEDING OR AN APPROVED EQUAL. CONTRACTOR TO TILL IN AMENDED SOIL IN ALL BEDS TO A DEPTH OF 12"-18".

14. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES ON PLANS. DRAWINGS SHALL RULE OVER PLANT SCHEDULES.

15. HEIGHT AND/OR WIDTH OF PLANT MATERIAL SUPERCEDES CONTAINER SIZE.

16. ALL ANNUAL BEDS DESIGNATED ON THE PLANTING PLAN SHALL BE DESIGNED AND INSTALLED PER THE LANDSCAPE CONTRACTOR'S DISCRETION DURING THE APPROPRIATE SEASON AT TIME OF PLANTING (WARM OR COOL SEASON) WITH INPUT AND/OR APPROVAL FROM OWNER AND/OR ITS REPRESENTATIVES.

17. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE ANSI A300 STANDARD FOR TREE, SHRUB, AND OTHER WOODY PLANT MANAGEMENT-STANDARD PRACTICES.

18. ALL PLANT STOCK SHALL COMPLY WITH THE CURRENT EDITION OF ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK.

19. UTILITIES SHALL BE LOCATED BEFORE PLANTING. WWW.NC811.ORG

20. ANY PROPOSED PRIVATE IRRIGATION SHALL NOT LIE WITHIN UTILITY EASEMENTS OR STREET RIGHT OF WAYS.

21. PLANTING LOCATIONS WILL BE ADJUSTED TO PROVIDE SUFFICIENT SPACE FOR UTILITIES, EASEMENTS, STREET LIGHTING, TRAFFIC SIGNS, AND SIGHT TRIANGLES. 5' CLEARANCE AROUND ALL SIDES OF FIRE HYDRANTS AND UTILITY APPURTENANCES. ON PUBLIC STREETS, NO TREES SHALL BE PLANTED WITHIN 75' OF APPROACHING A STOP SIGN. NO PLANTS OR SIGNS OVER 2' TALL WITHIN SITE TRIANGLES.

22. ALL TREES AND THEIR PLANTED LOCATIONS SHALL BE INSPECTED BY TOWN STAFF BEFORE APPROVAL. ANY PLANT MATERIAL WHICH HAS DIED, TURNED BROWN, OR DEFOLIATED PRIOR TO INSPECTION SHALL BE REJECTED.

23. ALL PLANTING AREAS SHALL MEET THE REQUIREMENTS OF THE TOWN OF HARRISBURG UNIFIED DEVELOPMENT ORDINANCE.

24. ANY PROPOSED REDESIGN OF THE APPROVED PLANTING PLAN OR PLANT SPECIES SUBSTITUTIONS SHALL BE APPROVED BY THE TOWN ARBORIST BEFORE INSTALLATION.

THIS DRAWING PREPARED AT THE
CHARLOTTE OFFICE
610 E. Morehead Street, Suite 250 | Charlotte, NC 28202
TEL 704.602.8600 FAX 704.576.1076 www.timmons.com

CSC GROUP
600 PARK OFFICES DRIVE, SUITE 372
DURHAM, NORTH CAROLINA 27709

REVISION DESCRIPTION
REVISOR
DATE
11/13/2020
06/29/2021

REVISION DESCRIPTION
REVISOR
DATE
11/13/2020
06/29/2021

DATE
9/15/2020

DRAWN BY
JTH

DESIGNED BY
JTH

CHECKED BY
JTH

SCALE

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

MCKINLEY SUBDIVISION
HARRISBURG, NORTH CAROLINA

PLANTING NOTES

JOB NO.
45805

SHEET NO.
RZ 5.0

These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.













June 15, 2021

Chris Todd, PE
Senior Project Manager - TIMMONS GROUP
610 East Morehead St., Suite 250
Charlotte, NC 28202

**Re: Lower Rocky River/McKinley Subdivision – Cabarrus County, NC – Existing
Conditions Assessment of Natural Heritage Area**

Dear Chris,

The information presented in this report is an Existing Conditions Assessment of the yellow shaded area within the property boundary of the subject site “McKinley Subdivision” on the attached map supplied by Timmons Group. This area was formerly included as part of a Cabarrus County Natural Heritage site identified as “Reedy Creek Knoll and Beaver Pond” as published in “An Inventory of The Significant Natural Areas of Cabarrus County, North Carolina, 2002” (Figure 1). I have created a new map that shows the results of my current site assessment along with reference to the original NHP study area (Figure 2).

Introduction:

As one of the field botanists on the team that performed the Cabarrus County Natural Heritage Inventory, I participated in the site inventory for the Reedy Creek Knoll and Beaver Pond (RCKBP) in 1998 and wrote the species list and site description that appear in the 2002 published report. I drew the original site map overlain on a USGS Quadrangle map as published in the report. This was before the advent of GPS/GIS or digital mapping, and our maps were produced to reflect the general extent of the site that was surveyed as a whole. The general outline on the original map is geographical, not based on property or physical boundaries.

As part of the permitting process for the proposed development I am providing a current assessment of the portion of the RCKBP site that occurs on the McKinley subdivision property.

Existing Conditions Assessment:

Natural communities are defined as “a distinct and reoccurring assemblage of populations of plants, animals, bacteria, and fungi naturally associated with each other and their physical environment” (The Nature Conservancy 1981). In North Carolina

these natural communities have been categorized and described by Michael P. Schafale and Alan S. Weakley in “Classification of the Natural Communities of North Carolina – Third Approximation”. Classification of natural communities is useful and facilitates prioritization, study, and management of natural areas. Placing communities into categories allows their complexity to be broken down into more manageable units, however, it must be noted that the categories are fairly broad and contain variation within them. Most environmental factors that determine communities vary over continuous gradients and any boundaries defined for community types are artificial and somewhat arbitrary.

The assessed area on the McKinley Subdivision is covered with a **Basic Oak-Hickory Forest** natural community on the uplands and slope, and grades into a **Piedmont/Low Mountain Alluvial Forest** natural community in the stream corridor.

Basic Oak-Hickory Forest natural community type covers dry-mesic Piedmont forests with less acidic and more fertile soils than typical, associated with mafic or intermediate crystalline rocks or occasionally calcareous sedimentary rocks. The moisture regime is dry to dry-mesic. Under natural conditions these forests are uneven-aged, with old trees present.

Piedmont/Low Mountain Alluvial Forests are forests of narrow floodplains, either on small streams or on large rivers where the floodplain is narrowed by bedrock. Flooding is of shorter duration and more variable than on larger floodplains. These forests contain a mixture of alluvial and upland species.

The condition and overall quality of the area on the proposed subdivision is good, with relatively little recent disturbance, however, offsite portions of the original RCKBP have been destroyed by clear-cut timbering and other unknown human caused disturbance.

Summary of Findings:

A good portion of the historically significant RCKBP site as described in the NHP report is not on the McKinley Subdivision site but is on the adjacent property to the west that has since been heavily disturbed by clear-cut timbering. What remains on the McKinley Subdivision site is an un-cut portion of the knoll with the small, westerly flowing stream and wetland corridor, both of good quality natural community types relative to Cabarrus County, but not rare or unusual from other sites with similar characteristics.

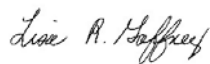
The two main features that made the original RCKPB area significant on the county level in 1998 were the size of continuous, relatively undisturbed habitats as a whole regardless of property lines, and the large wetland complex and beaver impoundments along the northerly flowing tributary on the property to the west of the McKinley Subdivision Site. Although that area was not assessed as part of this study, a review of aerial photography available from several sources indicates that the offsite

area was clear-cut to the property line in 2017. The site to the east of the McKinley Subdivision site near the pond appears to have been disturbed as well, further reducing the overall size of the original RCKBP site. The extreme disturbance, exclusion/fragmentation of off-site beaver impoundments, and reduction in size of the original site could affect the status of what remains on the McKinley Subdivision site if it were to be re-evaluated for a Natural Heritage Program update.

Conclusion:

- There are no rare, threatened, endangered, or protected species or habitats occurring on the site.
- The size and scope of the original Reedy Creek Knoll and Beaver Pond (RCKBP) Natural Heritage site have been significantly reduced by clear-cut timbering and other unknown human disturbance. The Natural Communities on the remnant of the Natural Heritage area on the planned McKinley Subdivision site are of good quality, but the balance of the area that remains has very little environmental or biological importance *from a Natural Heritage Program perspective*. In other words, the current extent of the undisturbed slope and stream corridor would not meet the minimum criteria to qualify as a "significant" natural heritage site on the county level.
- All natural areas have an inherent value, however, in my assessment, the McKinley Subdivision site plan as designed will not destroy any sensitive, rare, or environmentally significant areas.

Respectfully submitted,



Lisa R. Gaffney
Biologist/Botanist

Cc: Len Rindner

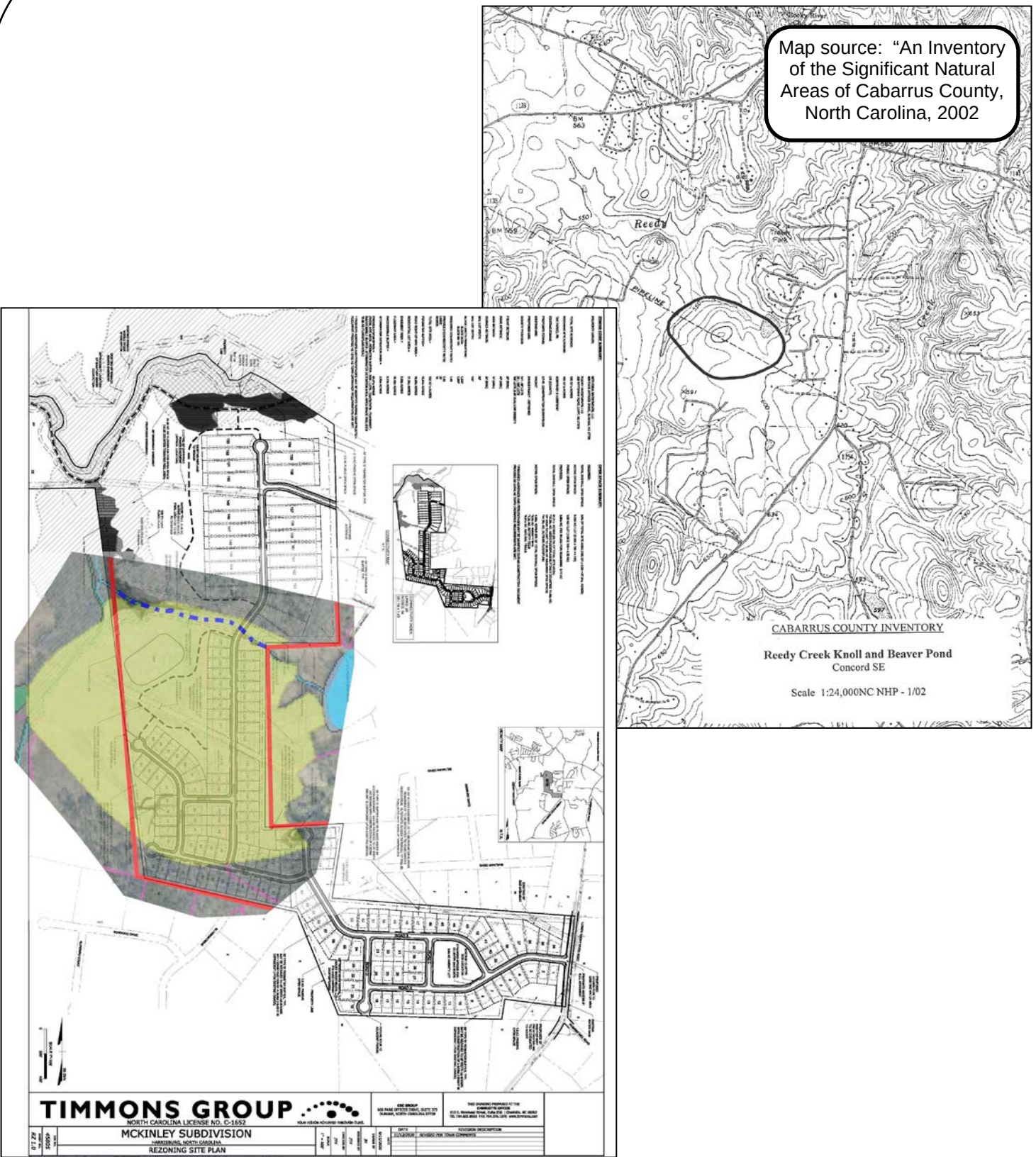


FIGURE NO. 1	WEPG Wetlands and Environmental Planning Group Leonard S. Rindner, PLLC. len.rindner@wetlands-epg.com (704) 904-2277 www.wetlands-epg.com	MCKINLEY SUBDIVISION Cabarrus County, NC	Drawn By: LRG	Reviewed By: LSR	Date: 06/14/21
	NATURAL COMMUNITIES ASSESSMENT FOR STUDY PURPOSES ONLY	Prepared for: TIMMONS GROUP			

APPROXIMATE MAP – EXISTING CONDITIONS STUDY, JUNE 2021

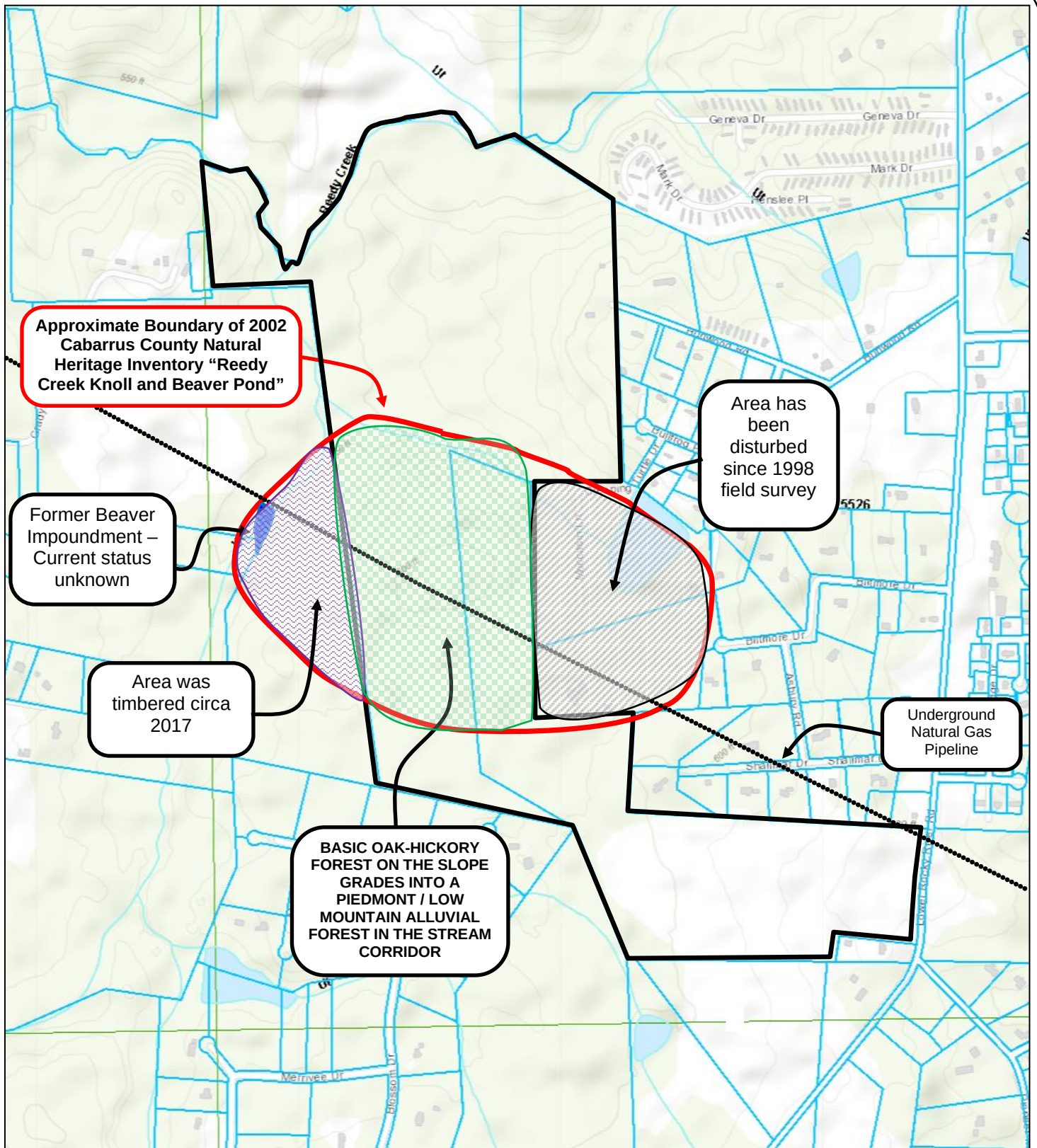


FIGURE NO.
2

WEPG

Wetlands and Environmental Planning Group
Leonard S. Rindner, PLLC.

len.rindner@wetlands-epg.com
(704) 904-2277
www.wetlands-epg.com

MCKINLEY SUBDIVISION

Cabarrus County, NC

NATURAL COMMUNITIES ASSESSMENT

FOR STUDY PURPOSES ONLY

Drawn By:

LRG

Reviewed By:

LSR

Date:

06/14/21

Prepared for: **TIMMONS
GROUP**

McKinley Subdivision - Lower Rocky River Road

February 18, 2021

Attendees:

Al and Angela Allen 1203 Shalimar Drive

Questions:

Tracy Thompson - Concerns about runoff and traffic. Widen to which side of the road?

Stormwater treatment per DEQ requirements, storm system to pick up drainage. TIA by KHA, hired by Town. Have to meet site distance requirements by NCDOT. Actual driveway location may shift a little but location is close. Different ways to widen road (symmetrical/asymmetrical) not determined at this stage. Will be figured out in preliminary plat or CDs.

Angel Allen – Ask that City has looked at Lower Rocky River Road traffic and Rocky River Road.

Improvement required at RRR and LRRR. Other intersections were looked at and TIA requires improvements at other intersections.

Price point of homes and size of homes.

Builder is not under contract yet, so price point is not none. Size is probably 3,000-5,000sf.

Indian burial ground.

We are not aware of this. It did not come up in our research. We did seek input from natural and cultural resources from the state. This did not come up with them either.

Swampy land a concern?

No. Geotech engineer will be involved. Suitable soil may need to be brought in, in some cases. This area is not the area that had been a potential park.

Where would development start?

Start homes at LRRR, then work towards the back. Sewer will need to be extended to the creek.

Chris Guessler

Traffic. Why was study during pandemic?

Looked at traffic counts from several years ago and used a growth pattern (2%) to get a traffic number for the model. TIA preCOVID and this TIA and compare at the next Council meeting.

Concern about impact to wells from blasting rock.

Fire marshal and Town engineer will hold applicant responsible.

Issues with Burlwood and sharp corner.

Requirement of TIA is to bring Burlwood to current standards.

Two hundred year old oak trees.

Who pays for it if they are taken down. 153 total heritage trees. Saving 100 of them. If tree is inside of NCDOT R/W and needs to take it down for improvements, developer would pay for. It is not know at this time if the tree would need to be removed.

What do you do if an eagle is nesting in the tree?

We would need to get environmental consultant involved.

Shirley Wiseman –

Town requires 50' wide buffer that may be reduced to 25' with a berm. Parts of the site have 50' or more. Other areas are 25'

Melanie Freeman – TIA cannot make things worse. No way to measure worse, only letter grades. If already failed you can't measure that traffic is making it worse.

There are numerous tables and charts within the letter grades of LOS to determine if the intersection failed more than it is currently failing. Not all Bs are the same. Town requirement is that any impact at all has to mitigated.

50'-25' – Access off of LRR. Plan destroys countryside view/feel that neighborhood wants. Want more realistic photos of homes (no trees).

Lots close to LRRR. Very little frontage. New R/W and then 50' before first home that would be planted and have entry monument. Some homes would keep existing vegetation and photos would be realistic. Photos represent homes after vegetation is mature.

Creek floods. Greenway wouldn't be usable.

That is not uncommon for greenways. Greenways are typically built along rivers and streams and sometimes they can get flooded.

Matt – Spoke to Mark Eisenbeis.

Mark was our client on the previous rezoning attempt. They decided not to pursue the project.

Currently CR, Harrisburg would be RE. Avoiding natural features. Neighboring lots should be bigger than existing lots. 4 natural heritage areas. How are you saving heritage trees?

Referring to illustrations in ordinance. CR and LR is also allowable as long as you maintain density. Heritage tree locations not shown on this plan. Timmons to add slides to presentation for public to view.

Removal of wetlands requires state permitting. Just because its on a rezoning plan doesn't mean that the State will allow it.

Spoke to Mark to try to buy wetlands. Wants to get in touch with owner.

How will you mitigate runoff? Have you studied the creek?

Have to meet state requirements during construction to protect the streams.

How will you patrol the greenway to keep crime down?

Town doesn't patrol 24/7. There is belief that trails bring crime but the Town doesn't see that here. Town will have to look into the issue if it arises.

Clear cutting with climate change?

Goal is to preserve as many trees as possible.

Steve Dorton – Estate lots in wooded area. Runoff will be significant

1 acre lots. Home towards the front, but rear of lots will likely remain untouched.

Matt – why not all estate size lots.

Cost of land dictates the lot yield necessary to make the project work. Multiple price points for buyers.

Angela – Traffic issue. RRR and LRRR is not the bottle neck But issue is RRR and getting to 485.

How can you not account for all of corridor in model.

The TIA studied LRRR and RRR. The other project may have studied further. Upgrading corridors is up to the state and would be part of a CIP. We were not required to study RRR other than the intersection.

It does not violate ordinance requirement. Analyzing the full corridor is not driven by a project. The TIA is to mitigate the impacts of the project.

Why can BMP be placed in wetlands? What study?

State doesn't allow that. USACE will issue permit for wetland removal.

Why is Harrisburg annexing?

Harrisburg is within Harrisburg planning growth area.

**Traffic Impact Analysis UPDATE for
Lower Rocky River Road
Harrisburg, North Carolina**

Prepared for:

**Town of Harrisburg
Harrisburg, North Carolina**

Prepared by:

**Kimley-Horn and Associates, Inc.
NC License #F - 0102
200 South Tryon Street, Suite 200
Charlotte, North Carolina 28202
(704) 333-5131**



Laura N Reid

07/12/21

**July 2021
018536039**

TABLE OF CONTENTS

	<u>Page No.</u>
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	5
3.0 EXISTING TRAFFIC CONDITIONS	6
3.1 STUDY AREA	6
3.2 EXISTING TRAFFIC VOLUME DEVELOPMENT	7
4.0 BACKGROUND TRAFFIC VOLUME DEVELOPMENT	13
4.1 HISTORICAL BACKGROUND GROWTH TRAFFIC	13
4.2 APPROVED DEVELOPMENTS	13
5.0 SITE TRAFFIC VOLUME DEVELOPMENT	17
5.1 SITE ACCESS	17
5.2 TRAFFIC GENERATION	17
5.3 SITE TRAFFIC DISTRIBUTION AND ASSIGNMENT	18
5.4 BUILD-OUT TRAFFIC VOLUMES	18
6.0 CAPACITY ANALYSIS	22
6.1 LOWER ROCKY RIVER ROAD AND ROCKY RIVER ROAD	24
6.2 LOWER ROCKY RIVER ROAD AND PINE GROVE CHURCH ROAD	26
6.3 LOWER ROCKY RIVER ROAD AND BURLWOOD ROAD	27
6.4 LOWER ROCKY RIVER ROAD AND PIONEER MILL ROAD	28
6.5 LOWER ROCKY RIVER ROAD AND HICKORY RIDGE ROAD	29
6.6 LOWER ROCKY RIVER ROAD AND SITE ACCESS	30
7.0 AUXILIARY TURN LANE WARRANTS	31
8.0 CRASH DATA ANALYSIS	33
9.0 MITIGATION IMPROVEMENTS	35
APPENDIX	37

List of Figures

	<u>Page No.</u>
FIGURE 1.1 – IDENTIFIED MITIGATION IMPROVEMENTS	4
FIGURE 3.1 – STUDY AREA/SITE LOCATION	9
FIGURE 3.2 – PROPOSED SITE PLAN	10
FIGURE 3.3 – EXISTING ROADWAY LANEAGE	11
FIGURE 3.4 – 2020 EXISTING TRAFFIC VOLUMES	12
FIGURE 4.1 – 2024 BACKGROUND AM PEAK-HOUR TRAFFIC VOLUMES	15
FIGURE 4.2 – 2024 BACKGROUND PM PEAK-HOUR TRAFFIC VOLUMES	16
FIGURE 5.1 – SITE TRAFFIC DISTRIBUTION AND ASSIGNMENT	19
FIGURE 5.2 – 2024 BUILD-OUT AM PEAK-HOUR TRAFFIC VOLUMES	20
FIGURE 5.3 – 2024 BUILD-OUT PM PEAK-HOUR TRAFFIC VOLUMES	21
FIGURE 9.1 – IDENTIFIED MITIGATION IMPROVEMENTS	36

List of Tables

	<u>Page No.</u>
TABLE 3.1 - COUNT DATA METHODOLOGY	7
TABLE 5.1 – TRIP GENERATION	17
TABLE 6.0-A VEHICULAR LOS CONTROL DELAY THRESHOLDS FOR <u>UNSIGNALIZED</u> INTERSECTIONS	23
TABLE 6.0-B VEHICULAR LOS CONTROL DELAY THRESHOLDS FOR <u>SIGNALIZED</u> INTERSECTIONS	23
TABLE 6.1 – LOWER ROCKY RIVER ROAD AND ROCKY RIVER ROAD	24
TABLE 6.2 – LOWER ROCKY RIVER ROAD AND PINE GROVE CHURCH ROAD	26
TABLE 6.3 – LOWER ROCKY RIVER ROAD AND BURLWOOD ROAD	27
TABLE 6.4 – LOWER ROCKY RIVER ROAD AND PIONEER MILL ROAD	28
TABLE 6.5 – LOWER ROCKY RIVER ROAD AND HICKORY RIDGE ROAD	29
TABLE 6.6 – LOWER ROCKY RIVER ROAD AND SITE ACCESS	30
TABLE 8.1 – CRASH SEVERITY SUMMARY	33
TABLE 8.2 – ACCIDENT FREQUENCY SUMMARY	33
TABLE 8.3 – ACCIDENT TYPE SUMMARY	34

1.0 Executive Summary

The purpose of this Traffic Impact Analysis (TIA) is to evaluate the vehicular traffic impacts on the surrounding transportation infrastructure as a result of the proposed Lower Rocky River Road development. The primary objectives of the study are:

- To estimate trip generation and distribution for the proposed development.
- To perform intersection capacity analyses for the identified study area.
- To determine the potential traffic impacts of the proposed development.
- To identify improvements to mitigate the proposed development's traffic impacts.

The proposed Lower Rocky River Road development is located in the northeast quadrant of the Lower Rocky River Road and Pioneer Mill Road intersection in Harrisburg, North Carolina. Based on the site plan provided by the applicant, the proposed development is currently envisioned to consist of 165 single-family homes.

For the purposes of this TIA, a build-out year of 2024 was considered. Based on the provided site plan and information provided by the applicant, the proposed development will be accessed via one new full-movement driveway approximately 450 feet north of Pioneer Mill Road.

The proposed development also has a planned connection to Burlwood Road.

A TIA scoping meeting was held with the Town of Harrisburg and representatives of the applicant virtually on September 10, 2020, to obtain background information and to ascertain the scope and parameters to be included in this TIA. A Memorandum of Understanding (MOU) was developed based on discussions from this meeting that documented all scoping parameters to be used for the TIA and was reviewed and agreed upon by the Town of Harrisburg and the applicant. Additionally, North Carolina Department of Transportation (NCDOT) reviewed and approved the MOU, which is included in the **Appendix**.

The following AM and PM peak-hour scenarios were analyzed to determine the proposed development's transportation impacts on the surrounding network:

- 2020 Existing Conditions
- 2024 Background Conditions
- 2024 Build-out Conditions

Based on coordination with the Town, NCDOT, and the Applicant, this TIA evaluated operations under each of the AM and PM peak-hour scenarios above for the following study area intersections:

1. Lower Rocky River Road and Rocky River Road
2. Lower Rocky River Road and Pine Grove Church Road
3. Lower Rocky River Road and Pioneer Mill Road
4. Lower Rocky River Road and Burlwood Road
5. Lower Rocky River Road and Hickory Ridge Road
6. Lower Rocky River Road and Site Access

Kimley-Horn was retained to determine the potential traffic impacts of this development (in accordance with the traffic study guidelines in the *NCDOT Policy on Street and Driveway Access to North Carolina Highways* and set forth by the *Town of Harrisburg Unified Development Ordinance – Appendix F*), and to identify transportation improvements that may be required to

mitigate these impacts. This report presents trip generation, distribution, capacity analyses, and identified transportation improvements required to mitigate anticipated traffic demands produced by the subject development.

Based on the capacity analyses performed at each of the identified study intersections, along with review of the auxiliary turn-lane warrants contained herein, the following improvements have been identified to mitigate the impact of the proposed development on the adjacent street network:

Lower Rocky River Road and Rocky River Road

- Construction of a westbound left-turn lane along Rocky River Road with a minimum of 250 feet of storage.
- Implementation of permitted-overlap phasing on the northbound right-turn lane.

Eastbound right-turn lane is proposed to be constructed by the Hickory Ridge Road (HRR) development. This lane will be required mitigation for this development if not committed by the HRR development.

Lower Rocky River Road and Pine Grove Church Road

- Construction of a westbound right-turn lane along Pine Grove Church Road with a minimum of 100 feet of storage.
- Construction of a southbound left-turn lane along Lower Rocky River Road with a minimum of 150 feet of storage.

Lower Rocky River Road and Burlwood Road

- Construction of a northbound left-turn lane along Lower Rocky River Road with a minimum of 100 feet of storage.
- Upgrade the existing section of Burlwood Road to provide a 20 foot asphalt pavement section (minimum).

Lower Rocky River Road and Pioneer Mill Road

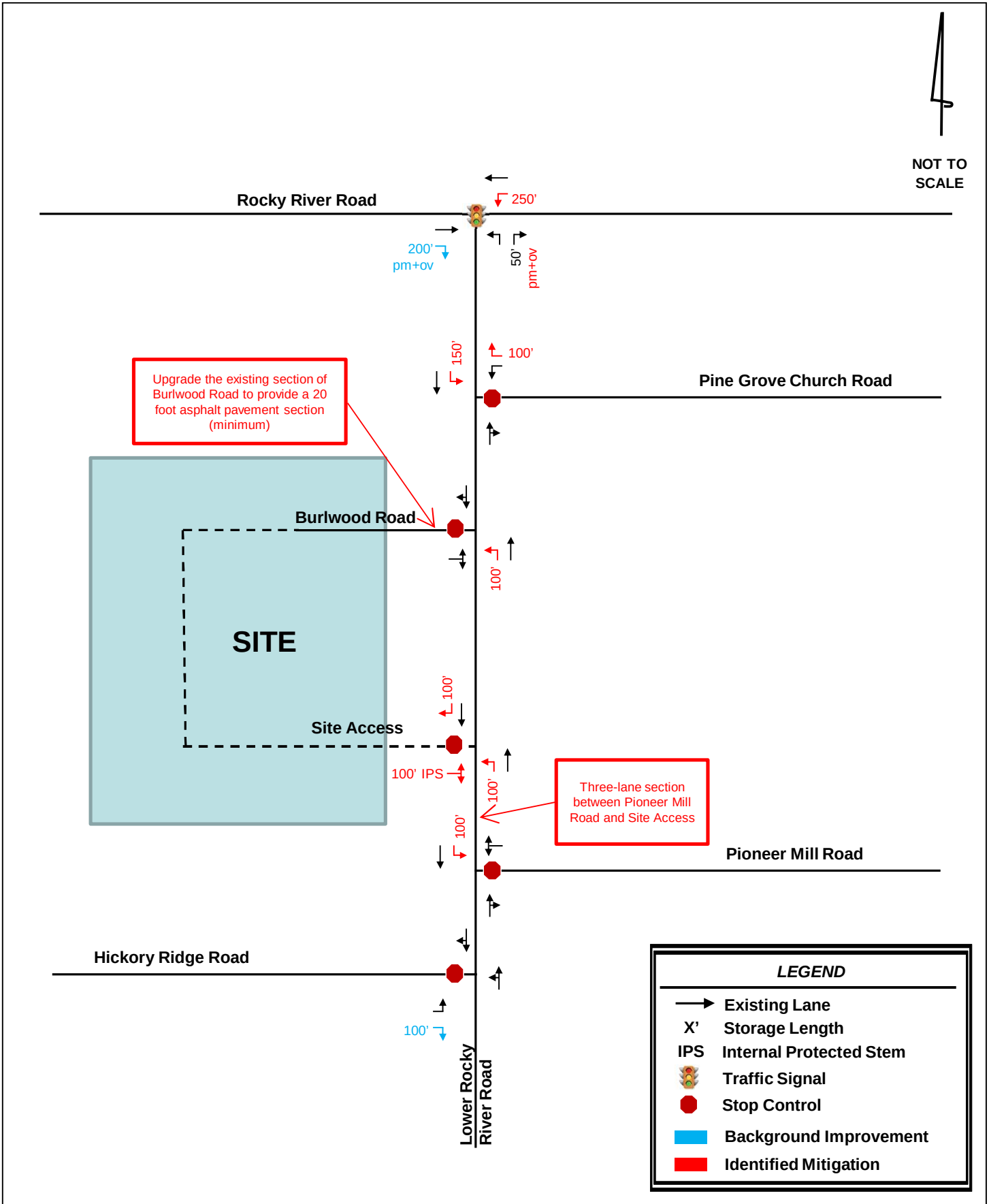
- Construction of a southbound left-turn lane along Lower Rocky River Road with a minimum of 100 feet of storage.
- Construction of a three-lane section along Lower Rocky River Road between Pioneer Mill Road and the Site Access.

Lower Rocky River Road and Site Access

- Construction of the eastbound approach with one ingress & one egress lane and an internal protected stem of 100 feet.
- Construction of a southbound right-turn lane along Lower Rocky River Road with a minimum storage length of 100 feet.
- Construction of a northbound left-turn lane along Lower Rocky River Road with a minimum storage length of 100 feet.
- Construction of a three-lane section along Lower Rocky River Road between Pioneer Mill Road and the Site Access.

The mitigation improvement identified within the study area are shown in **Figure 1.1**. The improvements shown on this figure are subject to approval by NCDOT and the Town of Harrisburg.

All additions and attachments to the State and Town roadway system shall be properly permitted, designed and constructed in conformance to standards maintained by the agencies.



2.0 Introduction

The proposed Lower Rocky River Road development is located in the northeast quadrant of the Lower Rocky River Road and Pioneer Mill Road intersection in Harrisburg, North Carolina. Based on the site plan provided by the applicant, the proposed development is currently envisioned to consist of 165 single-family homes.

For the purposes of this TIA, a build-out year of 2024 was considered. Based on the provided site plan and information provided by the applicant, the proposed development will be accessed via one new full-movement driveway approximately 450 feet north of Pioneer Mill Road.

The proposed development also has a planned connection to Burlwood Road.

A TIA scoping meeting was held with the Town of Harrisburg and representatives of the applicant virtually on September 10, 2020, to obtain background information and to ascertain the scope and parameters to be included in this TIA. A Memorandum of Understanding (MOU) was developed based on discussions from this meeting that documented all scoping parameters to be used for the TIA and was reviewed and agreed upon by the Town of Harrisburg and the applicant. Additionally, North Carolina Department of Transportation (NCDOT) reviewed and approved the MOU, which is included in the **Appendix**.

Kimley-Horn was retained to determine the potential traffic impacts of this development (in accordance with the traffic study guidelines in the *NCDOT Policy on Street and Driveway Access to North Carolina Highways* and set forth by *Town of Harrisburg Unified Development Ordinance – Appendix F*), and to identify transportation improvements that may be required to mitigate these impacts. This report presents trip generation, distribution, capacity analyses, crash analyses and identified transportation improvements required to mitigate anticipated traffic demands produced by the subject development.

3.0 Existing Traffic Conditions

Existing traffic conditions were coordinated with Town of Harrisburg and NCDOT staff and collected through field observations and previously collected turning-movement counts to establish the existing conditions baseline analysis.

3.1 STUDY AREA

Based on coordination with the Town, NCDOT and the applicant, the study area for this TIA includes the following existing intersections:

1. Lower Rocky River Road and Rocky River Road
2. Lower Rocky River Road and Pine Grove Church Road
3. Lower Rocky River Road and Pioneer Mill Road
4. Lower Rocky River Road and Burlwood Road
5. Lower Rocky River Road and Hickory Ridge Road

Figure 3.1 shows the study area intersections and the site location, **Figure 3.2** shows the proposed site plan for the development as provided by the applicant and **Figure 3.3** shows the existing roadway geometry at the study intersections.

The primary roadways in the vicinity of the site are Lower Rocky River Road, Rocky River Road, Pine Grove Church Road, Pioneer Mill Road, Burlwood Road, and Hickory Ridge Road.

Rocky River Road is currently a two-lane, undivided major collector west of the Lower Rocky River Road intersection and carries an annual average daily traffic (AADT) volume of 11,000 vehicles per day (vpd) based on 2019 NCDOT AADT data. To the east of the Lower Rocky River intersection, it is a two-lane, undivided minor arterial and carries a volume of 8,000 vpd based on 2019 NCDOT AADT data. Rocky River Road has a posted speed limit of 45 miles per hour (mph) throughout the study area.

Lower Rocky River Road is currently a two-lane, undivided minor collector with a posted speed limit of 45 mph in the vicinity of the proposed development. Lower Rocky River Road carries an AADT volume of 4,800 vpd south of Pine Grove Church Road and 2,700 vpd south of Pioneer Mill Road based on 2019 AADT data.

Pine Grove Church Road is currently a two-lane, undivided local road with a posted speed limit of 45 mph in the study area. Pine Grove Church Road carries an AADT volume of 3,200 vpd based on 2019 NCDOT AADT data.

Burlwood Road is currently a two-lane, undivided local road with a posted speed limit of 35 mph in the vicinity of the proposed development. Burlwood Road does not have an available NCDOT AADT volume.

Pioneer Mill Road is currently a two-lane, undivided local road with a posted speed limit of 45 mph within the study area. Pioneer Mill Road does not have an available NCDOT AADT volume.

Hickory Ridge Road is currently a two-lane, undivided local road with a posted speed limit of 45 mph in the vicinity of the proposed development. Hickory Ridge Road carries an AADT volume of 1,400 vpd north of Lower Rocky River Road based on 2019 AADT data.

3.2 EXISTING TRAFFIC VOLUME DEVELOPMENT

Due to COVID-19 and associated impacts to work and school schedules at the time of this TIA, it was determined that new peak-hour turning movement counts may not be indicative of “typical” traffic operations. Existing traffic volumes were determined based on the alternative methodology outlined below and as documented in the approved MOU (included in the **Appendix**).

AM (7:00-9:00 AM) and PM (4:00-6:00 PM) intersection turning-movement, heavy-vehicle, pedestrian and bicycle counts were collected by National Data and Surveying (NDS) on Thursday, April 24, 2018, at the following intersections:

- Lower Rocky River Road and Rocky River Road
- Lower Rocky River Road and Pine Grove Road
- Lower Rocky River Road and Pioneer Mill Road
- Lower Rocky River Road and Hickory Ridge Road

Existing traffic counts were grown based on historic AADTs in the study area. Growth rates for each roadway can be seen in **Table 3.1** below.

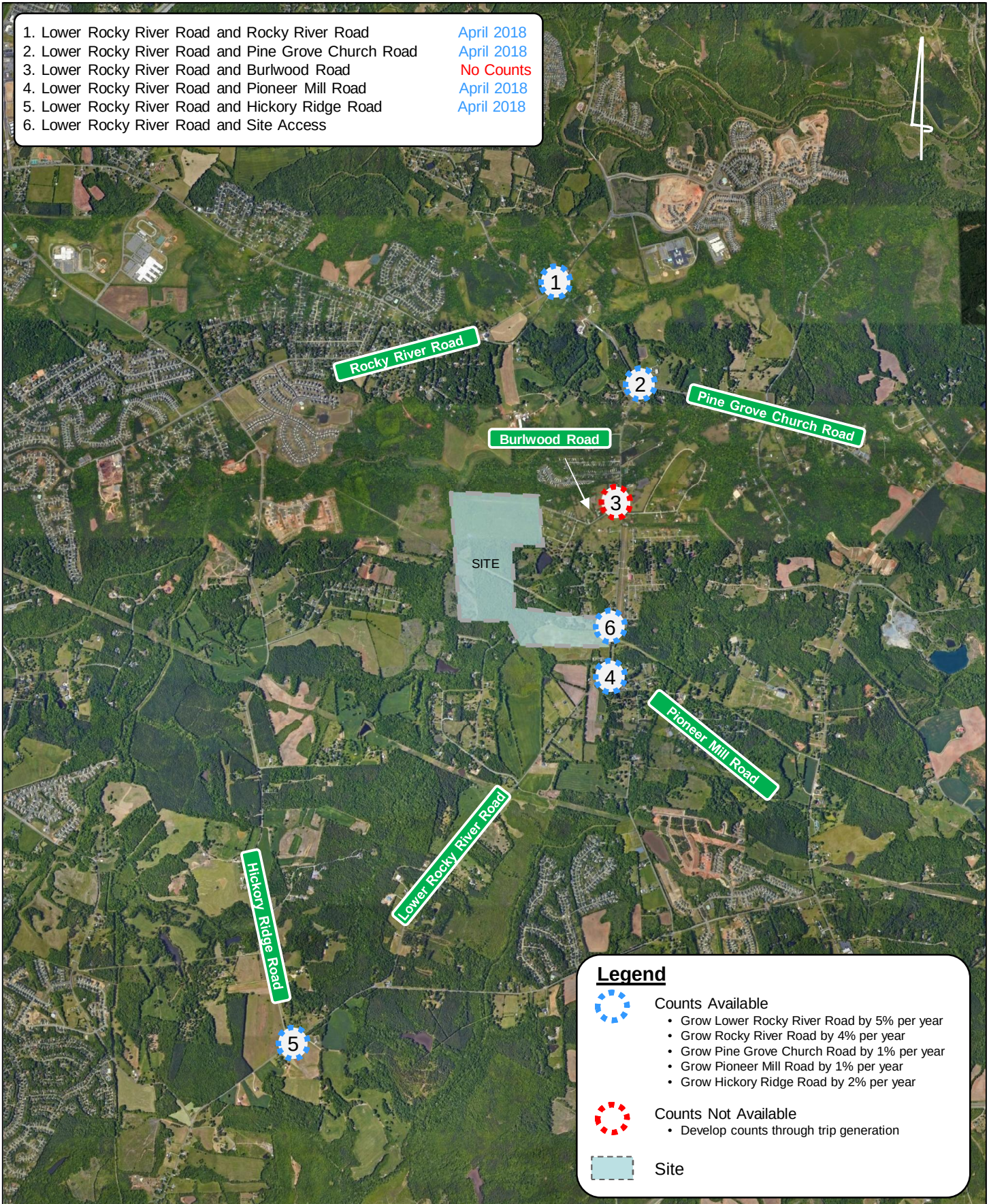
Table 3.1 - Count Growth Methodology			
Study Area Intersection	Count Date	Source	Methodology to determine 2020 traffic volumes
Lower Rocky River Road at Rocky River Road	4/24/18	NDS	• Grow Rocky River Road by 4% per year • Grow Lower Rocky River Road by 5% per year
Lower Rocky River Road at Pine Grove Road	4/24/18	NDS	• Grow Lower Rocky River Road by 5% per year • Grow Pine Grove Road by 1% per year
Lower Rocky River Road at Pioneer Mill Road	4/24/18	NDS	• Grow Lower Rocky River Road by 5% per year • Grow Pioneer Mill Road by 1% per year
Lower Rocky River Road at Hickory Ridge Road	4/24/18	NDS	• Grow Hickory Ridge Road by 2% per year • Grow Lower Rocky River Road by 5% per year

NDS – National Data & Surveying Services (traffic count subconsultant)

A historic peak-hour turning movement count was not available at the intersection of Lower Rocky River Road and Burlwood Road. To determine existing traffic volumes at this intersection, trip generation rates published in *Trip Generation* (Institute of Transportation Engineers, 10th Edition) were used to calculate traffic volumes entering and exiting the existing residential road. Based on review of aerial imagery, a trip generation was performed for 30 homes on Burlwood Road. Calculated trips were then assigned as turning movements based on existing ADTS. Through movements along Lower Rocky River Road were calculated based on traffic volumes at Lower Rocky River Road and Pine Grove Church Road. Hand calculations of these volumes can be found in the **Appendix**.

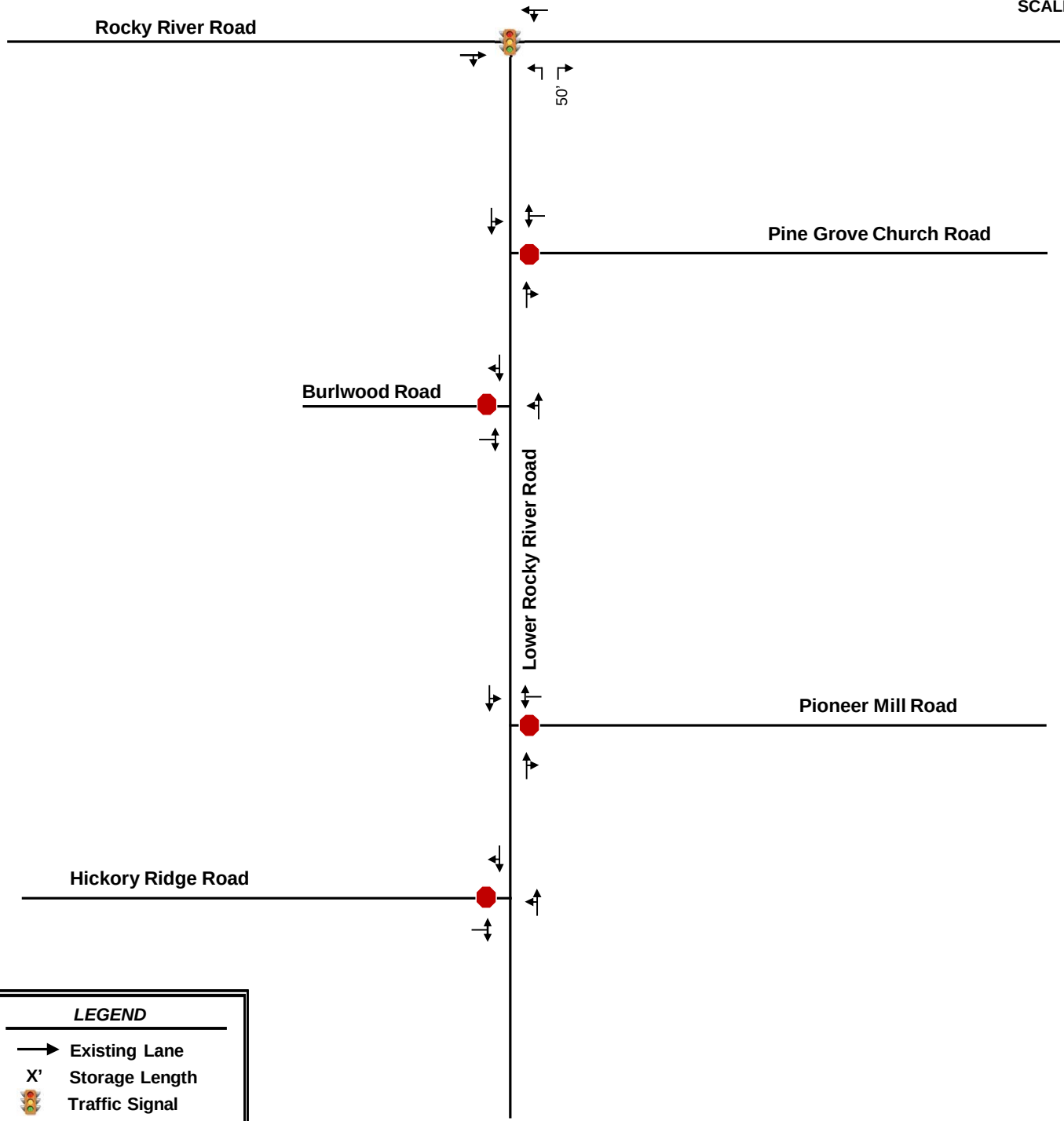
Volume balancing was not performed between the remaining study area intersections due to the presence of driveways and distance between the intersections. Peak-hour intersection turning-movement count data is provided in the **Appendix**. A summary of the count data and methodology can be seen in **Figure 3.1**.

Figure 3.4 illustrates the 2020 existing AM and PM peak-hour traffic volumes.



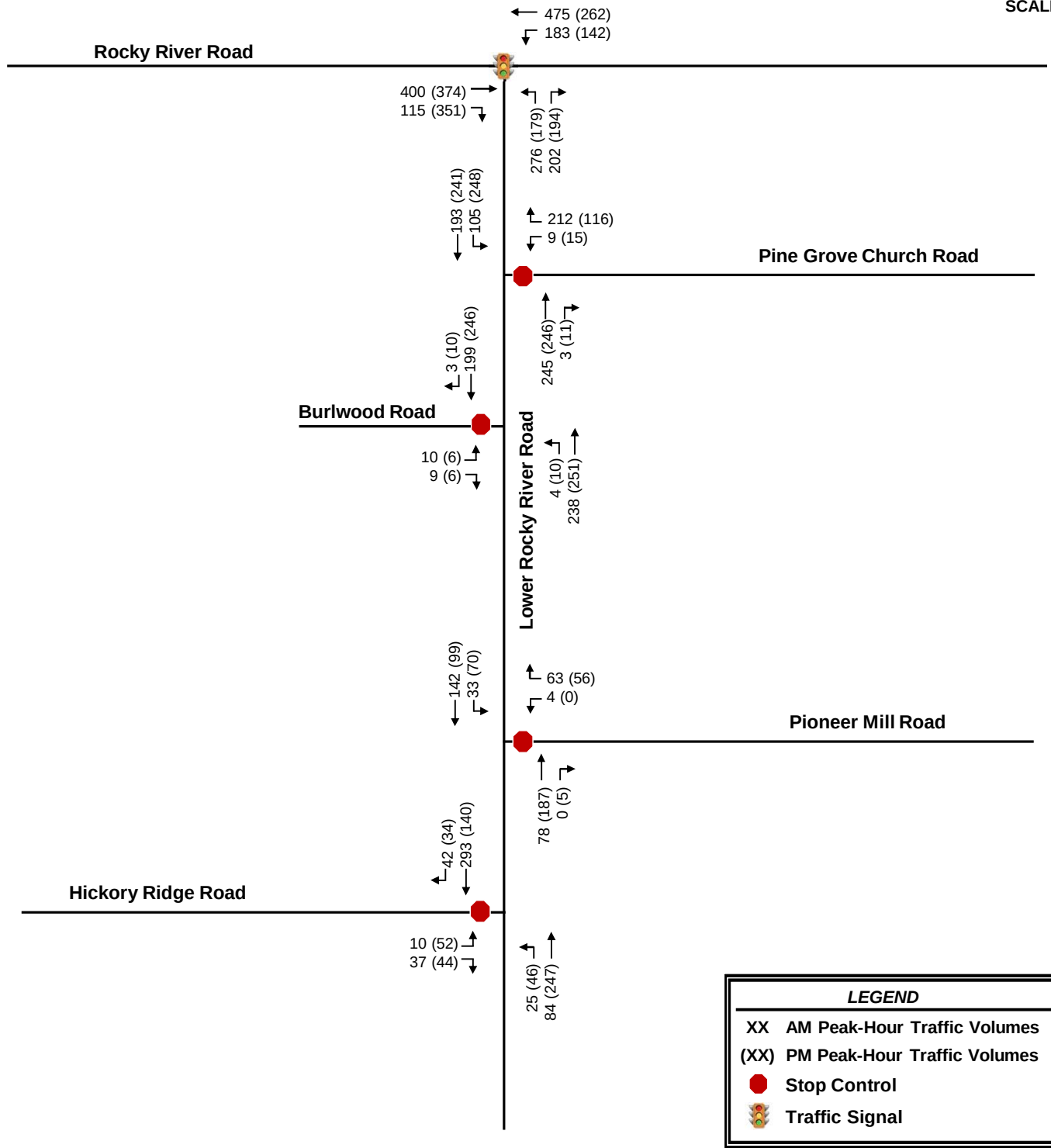


NOT TO
SCALE





NOT TO
SCALE



4.0 Background Traffic Volume Development

Projected background (non-project) traffic is defined as the expected growth or change in traffic volumes on the surrounding roadway network between the year the existing counts were collected and the expected build-out year absent the construction and opening of the proposed project. This includes both non-specific general growth based on historical increase in local traffic volumes (historical background growth), along with specific growth and/or change in traffic volumes caused by either approved, but not yet fully-constructed, off-site developments and/or planned transportation projects specifically identified within the vicinity of the proposed development.

4.1 HISTORICAL BACKGROUND GROWTH TRAFFIC

Historical background growth is the increase in existing traffic volumes due to usage increases and non-specific growth throughout the area, and accounts for growth that is independent of specific off-site developments or planned transportation projects. Historical background growth traffic is calculated using an annual growth rate, which is applied to the existing traffic volumes up to the future horizon years. For this analysis, an annual growth rate of 2% was applied to the 2020 existing peak-hour traffic volumes to calculate base 2024 background traffic volumes. This methodology was determined based on coordination with Town of Harrisburg and NCDOT staff.

4.2 APPROVED DEVELOPMENTS

At the direction of the Town of Harrisburg and NCDOT staff, ten approved developments that are expected to impact traffic volumes within the study area were included in the background traffic volumes for this TIA. Two additional approved developments were added to the original eight outlined in the approved scoping package. The ten approved developments include:

- Farmington Mixed Use
- Holcombe Woods
- Grantham
- Essex Homes
- Camellia Gardens
- Stallings Road Subdivision
- Addison Park
- SW Cabarrus Elementary School
- Orchid Ridge (previously known as Hickory Ridge Road Development)
- Hickory Ridge Single Family

Per coordination with the Town, all developments were assumed to be 0% built-out at the time of the turning-movement counts.

Volumes for the approved developments were obtained from the following sources:

- Farmington TIA (Davenport, May 2018)
- Holcombe Property TIA (SEPI Engineering and Construction, November 2014)
- Avanti – Robinson Church Road Subdivision TIA (STV Incorporated, November 2014) [Grantham]
- Camellia Gardens TIA (Kimley-Horn, June 2019)
- Stallings Road Subdivision TIA (Kimley-Horn, October 2018)
- New Southwest Elementary School TIA (Kimley-Horn, March 2018)
- Hickory Ridge Road Development TIA (Kimley-Horn, February 2021)

A TIA was not performed for Essex Homes, Addison Park, or Hickory Ridge Single Family. Therefore, trip generation was performed for these sites and project trips associated with these developments were distributed throughout the study area based on the existing turning movement counts.

The following laneage improvements were identified at the intersection of Lower Rocky River Road and Hickory Ridge Road in the *New Southwest Elementary School TIA*:

- Construction of a southbound right-turn lane with 100 feet of storage
- Construction of an eastbound left-turn lane with 150 feet of storage
- Construction of the westbound right-turn lane with 50 feet of storage

Per a letter from the NCDOT Municipal and School Transportation Assistance (MSTA) group and Congestion Management section dated October 11, 2019, construction of these improvements are not committed to be done by the school. Therefore, these improvements associated with the school were not included in the future year conditions.

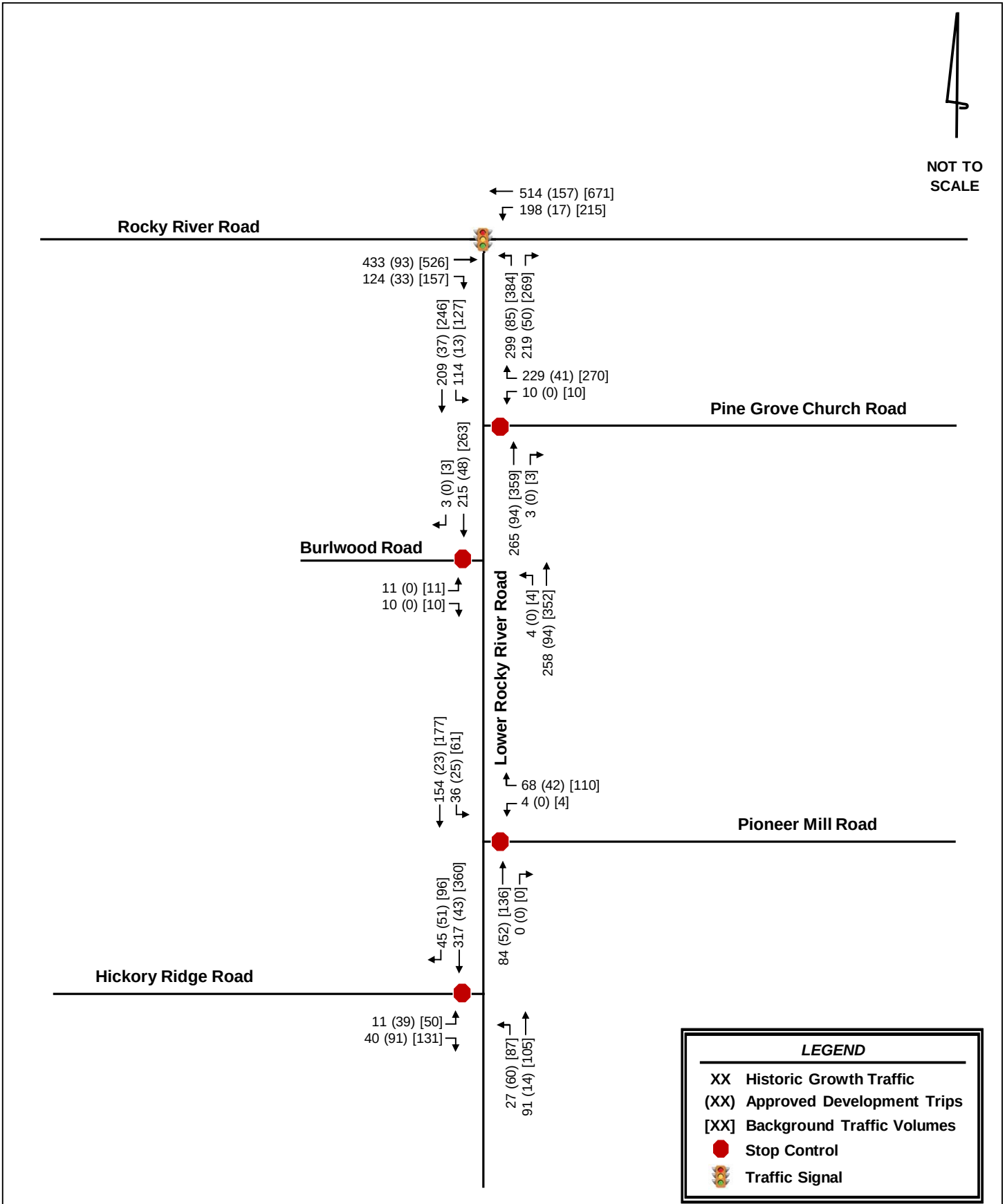
The following laneage improvements were included in all future year conditions at the intersection of Lower Rocky River Road and Rocky River Road based on the identified mitigation in the *Hickory Ridge Road Development TIA* (Orchid Ridge):

- Construction of an eastbound right-turn lane with 200 feet of storage and permitted-overlap phasing

The following laneage improvements were included in all future year conditions at the intersection of Lower Rocky River Road and Hickory Ridge Road based on the identified mitigation in the *Hickory Ridge Road Development TIA* (Orchid Ridge):

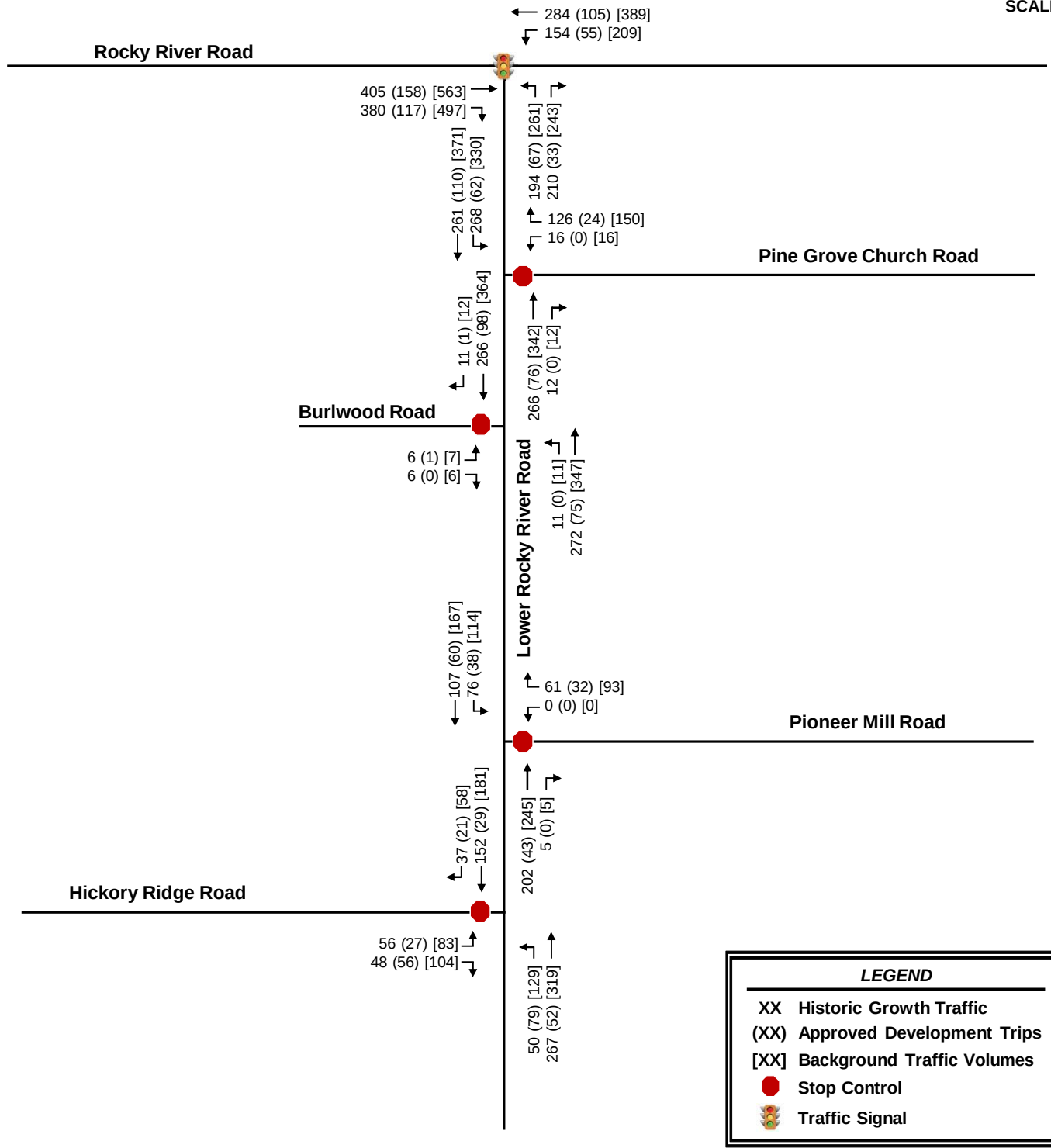
- Construction of an eastbound right-turn lane with 100 feet of storage

Figures 4.1 and **4.2** show the 2024 background AM and PM peak-hour traffic volumes, respectively, that include the historical growth traffic and approved development trips.





NOT TO
SCALE



5.0 Site Traffic Volume Development

Site traffic developed for this TIA is defined as the vehicle trips expected to be generated and added to the study area by construction of the proposed development, and the distribution and assignment of that traffic throughout the surrounding network.

5.1 SITE ACCESS

For the purposes of this TIA, a build-out year of 2024 was considered. Based on the provided site plan and information provided by the applicant, the proposed development will be accessed via one new full-movement driveway approximately 450 feet north of Pioneer Mill Road.

The proposed development also has a planned connection to Burlwood Road.

5.2 TRAFFIC GENERATION

The traffic generation potential of the proposed development was determined using the trip generation rates published in *Trip Generation* (Institute of Transportation Engineers, Tenth Edition, 2017). Based on the site plan provided by the applicant, the proposed development is currently envisioned to consist of 165 single-family homes.

Table 5.1 summarizes the projected trip generation for the built conditions of the proposed development, respectively. During a typical weekday, upon build-out of the proposed development, it has the potential to generate 122 and 164 net new external trips during the AM and PM peak hours, respectively.

Table 5.1 - Trip Generation										
Land Use		Intensity		Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
	Single-Family Homes	165	DU	1,648	122	31	91	164	103	61
Net New External Trips				1,648	122	31	91	164	103	61

5.3 SITE TRAFFIC DISTRIBUTION AND ASSIGNMENT

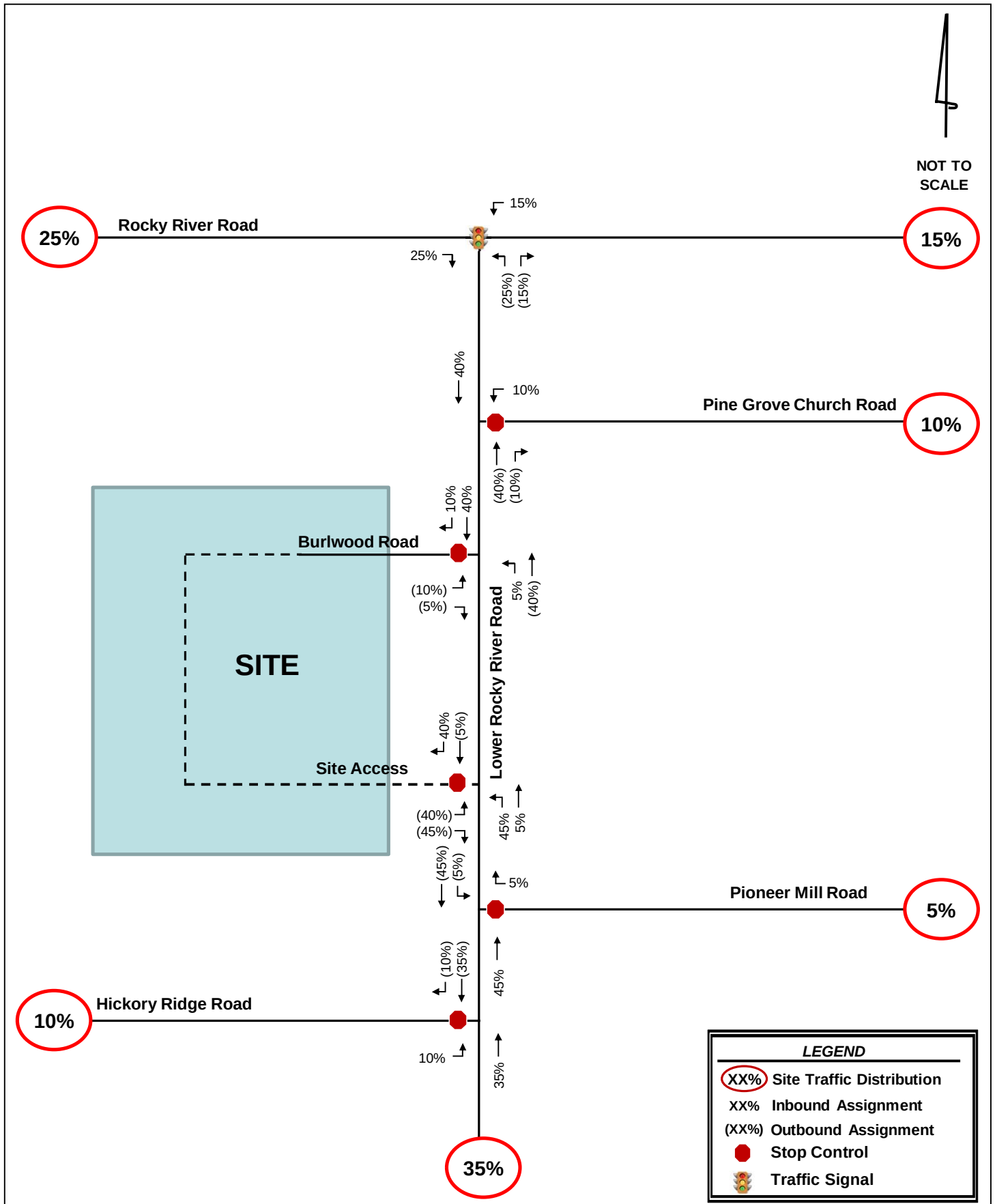
The proposed development's trips were assigned to the surrounding network based on existing peak-hour turning movements, surrounding land uses, locations of similar land use and population densities in the area. The following site traffic distribution was reviewed and approved as part of the MOU by the Town of Harrisburg, NCDOT and the applicant:

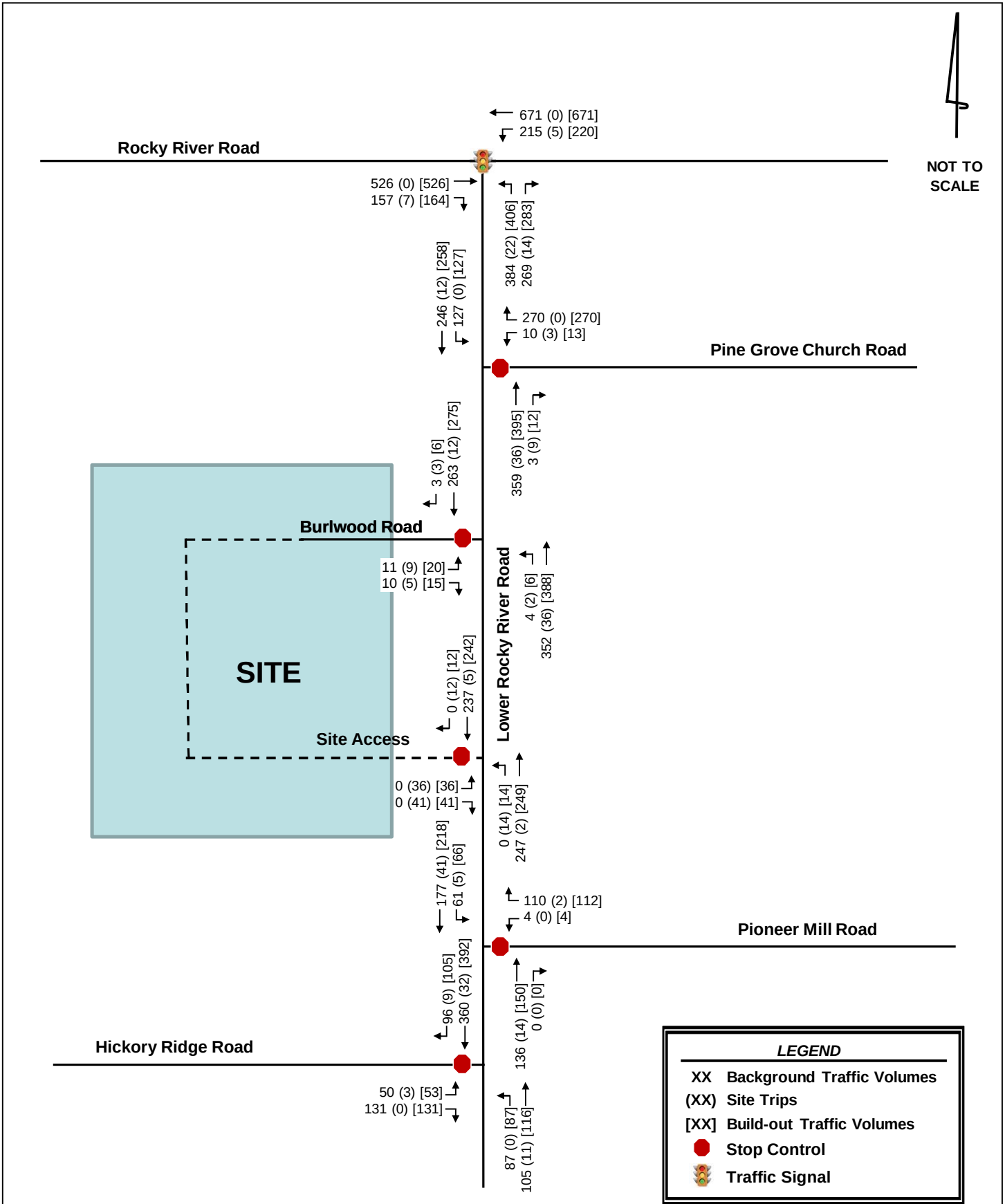
- 25% to/from the west along Rocky River Road
- 15% to/from the east along Rocky River Road
- 10% to/from the east along Pine Grove Church Road
- 5% to/from the east along Hickory Ridge Road
- 10% to/from the west along Hickory Ridge Road
- 35% to/from the south along Lower Rocky River Road

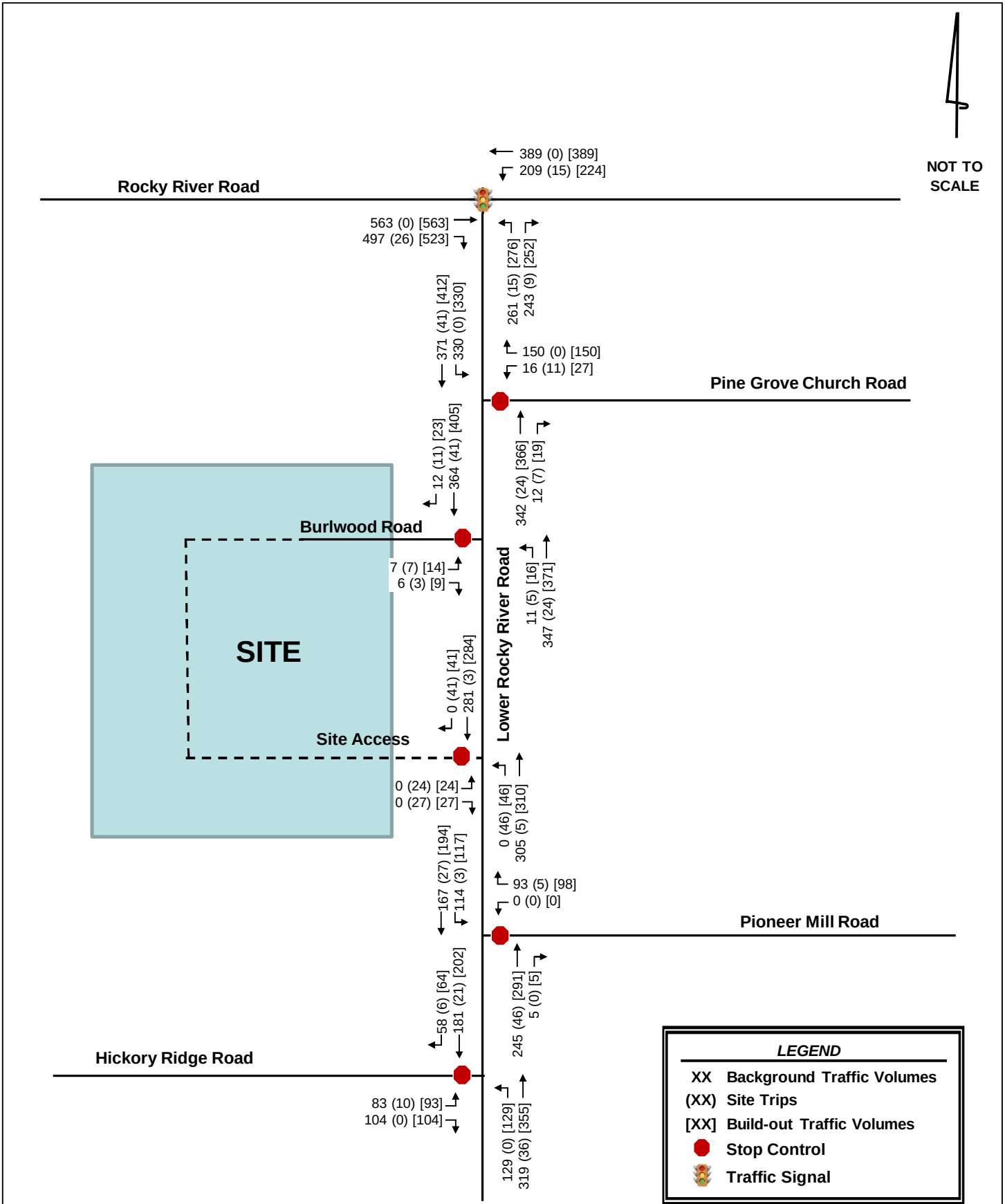
The overall site traffic distribution and assignment is shown in **Figure 5.1**.

5.4 BUILD-OUT TRAFFIC VOLUMES

The build-out traffic volumes include the assignment of the projected site traffic generation added to the appropriate background traffic volumes. **Figures 5.2** and **5.3** show the projected 2024 build-out traffic volumes for the AM and PM peak hours, respectively. Intersection volume development worksheets for all intersections within the study network are provided in the **Appendix**.







6.0 Capacity Analysis

Based on the requirements set forth by the *Town of Harrisburg Unified Development Ordinance – Appendix F* and in accordance with the traffic study guidelines in the *NCDOT Policy on Street and Driveway Access to North Carolina Highways*, capacity analyses were performed at the study area intersections for each of the following AM and PM peak-hour scenarios:

- 2020 Existing Conditions
- 2024 Background Conditions
- 2024 Build-out Conditions

Capacity analyses were performed for the AM and PM peak hours using the Synchro Version 10 software to determine the operating characteristics at the signalized and stop-controlled intersections of the adjacent street network and to evaluate the impacts of the proposed development. Capacity is defined as the maximum number of vehicles that can pass over a particular road segment, or through a particular intersection, within a specified period of time under prevailing operational, geometric and controlling conditions within a set time duration. This software program uses methodologies contained in the *Highway Capacity Manual* (HCM) to determine the operating characteristics of an intersection.

The *Highway Capacity Manual* (HCM) defines LOS as a “quantitative stratification of a performance measure or measures representing quality of service” and is used to “translate complex numerical performance results into a simple A-F system representative of travelers’ perceptions of the quality of service provided by a facility or service”. The HCM defines six levels of service, LOS A through LOS F, with A having the best operating conditions from the traveler’s perspective and F having the worst. However, it must be understood that “the LOS letter result hides much of the complexity of facility performance”, and that “the appropriate LOS for a given system element in the community is a decision for local policy makers”. According to the HCM, “for cost, environmental impact, and other reasons, roadways are typically designed not to provide LOS A conditions during peak periods but instead to provide some lower LOS that balances individual travelers’ desires against society’s desires and financial resources. Nevertheless, during low-volume periods of the day, a system element may operate at LOS A.”

LOS for a two-way stop-controlled (TWSC) intersection is determined by the control delay at the side-street approaches, typically during the highest volume periods of the day, the AM and PM peak periods. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. With respect to field measurements, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue to the time the vehicle departs from the stop line. It is typical for stop sign-controlled side streets and driveways intersecting major streets to experience long delays during peak hours, particularly for left-turn movements. The majority of the traffic moving through the intersection on the major street experiences little or no delay.

LOS for signalized intersections is reported for the intersection as a whole, and typically during the highest volume periods of the day, the AM and PM peak periods. One or more movements at an intersection may experience a low level-of-service, while the intersection as a whole may operate acceptably.

Table 6.0-A and **6.0-B** list the LOS control delay thresholds published in the HCM for unsignalized and signalized intersections, respectively, as well as the unsignalized operational descriptions assumed herein.

Table 6.0-A Vehicular LOS Control Delay Thresholds for Unsignalized Intersections		
Level-of-Service	Average Control Delay per Vehicle [sec/veh]	
A	≤ 10	Short Delays
B	> 10 – 15	
C	> 15 – 25	
D	> 25 – 35	Moderate Delays
E	> 35 – 50	
F	> 50	Long Delays

Table 6.0-B Vehicular LOS Control Delay Thresholds for Signalized Intersections	
Level-of-Service	Average Control Delay per Vehicle [sec/veh]
A	≤ 10
B	> 10 – 20
C	> 20 – 35
D	> 35 – 55
E	> 55 – 80
F	> 80

Using the signal timing plans provided by NCDOT, cycle lengths and splits were optimized for the existing conditions analysis. A Congestion Management minimum cycle length of 120 seconds based on the phasing of the signalized intersections was also utilized. Intersection cycle lengths and splits were optimized in background conditions and utilized in build-out conditions.

The following modifications from the background data collected were applied to the capacity analyses to meet NCDOT *Congestion Management Capacity Analysis Guidelines*:

- Right-turn-on-red (RTOR) operations were not allowed.
- Protected-only left-turn phasing was used for analysis of future operations where protected/permitted left-turn phasing and a dedicated left-turn lane exists.
- Lost time adjust was added to the yellow and all-red times provided in the existing signal plans to maintain at total lost time of 5 seconds for each movement.
- A minimum of 4 vehicles per hour were used for permissible movements, excluding movements into and out of the proposed site.

In the existing condition, the observed peak hour factor (PHF) was used in the analysis. A weighted PHF was used for all future year conditions in the AM peak hour to account for the impacts of school traffic. A 0.9 PHF was used for all future conditions in the PM peak hour.

Capacity analysis reports generated by Synchro Version 10 software are included in the **Appendix**.

6.1 LOWER ROCKY RIVER ROAD AND ROCKY RIVER ROAD

Table 6.1 summarizes the LOS, control delay and 95th percentile queue lengths at the signalized intersection of Lower Rocky River Road and Rocky River Road.

Table 6.1 - Lower Rocky River Road and Rocky River Road								
Condition	Measure	EB		WB		NB		Intersection
		EBT	EBR	WBL	WBT	NBL	NBR	LOS (Delay)
AM Peak Hour								
2020 Existing	LOS (Delay)	F (100.7)		F (126.3)		F (134.4)		F (120.5)
	Synchro 95th Q	#678'	-	-	#1017'	#521'	#357'	
2024 Background	LOS (Delay)	F (162.0)		F (248.4)		F (200.3)		F (208.5)
	Synchro 95th Q	#852'	143'	-	#1449'	#729'	#484'	
2024 Build-out	LOS (Delay)	F (160.6)		F (249.9)		F (226.9)		F (216.1)
	Synchro 95th Q	#852'	149'	-	#1453'	#783'	#519'	
2024 Build-out IMP:	LOS (Delay)	F (117.7)		B (20.0)		F (116.7)		E (77.5)
WBL Lane	Synchro 95th Q	#710'	114'	215'	367'	#651'	171'	
PM Peak Hour								
2020 Existing	LOS (Delay)	D (52.9)		E (73.4)		F (81.1)		E (65.4)
	Synchro 95th Q	#901'	-	-	#446'	223'	#274'	
2024 Background	LOS (Delay)	D (37.5)		E (75.1)		E (77.5)		E (57.2)
	Synchro 95th Q	#605'	314'	-	#636'	#335'	#327'	
2024 Build-out	LOS (Delay)	D (37.4)		F (84.1)		F (85.9)		E (61.8)
	Synchro 95th Q	#605'	340'	-	#664'	#362'	#343'	
2024 Build-out IMP:	LOS (Delay)	B (19.2)		C (22.6)		D (37.0)		C (24.4)
WBL Lane	Synchro 95th Q	439'	204'	#249'	143'	#289'	160'	
Existing/Background Storage			200'				50'	
Exceeds storage								
# 95th percentile volume exceeds capacity, queue may be longer								

As shown in **Table 6.1**, under 2020 existing conditions, the overall intersection is expected to operate at LOS F and LOS E in the AM and PM peak hours, respectively.

As noted in **Section 4.2**, as committed by the Orchid Ridge development, construction of an eastbound right-turn lane with 200 feet of storage and permitted-overlap phasing was included in both background and build-out conditions at this intersection.

With this improvement in place, under the 2024 background conditions, the overall intersection is expected to continue to operate at LOS F in the AM peak hour and LOS E in the PM peak hour. It should be noted that the significant increase in delay from existing to background conditions in the AM peak hour is due to the addition of approved development volumes.

With the addition of site traffic, the overall intersection is expected to remain at LOS F and LOS E with increases in delay in both peak hours. Due to the increases in delay, mitigation was considered at this intersection.

To mitigate the impact of site traffic, a westbound left-turn lane was considered. With the addition of a westbound left-turn lane, the overall intersection is expected to operate at LOS E and LOS C in the AM and PM peak hours, respectively. A storage length of 250 feet would be needed to accommodate the anticipated westbound left-turning queue. In addition, the implementation of permitted-overlap phasing on the northbound right-turn lane would be recommended.

Implementation of this turn lane would require widening along Rocky River Road, both east and west of Lower Rocky River Road. If all widening is done to the north side of Rocky River Road, the total linear impact could be 1,000-1,500 feet and could impact driveways to Rocky River Presbyterian Church and the intersection of Rocky River Road and Pharr Mill Road.

In addition, the eastbound right-turn lane storage is expected to be exceeded in background and build-out conditions in the PM peak hour and the northbound right-turn lane storage is expected to be exceeded in all conditions analyzed in both peak hours. Since the storage length is expected to be exceeded without the proposed development, and the recommended turn lanes are expected to reduce the background queues, extension of these turn lanes has not been identified as mitigation for the proposed development.

6.2 LOWER ROCKY RIVER ROAD AND PINE GROVE CHURCH ROAD

Table 6.2 summarizes the LOS, control delay and 95th percentile queue lengths at the unsignalized, stop-controlled intersection of Lower Rocky River Road and Pine Grove Church Road.

Table 6.2 - Lower Rocky River Road and Pine Grove Church Road					
Condition	Measure	WB		NB	SB
		WBL	WBR	NBTR	SBLT
AM Peak Hour					
2020 Existing	LOS (Delay)	B (13.9)		A (0.0)	A (3.8)
	Synchro 95th Q	46'	-	0'	10'
2024 Background	LOS (Delay)	C (22.0)		A (0.0)	A (4.4)
	Synchro 95th Q	105'	-	0'	14'
2024 Build-out	LOS (Delay)	D (26.8)		A (0.0)	A (4.5)
	Synchro 95th Q	128'	-	0'	15'
2024 Build-out IMP	LOS (Delay)	C (20.8)		A (0.0)	A (4.5)
	Synchro 95th Q	93'	93'	0'	15'
PM Peak Hour					
2020 Existing	LOS (Delay)	C (18.7)		A (0.0)	A (5.8)
	Synchro 95th Q	46'	-	0'	25'
2024 Background	LOS (Delay)	C (21.2)		A (0.0)	A (6.6)
	Synchro 95th Q	58'	-	0'	34'
2024 Build-out	LOS (Delay)	E (36.3)		A (0.0)	A (6.7)
	Synchro 95th Q	105'	-	0'	35'
2024 Build-out IMP	LOS (Delay)	C (22.6)		A (0.0)	A (6.7)
	Synchro 95th Q	45'	45'	0'	35'

As shown in **Table 6.2**, under existing conditions, the overall intersection is expected to operate with short delays in both peak hours. In the 2024 background conditions, the intersection is expected to continue to operate with short delays in both peak hours. However, with the addition of site traffic, the stop-controlled westbound approach is expected to operate with moderate delays and drop to LOS D and LOS E in the AM and PM peak hours, respectively. Due to the increase in delay, mitigation was considered at this intersection.

To mitigate the impact of site traffic, it is recommended that a westbound right-turn lane along Pine Grove Church Road with a minimum of 100 feet of storage be constructed. With this improvement in place, the westbound approach is expected to return to LOS C with short delays in both peak hours.

6.3 LOWER ROCKY RIVER ROAD AND BURLWOOD ROAD

Table 6.3 summarizes the LOS, control delay and 95th percentile queue lengths at the unsignalized, stop-controlled intersection of Lower Rocky River Road and Burlwood Road. Under the build-out condition, Burlwood Road is planned to provide access to the site.

Table 6.3 - Lower Rocky River Road and Burlwood Road				
Condition	Measure	EB	NB	SB
		EBLR	NBLT	SBTR
AM Peak Hour				
2020 Existing	LOS (Delay)	B (11.5)	A (0.1)	A (0.0)
	Synchro 95th Q	3'	0'	0'
2024 Background	LOS (Delay)	B (13.4)	A (0.1)	A (0.0)
	Synchro 95th Q	4'	0'	0'
2024 Build-out	LOS (Delay)	B (14.7)	A (0.2)	A (0.0)
	Synchro 95th Q	8'	0'	0'
PM Peak Hour				
2020 Existing	LOS (Delay)	B (12.1)	A (0.4)	A (0.0)
	Synchro 95th Q	2'	1'	0'
2024 Background	LOS (Delay)	B (13.5)	A (0.4)	A (0.0)
	Synchro 95th Q	3'	1'	0'
2024 Build-out	LOS (Delay)	C (15.4)	A (0.5)	A (0.0)
	Synchro 95th Q	6'	1'	0'

As shown in **Table 6.3**, under 2020 existing conditions, the stop-controlled eastbound approach of Burlwood is expected to operate with short delays in both peak hours.

Under 2024 background conditions, the overall intersection is expected to continue to operate with short during both peak hours. In the build-out conditions, Burlwood Road is planned to provide access to the site. With the addition of site traffic, the overall intersection is expected to continue to operate with short delays in both peak hours.

Therefore, no improvements are recommended at this intersection for capacity reasons due to the proposed site.

Based on coordination with NCDOT and the Town, the existing section of Burlwood Road should be upgraded to provide a 20 foot asphalt pavement section (minimum).

6.4 LOWER ROCKY RIVER ROAD AND PIONEER MILL ROAD

Table 6.4 summarizes the LOS, control delay and 95th percentile queue lengths at the unsignalized, stop-controlled intersection of Lower Rocky River Road and Pioneer Mill Road.

Table 6.4 - Lower Rocky River Road and Pioneer Mill Road				
Condition	Measure	WB	NB	SB
		WBLR	NBTR	SBLT
AM Peak Hour				
2020 Existing	LOS (Delay)	A (9.4)	A (0.0)	A (1.5)
	Synchro 95th Q	7'	0'	2'
2024 Background	LOS (Delay)	B (10.2)	A (0.0)	A (2.4)
	Synchro 95th Q	16'	0'	5'
2024 Build-out	LOS (Delay)	B (10.4)	A (0.0)	A (2.3)
	Synchro 95th Q	17'	0'	5'
PM Peak Hour				
2020 Existing	LOS (Delay)	B (10.2)	A (0.0)	A (3.5)
	Synchro 95th Q	8'	0'	6'
2024 Background	LOS (Delay)	B (10.8)	A (0.0)	A (3.8)
	Synchro 95th Q	13'	0'	8'
2024 Build-out	LOS (Delay)	B (11.3)	A (0.0)	A (3.7)
	Synchro 95th Q	15'	0'	9'

As shown in **Table 6.4**, under 2020 existing conditions, the stop-controlled westbound approach of Pioneer Mill Road is expected to operate with short delays in both peak hours.

Under 2024 background conditions, the overall intersection is expected to continue to operate with short delays during both peak hours. With the addition of site traffic, the intersection is expected to continue to operate with short delays in both peak hours.

Therefore, no improvements are recommended at this intersection for capacity reasons due to the proposed site.

6.5 LOWER ROCKY RIVER ROAD AND HICKORY RIDGE ROAD

Table 6.5 summarizes the LOS, control delay and 95th percentile queue lengths at the unsignalized, stop-controlled intersection of Lower Rocky River Road and Hickory Ridge Road.

Table 6.5 - Lower Rocky River Road and Hickory Ridge Road					
Condition	Measure	EB		NB	SB
		EBL	EBR	NBLT	SBTR
AM Peak Hour					
2020 Existing	LOS (Delay)	B (11.3)		A (2.5)	A (0.0)
	Synchro 95th Q	7'	-	2'	0'
2024 Background	LOS (Delay)	C (16.4)		A (5.4)	A (0.0)
	Synchro 95th Q	29'	29'	11'	0'
2024 Build-out	LOS (Delay)	C (17.8)		A (5.4)	A (0.0)
	Synchro 95th Q	34'	34'	12'	0'
PM Peak Hour					
2020 Existing	LOS (Delay)	C (15.3)		A (2.2)	A (0.0)
	Synchro 95th Q	32'	-	5'	0'
2024 Background	LOS (Delay)	C (16.1)		A (3.1)	A (0.0)
	Synchro 95th Q	35'	35'	9'	0'
2024 Build-out	LOS (Delay)	C (18.5)		A (3.1)	A (0.0)
	Synchro 95th Q	47'	47'	10'	0'

As shown in **Table 6.5**, under 2020 existing conditions, the stop-controlled eastbound approach of Hickory Ridge Road is expected to operate with short delays in both peak hours.

As noted in **Section 4.2**, as committed by the Orchid Ridge development, construction of an eastbound right-turn lane with 100 feet of storage was included in both background and build-out conditions at this intersection.

With this improvement in place, under 2024 background conditions, the overall intersection is expected to continue to operate with short delays during both peak hours. With the addition of site traffic, the intersection is expected to continue to operate with short delays in both peak hours.

Therefore, no improvements are recommended at this intersection for capacity reasons due to the proposed site.

6.6 LOWER ROCKY RIVER ROAD AND SITE ACCESS

Table 6.6 summarizes the LOS, control delay and 95th percentile queue lengths at the proposed unsignalized, stop-controlled intersection of Lower Rocky River Road and Site Access.

Table 6.6 - Lower Rocky River Road and Site Access				
Condition	Measure	EB	NB	SB
		EBLR	NBLT	SBTR
AM Peak Hour				
2024 Build-out	LOS (Delay)	B (12.8)	A (0.5)	A (0.0)
	Synchro 95th Q	14'	1'	0'
PM Peak Hour				
2024 Build-out	LOS (Delay)	B (14.0)	A (1.4)	A (0.0)
	Synchro 95th Q	11'	3'	0'

This intersection provides access to the site via a full-movement connection to Lower Rocky River Road. As shown in **Table 6.6**, the stop-controlled eastbound approach of the intersection is expected to operate with short delays under build-out of the site. Therefore, no improvements are recommended at this intersection for capacity reasons due to the proposed site.

Based on the anticipated queues on the eastbound approach, an internal protected stem of 100 feet is recommended.

7.0 Auxiliary Turn Lane Warrants

Warrants for additional turn-lane improvements for unsignalized intersection beyond those necessary for capacity were determined based on a review of the figure titled 'Warrant for Left and Right-Turn Lanes' found on page 80 in the *NCDOT Policy On Street And Driveway Access to North Carolina Highways*. The results of the warrants for left and right-turn lanes under 2024 background and build-out conditions are summarized by intersection below and included in the **Appendix**.

Lower Rocky River Road and Pine Grove Church Road

2024 Background Conditions

- Southbound left-turn lane along Lower Rocky River Road with a minimum storage length of 300 feet

2024 Build Conditions

- Southbound left-turn lane along Lower Rocky River Road with a minimum storage length of 300 feet

Since the southbound left-turn lane is warranted in both background and build-out conditions, it is not recommended to be constructed by the proposed development.

Lower Rocky River Road and Pioneer Mill Road

2024 Background Conditions

- Southbound left-turn lane along Lower Rocky River Road with a minimum storage length of 100 feet

2024 Build Conditions

- Southbound left-turn lane along Lower Rocky River Road with a minimum storage length of 100 feet

Since the southbound left-turn lane is warranted in both background and build-out conditions, it is not recommended to be constructed by the proposed development.

Lower Rocky River Road and Hickory Ridge Road

2024 Background Conditions

- Southbound right-turn lane along Lower Rocky River Road with a minimum storage length of 75 feet
- Northbound left-turn lane along Lower Rocky River Road with a minimum storage length of 100 feet

2024 Build Conditions

- Southbound right-turn lane along Lower Rocky River Road with a minimum storage length of 75 feet
- Northbound left-turn lane along Lower Rocky River Road with a minimum storage length of 100 feet

Since both turn lanes are warranted in both background and build-out conditions, it is not recommended to be constructed by the proposed development.

Lower Rocky River Road and Site Access**2024 Build Conditions**

- Southbound right-turn lane along Lower Rocky River Road with a minimum storage length of 50 feet
- Northbound left-turn lane along Lower Rocky River Road with a minimum storage length of 50 feet

A minimum storage length of 100 feet is typically required for auxiliary turn lanes by NCDOT. Therefore, a southbound right-turn lane and a northbound left-turn lane each with a minimum of 100 feet of storage are recommended. Per NCDOT and the Town, a three-lane section will be required along Lower Rocky River Road between Pioneer Mill Road and the Site Access.

Based on coordination with NCDOT and the Town, the following turn lanes will also be required:

- Northbound left-turn lane with 100 feet of storage along Lower Rocky River Road onto Burlwood Road
- Southbound left-turn lane with 150 feet of storage along Lower Rocky River Road onto Pine Grove Church Road

8.0 Crash Data Analysis

Crash data was obtained at study intersections for crashes that occurred between October 1, 2017 and September 30, 2020. Over this three-year period, 20 total crashes were reported at the five study intersections. The breakdown of crashes at these four study intersections by severity, frequency, and accident type can be seen the tables below.

Table 8.1 – Crash Severity Summary

Crash Type	Number of Crashes
Fatal Crashes	0
Class A	0
Class B	1
Class C	6
Property Damage Only	13
Total	20

Table 8.1 above displays the total number of crashes by severity type from most to least severe. As shown, there were no fatal or Class A crashes reported in the study area intersections over the past three years. 'Class A' incidents are crashes in which serious injury is suspected, which can include significant loss of blood or broken bones. 'Class B' incidents are crashes in which minor injury is suspected, such as bruises or minor cuts. There was one of these crash types within the study area reported over the three years. There were 6 'Class C' crashes reported, which are defined as crashes wherein possible injuries occur. Possible injuries are injuries reported by the person or indicated by his/her behavior, but no wounds or injuries are physically present, such as limping or complaint of neck pain. There were 13 crashes in which only property damage occurred, meaning no injury was reported in 65% of the recorded crashes at the study intersections.

Table 8.2 – Accident Frequency Summary

Location	Crashes/100 MEV
Lower Rocky River Road and Rocky River Road	61.35
Lower Rocky River Road and Pine Grove Church Road	57.97
Lower Rocky River Road and Burlwood Road	24.04
Lower Rocky River Road and Pioneer Mill Road	182.37
Lower Rocky River Road and Hickory Ridge Road	19.84
Average	61.67

Shown in **Table 8.2** are the accident frequency rates for each study intersection, reported in crashes per 100 million entering vehicles (MEV). Their rates resulted in a weighted average crash rate of 61.67 crashes per 100 MEV, with the highest rate occurring at the intersection of Lower Rocky River Road and Pioneer Mill Road.

Table 8.3 – Accident Type Summary

Crash Type	Lower Rocky River Road and Rocky River Road	Lower Rocky River Road and Pine Grove Church Road	Lower Rocky River Road and Burlwood Road	Lower Rocky River Road and Pioneer Mill Road	Lower Rocky River Road and Hickory Ridge Road
Backing Up				1	
Fixed Object	2	2		4	
Left-Turn, Same Roadway	1				
Other Non-Collision					1
Ran off Road - Straight				1	
Ran off Road - Right	1	1			
Rear End, Slow or Stop	4	1			
Sideswipe, Same Direction			1		
Total	8	4	1	6	1

As seen in **Table 8.3**, at the five study intersections, the most common crash type was a collision caused by a fixed object, with 40% of crashes. A majority of these reported crashes were collisions with a ditch, which could be indicative of run-off the road crashes. The second most common crash type was a rear end collision caused by slowing or stopping. This crash type is often associated with mainline traffic along a corridor with unsignalized turning movements with the lack of turn lanes onto side-streets.

9.0 Mitigation Improvements

Based on the capacity analyses performed at each of the identified study intersections, the following improvements have been identified to mitigate the impact of the proposed development on the adjacent street network:

Lower Rocky River Road and Rocky River Road

- Construction of a westbound left-turn lane along Rocky River Road with a minimum of 250 feet of storage.
- Implementation of permitted-overlap phasing on the northbound right-turn lane.

Lower Rocky River Road and Pine Grove Church Road

- Construction of a westbound right-turn lane along Pine Grove Church Road with a minimum of 100 feet of storage.
- Construction of a southbound left-turn lane along Lower Rocky River Road with a minimum of 150 feet of storage.

Lower Rocky River Road and Burlwood Road

- Construction of a northbound left-turn lane along Lower Rocky River Road with a minimum of 100 feet of storage.
- Upgrade the existing section of Burlwood Road to provide a 20 foot asphalt pavement section (minimum).

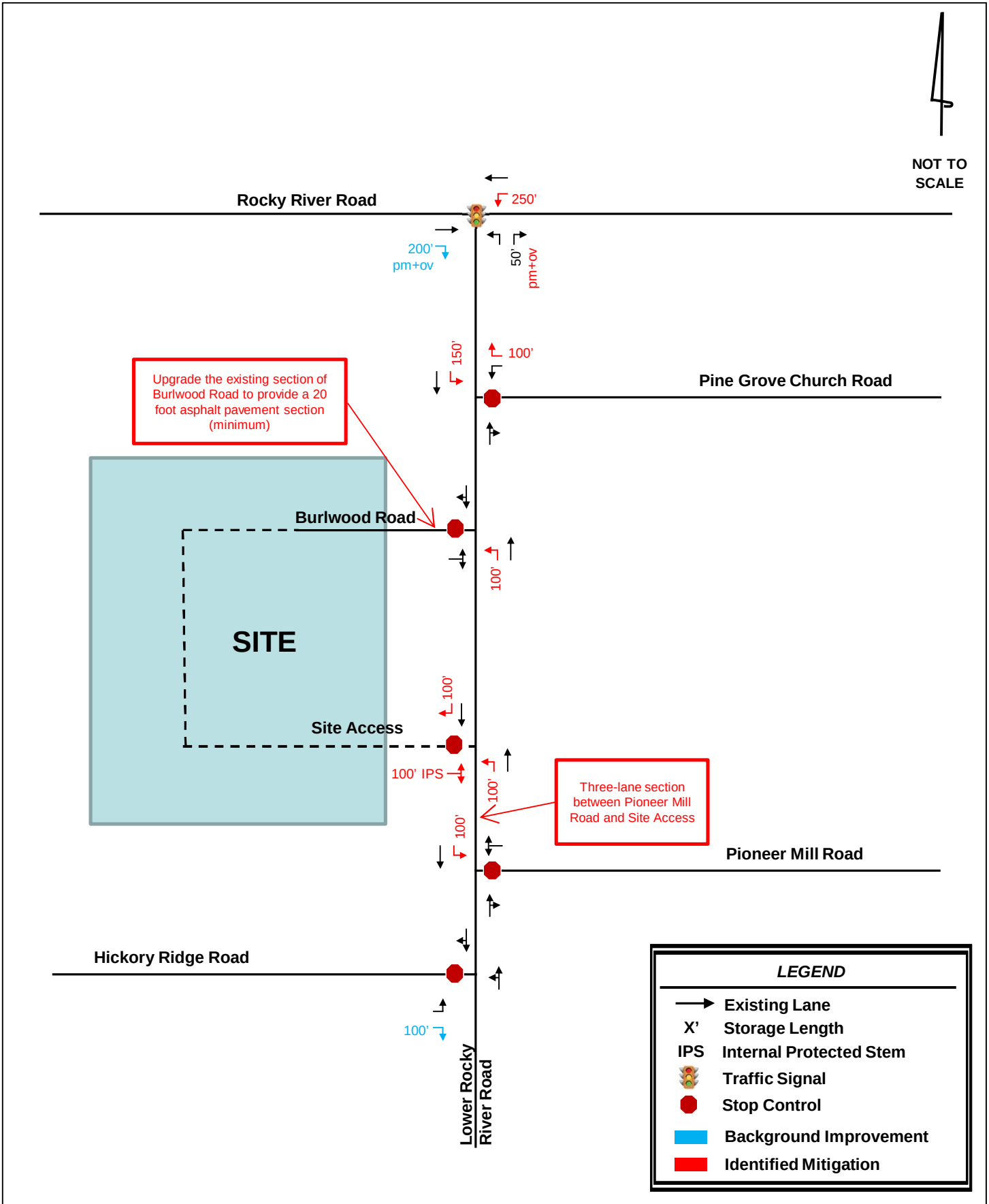
Lower Rocky River Road and Pioneer Mill Road

- Construction of a southbound left-turn lane along Lower Rocky River Road with a minimum of 100 feet of storage.
- Construction of a three-lane section along Lower Rocky River Road between Pioneer Mill Road and the Site Access.

Lower Rocky River Road and Site Access

- Construction of the eastbound approach with one ingress & one egress lane and an internal protected stem of 100 feet.
- Construction of a southbound right-turn lane along Lower Rocky River Road with a minimum storage length of 100 feet.
- Construction of a northbound left-turn lane along Lower Rocky River Road with a minimum storage length of 100 feet.
- Construction of a three-lane section along Lower Rocky River Road between Pioneer Mill Road and the Site Access.

The mitigation improvement identified within the study area are shown in **Figure 9.1**. The improvements shown on this figure are subject to approval by NCDOT and the Town of Harrisburg. All additions and attachments to the State and Town roadway system shall be properly permitted, designed and constructed in conformance to standards maintained by the agencies.



APPENDIX



TOWN OF HARRISBURG

Agenda Item Details

Title:

H2021-05 (R) – Conditional Rezoning and Zoning Map Amendment of Properties at the Corner of Rocky River Rd and Hickory Ridge, Shoppes at Hickory Ridge (Blume Corner).

Presenting Personnel:

Sushil Nepal, Planning & Economic Development Director

Suggested Motion or Action:

If approved, the following motion is suggested:

To approve the conditional rezoning request from Rural Estate (RE) to Conditional Neighborhood Commercial/Office (CZ-B1) as requested by the applicant for the related property in application H2021-05 (R).

If denied, the following motion is suggested:

To deny the conditional rezoning request from Rural Estate (RE) to Conditional Neighborhood Commercial/Office (CZ-B1) as requested by the applicant for the related property in application H2021-05 (R).

Description/Background:

ESP Associates, on behalf of the the property owners and developers of parcel 55164783470000 has submitted a request to rezone approximately 14.281 acres of land located southeast corner of the intersection of Rocky River Road and Hickory Ridge Road (Blume Corner). The applicant proposes to develop a mixed-use development with five commercial/office buildings and 55 attached residential units (town homes). To achieve this, the applicant is requesting that the property be rezoned from RE (Residential Estate) to CZ-B1 (Conditional Zoning Neighborhood Commercial/Office). The proposed gross density of the residential portion of the site is 6.19 dwelling units per acre.

The property is in the Town of Harrisburg corporate limits and therefore an Annexation is not required. A Town Council public hearing will be held to take action on the rezoning upon recommendation action by the Planning and Zoning Board.

A staff report is attached for more information and a site plan is submitted for your consideration. If approved, staff will continue reviewing the site plan in accordance with our Unified Development Ordinance (UDO) during the subsequent Preliminary Plat and Construction Document (CDs) reviews. Staff is recommending approval of the rezoning request with conditions included in the staff report.

Recommendation:

With the conditions proposed, the rezoning request is consistent with the Harrisburg Area Land Use Plan (HALUP) and the Unified Development Ordinance (UDO). Planning and Zoning Department staff recommends the approval of the rezoning request with conditions.

Fiscal Impact:

None.

Attachments:

1. H_2021_05_R_Application for Rezoning Map Amendment
2. H_2021_05_R_Site Map
3. H_2021_05_R Staff Report PB
4. H_2021_05_R_Rezoning Site Plan
5. H_2021_05_R_Neighborhood Meeting Summary
6. H_2021_05_R_TIA Report



APPLICATION FOR ZONING MAP AMENDMENT

The following steps are required in order for your application to be considered complete.

Incomplete applications will be returned to the applicant and will not be processed.

1. Schedule a pre-application meeting with staff.
2. Submit a completed application for an amendment to the official zoning map. All applications must include:
 - a. A list of all adjacent property owners (include owner name, address, and Parcel Identification Number)
 - b. A recent survey or legal description of the property or area to be rezoned
 - c. A copy of the letter, minutes, and the sign-up sheet from the Neighborhood Meeting
 - d. Copies of the Traffic Impact Analysis (TIA), proposed site plan, landscape plan, and proposed building elevations (applicability determined at pre-application meeting with staff)
3. Submit cash, checks, or money orders made payable to the Town of Harrisburg for all fees listed in the pre-application checklist.

Overview of the Rezoning Process:

1. Hold a pre-application meeting with staff to discuss your rezoning request and the map amendment process.
2. Hold a **neighborhood meeting** with the adjacent property owners. All adjacent property owners must be contacted and given an opportunity to meet with the applicant at a meeting established at a reasonable time. No member of the Town decision-making entity may participate in this meeting.
3. Submit a Zoning Map Amendment application to the Town of Harrisburg Planning Department. All applications must be submitted by the third Tuesday of the Month to go before the Planning and Zoning Board on the following month. NOTE: If the request is a Conditional Zoning request, complete and submit, with this application, a Conditional Rezoning Application.
4. Planning staff will review your application and subsequent information, prepare a staff report for the Board and take your request to the Planning and Zoning Board for a recommendation to the Town Council. Planning Board meetings are held on the third Tuesday of every month at 7:00 PM.
5. Once the Planning and Zoning Board has made a recommendation, staff will notify the adjacent property owners of the public hearing, post a sign on the property, and place announcements of the hearing in the local newspaper.
6. Town Council meetings are held on the second Monday of every month at 7:00 PM. At this meeting the Council will hold a public hearing and may vote on your request. Meetings are held at the Harrisburg Town Hall located at 4100 Main Street, Suite 101.

Questions: Contact the Town of Harrisburg Planning Department with any questions regarding rezonings in the Town of Harrisburg. Staff can be reached at 704-455-0709.



HarrisburgNC

The right side of opportunity

Subject Property Information

1. Street Address 8479 Rocky River Road
2. PIN(s) (10 digit#) 5516 -- 478 -- 347 ; -- --
3. Deed Reference Book 2405 Page 330
4. Township # 1

Description of Subject Property

5. Size (square feet or acreage) 15.461
6. Street Frontage (feet) 936 ft on Hickory Ridge Rd, 782 ft on Rocky River Rd.
7. Current Land Use RE
8. Surrounding Land Use and Zoning Classification

North: Zoning LDR Land Use Single family

South: Zoning CZ-RL Land Use Single family

East: Zoning CZ-RL Land Use Single family

West: Zoning CR Land Use Vacant Land

9. Request to Change Zoning From RE to CZ - B1

10. Is this a request for a Conditional Rezoning? ☒ YES ☐ NO

(If YES, you must also submit an application for a Conditional Rezoning)

11. Purpose for Request: To rezone the property to allow for
a townhome & neighborhood commercial development.



HarrisburgNC

The right side of opportunity

Owner/Agent/Applicant Information

It is understood by all parties hereto that while this application will be carefully considered and reviewed, the burden of providing its need and providing all required evidence rests with the below named petitioner.

I do hereby certify that all information which I have provided for this application is, to the best of my/our knowledge, correct.

12. Property Owner

Address

Phone

Fax

Email:

Signature

13. Agent (if any)

Address

Phone

Fax

Email

Signature

14. Applicant (if any)

Address

Phone

Fax

Email

Signature

True Summit Capital, Inc.

1815 Back Creek Dr.

980. 721. 6636

midlibj@truesummitcapital.com

[Handwritten Signature]

NOTE: If multiple parcels are involved in a request, property owners must sign an application identifying the individual parcel(s) represented. Each parcel included in the request must be accounted for in the application process for the application to be considered complete.



HarrisburgNC

The right side of opportunity

APPLICATION FOR CONDITIONAL REZONING

Applications for a Conditional District must be accompanied by an application for a Zoning Map Amendment.

1. Please submit fifteen (15) copies of a complete development plan in conformance with Appendix B, Section B-4 of the UDO (all conditional rezoning applications shall include a site specific development plan which, if approved, shall be binding on the property in question). If approved, a zoning site plan review and approval will be required to receive a zoning compliance permit. For specific requirements, please see the form entitled "Site Plan Requirements".
2. Please list the specific permitted land use(s) that you are proposing. Land use(s) shall be chosen from Article 4.6 in the Harrisburg UDO titled "Use Regulations" and shall correspond to the Zoning District requested.

Single-family, attached
Child care Center
Accounting & Tax Services
Banks
Clothing Alterations/Repair
Footwear repair
Dry Cleaning & Laundry Services
Electronic repair (ex: phone repair)
Hair, Skin, Nail Care Services
Architectural/Engineering Services

Interior Design Services
Legal & Financial Services
Medical/Healthcare Offices
Petcare Services (ex: animal hospital)
Real Estate Office
Art Dealer
Bake Goods/Snack Shop
Book/Music Store
Brewery
Clothing Store
Florist

3. Please list any specific conditions that you would be willing to impose as part of this application (example: no outside storage permitted on-site, increased buffer width, etc.).

- Gast Stations & automobile-related uses are prohibited
- Maximum number of Townhome units that can be rented is 10% of total units
- Berm along southern property boundary will be enhanced
- Fence to be installed on eastern side of new public Row
- Vinyl will not be allowed as a primary building material

(Continued)





APPLICATION FOR CONDITIONAL REZONING

Applications for a Conditional District must be accompanied by an application for a Zoning Map Amendment.

1. Please submit fifteen (15) copies of a complete development plan in conformance with Appendix B, Section B-4 of the UDO (all conditional rezoning applications shall include a site specific development plan which, if approved, shall be binding on the property in question). If approved, a zoning site plan review and approval will be required to receive a zoning compliance permit. For specific requirements, please see the form entitled "Site Plan Requirements".
2. Please list the specific permitted land use(s) that you are proposing. Land use(s) shall be chosen from Article 4.6 in the Harrisburg UDO titled "Use Regulations" and shall correspond to the Zoning District requested.

Continued

Gift, novelty, Sovenir store

Health club & fitness uses

Jewelry, Luggage store

Pet Supply store

Pharmacies, health, personal care stores

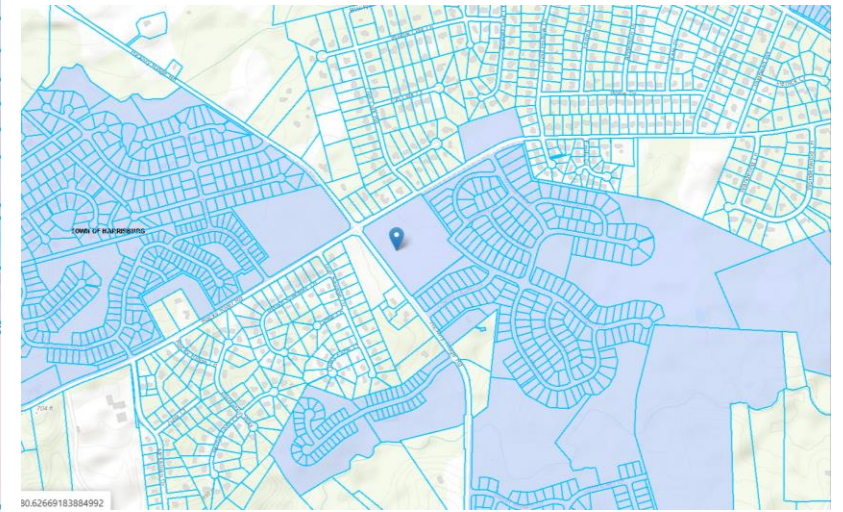
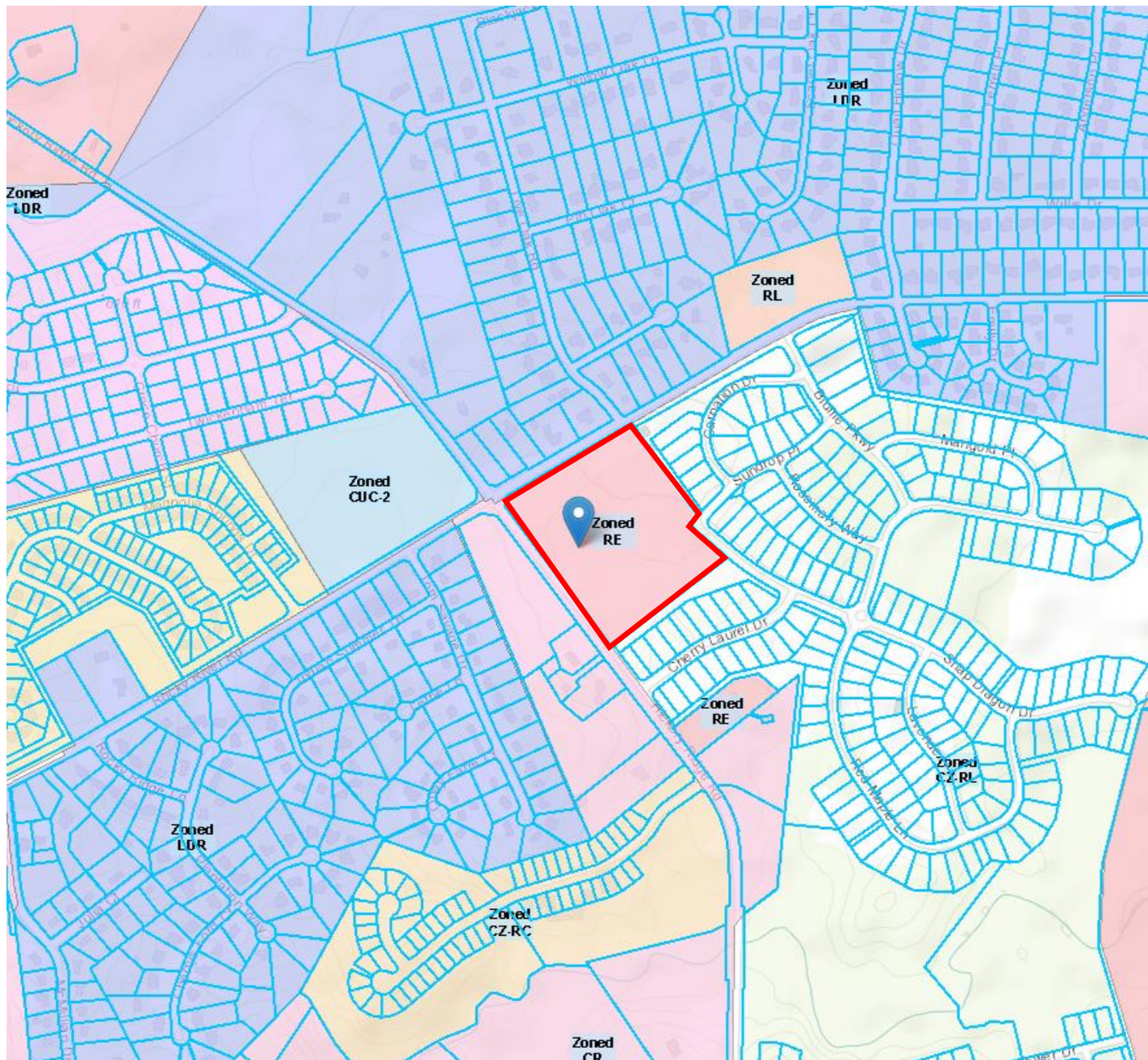
Restaurants (dine-in & carry out)

Furniture / Lighting showroom

Coffee Shop (restaurant)

Ice Cream shop (restaurant)

3. Please list any specific conditions that you would be willing to impose as part of this application (example: no outside storage permitted on-site, increased buffer width, etc.).



H2021-05(R) Rezoning Request

Parcel Identification Number:
5516-47-8347

Applicant: True Summit Capital
Current Zoning: Rural Estate (RE)
Requested Rezoning: Conditional Neighborhood
Commercial (CZ-B-1)

Map Created: July 2021





Town of Harrisburg
Planning and Economic Development Department
Rezoning Staff Report

DATE: July 13, 2021

SUBJECT: Shoppes at Hickory Ridge (Blume Corner)

Request H-2021-05-(R): To rezone approximately 14.281 acres from RE (Rural Estate) to CZ-B-1 (Conditional Zoning Neighborhood Commercial/Office)

Location: The subject properties are located on the southeast corner of the intersection of Rocky River Road and Hickory Ridge Road (PIN 5516-47-8347)

Applicant: True Summit Capital and Pulte Homes, represented by ESP Associates

Staff Report Prepared by: Craig Thomas, Senior Planner
Planning and Economic Development Dept.

Neighborhood Meeting: Held May 20, 2021

BACKGROUND:

Area: ±14.281 acres Total

Existing Land Use: Vacant/Single-Family Residential

Zoning within 500 feet: North - Low Density Residential (LDR), Cabarrus County
South - Conditional Low Density Residential (CZ-RL), Town
East - Conditional Low Density Residential (CZ-RL), Town
West - Countryside Residential (CR), County

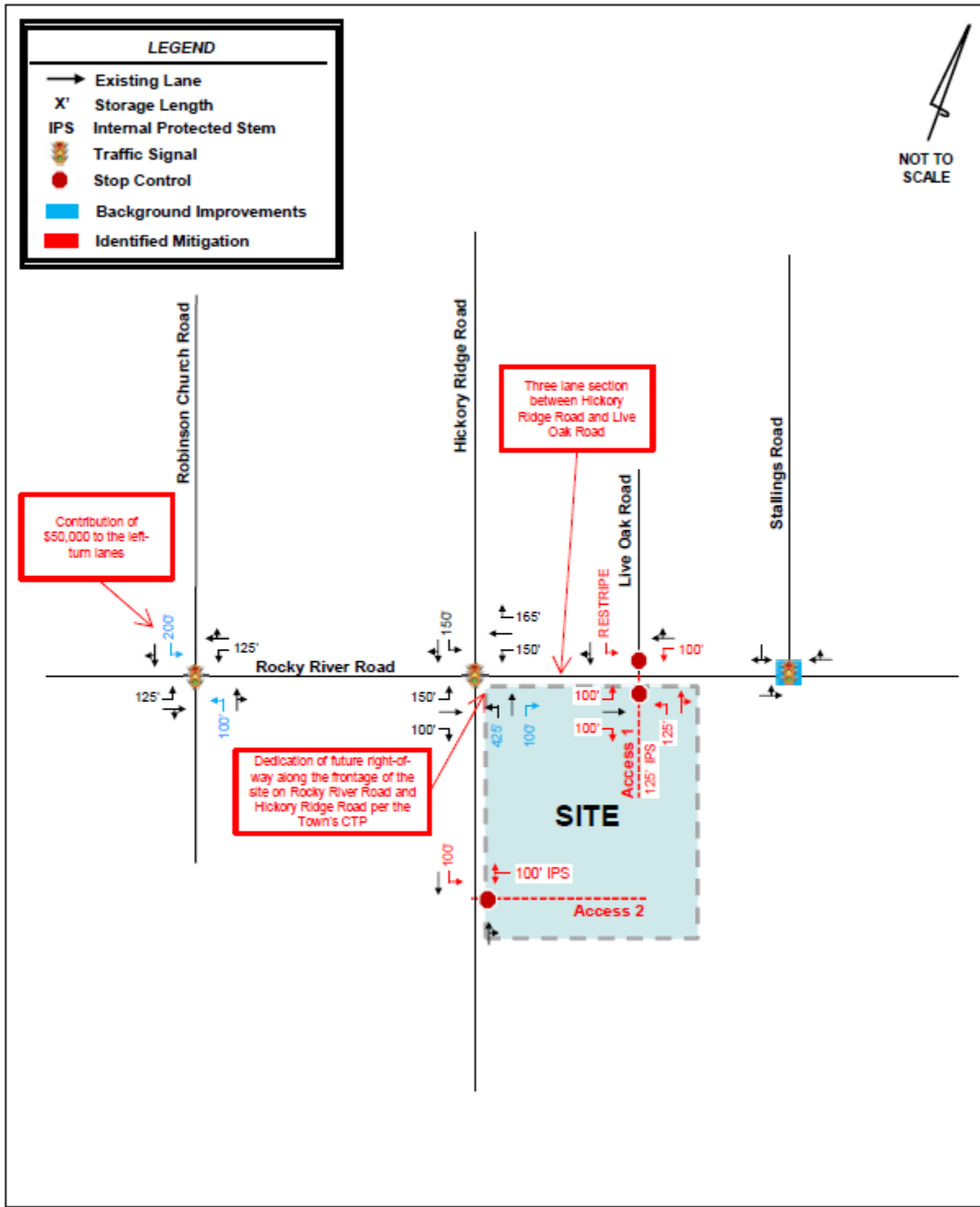
Land Uses within 500 feet: North - Single-family Residential, County
South - Single-family Residential, Town
East - Single-family Residential, Town
West - Single-family Residential, County

APPLICATION SUMMARY:

- The applicant proposes to develop a mixed-use development with five commercial buildings and 55 attached residential units (town homes). To achieve this, the applicant is requesting that the property be rezoned from RE (Rural Estate) to CZ-B1 (Conditional Zoning Neighborhood Commercial/Office) district.
- The property is 14.281 acres, of which 4.65 acres is commercial and 8.89 acres is residential. The proposed residential density of the site is 6.19 dwelling units per acre. The maximum residential density in a B1 District needs to conform to Residential Compact (RC) district which has maximum density of 15 units/acre. Upon approval of this rezoning, the density will be capped at 6.19 units/acre and the site plan will be attached with the land.
- The applicant proposes the dedication of 1.71 acres of open space, including 1.38 acres of active open space, as part of the development. A fee-in-lieu will be paid towards the Public Open Space requirements.
- As a conditional zoning request, the applicant has submitted a site plan along with the request for rezoning, which is attached for your consideration.
- The property is within the town limits of the Town of Harrisburg and does not require Annexation.
- The applicant agrees to install the following road improvements per the Traffic Impact Analysis (TIA) completed for the project (see map on the following page):
 - **Robinson Church Road and Rocky River Road:**
 - Contribution of \$50,000 to the left-turn lanes along Robinson Church Road
 - **Hickory Ridge Road and Rocky River Road:**
 - Dedication of future right-of-way along the frontage of the site on Rocky River Road and Hickory Ridge Road per the Town's CTP.
 - **Rocky River Road and Live Oak Road/Access 1:**
 - Restripe the southbound approach of Live Oak Road to include a separate left-turn lane with a minimum of 100 feet of storage and a shared through-right lane.
 - Construction of northbound approach of Access 1 with one ingress and two egress lanes and an internal protected stem of 125 feet.
 - Construction of an eastbound right-turn lane along Rocky River Road with a minimum of 100 feet of storage.
 - Construction of an eastbound left-turn lane along Rocky River Road with a minimum of 100 feet of storage. This should create a three-lane section along Rocky River Road, between Hickory Ridge Road and Live Oak Road.
 - Construction of a westbound left-turn lane along Rocky River Road with minimum of 100 feet storage.

- **Hickory Ridge Road and Access 2:**

- Construction of southbound left-turn lane along Hickory Ridge Road with minimum of 100 feet storage.
- Construction of the westbound approach of Access 2 with one ingress and one egress lane and an internal protected stem of 100 feet.



APPROVAL CRITERIA:

1. The size of the tract in question;

The subject property is approximately 14.281 acres in size.

2. Whether the proposal conforms with and is in furtherance of the implementation of the goals and policies of the Comprehensive Plan, other adopted plans, and the goals, objectives and policies of the Ordinance;

Per the Unified Development Ordinance, the intent of the proposed district depicted on the submitted site plan is as follows:

***B-1:** The B-1 district is established to provide small areas for office and professional services combined with shopfront retail uses. This district provides a balance of residential and non-residential land use opportunities. Location of B-1 districts should include lots located at the intersections of collector roads and thoroughfares.*

Per the Harrisburg Area Land Use Plan, the subject property is located in a node designated on the future land use map as **Mixed Use Node D**. The description of Mixed Use Node D is as follows:

“This node will have a smaller non-residential component comprised primarily of neighborhood-serving uses (convenience retail, small restaurants, and service uses). Adjoining townhome and small-lot single family home developments will be designed with pedestrian connections to the center.”

Based on the description of the Mixed Use Node, the proposed town homes, proximity to neighborhood oriented commercial development, and sidewalk connections would meet the intent that has been set for this area in the Land Use Plan.

With regard to the overall goals of the Land Use Plan, **recommendation LU-5** states that the Town should “Expand Housing Options” to appeal to a broad range of audiences just starting out or looking to downsize with affordable high-quality products not currently available.

Recommendation LU-7 of the Plan recommends consistency between the Town’s zoning regulations and the adopted Future Land Use Map. A table included as part of this goal establishes the “appropriate” zoning districts to use when making zoning decisions based on the Future Land Use Map. The map designates this area as Mixed Use and a B-1 zoning classification is deemed a suitable district.

3. The benefits or detriments for the owner, neighbors and surrounding community;

The benefits to the owner of the property would be that single-family attached residential development at the proposed density of 6.19 dwelling units per acre and accompanying commercial properties would provide services not currently available in the area and lessen the dependency on automobile traffic for nearby residents.

As with most developments, the addition of residential units and commercial properties increase trip generations compared to what's there today. Certain intersection improvements and road widening have been required as part of the Traffic Impact Analysis as a means to mitigate and minimize the impact of additional trip generations in the area associated with this development.

4. Whether the proposed request is in compliance with the adequate public facilities criteria;

a. Utilities:

Utilities are available in this area, and are sufficient to meet the needs of this property. Water lines exist along Rocky River Road and Hickory Ridge Road. Sewer access is available from adjacent residential developments. Any utility line extensions or upgrades necessary to serve this development will be the responsibility of the developer.

b. Transportation:

A TIA was complete based on the size of the development and the anticipated amount of traffic generated by the project. All traffic improvements are detailed and depicted on a map in the Application Summary (above) and will be completed and delivered by the proposed project, as per that TIA.

c. Safety and Sanitation Services:

Adequate police, fire, and sanitation services are available for the proposed use, and will be provided upon annexation.

d. Schools:

Per Cabarrus County, the APF Ordinance for schools is currently not being enforced after a ruling by the NC Supreme Court. However, Cabarrus County Schools does still review the capacity of the K-12 schools that this development will feed into and provides future capacity numbers based on the units proposed. For this site, Cabarrus County has provided the following information:

Current Capacity:

Elementary (Hickory Ridge ES)	<u>88%</u>
Middle (Hickory Ridge MS) -	<u>93%</u>
High (Hickory Ridge HS) -	<u>112%</u>

Future Capacity Based on Unbuilt Lots and Including this Request:

Elementary (Hickory Ridge ES)	<u>89%</u>
Middle (Hickory Ridge MS) -	<u>94%</u>
High (Hickory Ridge HS) -	<u>112%</u>

As per Cabarrus County School, the Single-family homes in this development will generate upon full buildout an additional 8 elementary students, 4 middle school students, and 5 high school students.

5. The relationship of the uses envisioned under the new zoning and the uses currently present in adjacent tracts. The Commission shall consider the following:

- a. Whether the proposed zoning is compatible with the surrounding area or whether there will be adverse impacts on the capacity or safety of the portion of street network influenced by the rezoning, parking problems, or environmental impacts that the new use will generate such as excessive storm water runoff, water, air or noise pollution, excessive nighttime lighting or other nuisances;**

The proposed single-family attached development and density of the proposed development (6.19 dwelling units per acre) is slightly higher than surrounding land uses, but compatible considering the location at a major intersection that is designated as a mixed-use node. The stormwater generated will be managed internal to the site using stormwater control measures throughout the development. Several traffic improvements will be made as prescribed by the TIA (included in the Application Summary of this report).

- b. Any change of character in the area due to installation of public facilities, other zoning changes, new growth changes, deterioration, and development;**

Like all other development activity in this area, the development of this land would convert former vacant land into residential and commercial properties, while preserving appropriate area for open space.

- c. The zoning districts and existing land uses of the surrounding properties;**

The areas around this property are generally zoned for low to medium density residential use. The location at the intersection is designated for mixed-use node and provides a natural transition from residential to a mixture of neighborhood oriented commercial, office and residential use. Existing land use patterns in the area typically consist of low to medium density residential neighborhoods.

- d. Whether the subject property is suitable for the uses to which it has been restricted under the existing zoning classification;**

The property is suitable for the uses which it has been restricted to under the existing zoning classification.

- e. Whether the rezoning is compatible with the adjacent neighborhood, especially concerning neighborhood stability and character;**

As previously mentioned, the specific use of the property, single family attached homes and limited commercial, is consistent with surrounding neighborhoods and aligns with Harrisburg Area Land Use Plan (HALUP) mixed-use areas.

- f. The length of time the subject property has remained vacant as zoned (if applicable);**

This property has been vacant.

- g. Whether there is an adequate supply of land available in the subject area and the surrounding community to accommodate the zoning and community needs;**

Land supply is not a direct issue in this area.

- 6. Whether the existing zoning was in error at the time of adoption.**

The existing zoning was not in error at the time of adoption.

Furthermore, as a Conditional Zoning request, the Board must consider the following criteria:

- 7. The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and consistency with the purposes, goals, objectives, and policies of the current Land Use Plan.**

The rezoning application to B-1 district of the property, with the proposed density limitation, is consistent with the density and lot size standards established for the base B-1 Zoning District in the Unified Development Ordinance and Mixed Use Node in the Land Use Plan.

The development proposal accompanying the rezoning request would restrict permitted uses to single family attached residences, which are appropriate in this area.

- 8. The use(s) requested are among those listed as an eligible permitted or conditional use in the general use district as included in the rezoning request.**

The applicant is seeking for the following uses to be allowed in this Conditional Zoning District, certain uses are restricted as noted in the Conditions towards the end of this staff report and included on site plan:

- Single-Family Attached Residential
- Child Care Center
- Accounting and Tax Services
- Banks
- Clothing Alterations and Repair
- Footwear Repair
- Dry Cleaning and Laundry Services
- Electronic Repair

- Hair, skin, nail care services
- Architectural/Engineering Services
- Interior Design Services
- Legal and Financial Services
- Medical/Healthcare Offices
- Real Estate Office
- Art Dealer
- Bake Goods/Snack Shop
- Book/Music Store
- Florist
- Gift, Novelty, Souvenir Store
- Health Club
- Jewelry Store
- Restaurant (dine in only)

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

The applicant intends to work collaboratively with both Harrisburg town staff and the NC Department of Transportation in establishing appropriate intersection improvements for the development. Improvements include widening of Hickory Ridge Road and Rocky River Road, and turn lanes in both directions.

Landscaping buffers shown are adequate to meet the needs of the adjacent properties, and active open space is designated as part of the subdivision.

10. **The use limitations and conditions as proposed and/or imposed for the requested district can reasonably be implemented and enforced for the subject property.**

The conditions proposed and imposed for this district can be reasonably implemented on this site.

11. **When implemented the proposed and/or imposed use limitations and conditions will mitigate specific land development issues that would likely result if the subject property were zoned to accommodate all the uses and the minimum standards of the corresponding general zoning district. If any standards are proposed that are different from the underlying zoning district, the applicant must clearly demonstrate that the overall resultant project is greater than that which is typically allowed by the general district.**

All proposed conditions recommended by staff are to bring the site into conformance with applicable local and state regulations.

12. The applicant has agreed to accept the use limitations and conditions as proposed and/or imposed for the requested district.

The applicant will need to agree to all conditions listed in this staff report. Any additional conditions placed on this property will need the acceptance of the applicant before a decision can be made on this application.

13. For an approval, the Board must adopt a consistency statement that the amendment being considered is either consistent or inconsistent with the adopted land use plan and that the Board considers the action to be reasonable and in the public interest.

The Planning and Zoning Board will need to adopt a consistency statement when a recommendation or decision is made on this item.

APPROVAL WITH CONDITIONS:

The proposal is a conditional re-zoning request. Conditions may be imposed on the zoning action; staff recommends that the following conditions be placed on this project. Applicant agrees to the following:

1. Applicant agrees to obtain any and all applicable local, state, and federal permits required for development before any development activity can take place.
2. Applicant agrees to prohibit variety stores on the site, Variety store in this case shall mean any store that sells a combination of retail, grocery and household items and has an area greater than 5,000 sq. feet size.
3. Applicant agrees that all uses are limited to the permitted uses (P) outlined for B-1 zoning in the Harrisburg Unified Development Ordinance with the exception of gas stations, convenience stores and automobile related uses, which are prohibited under this conditional rezoning.
4. Applicant agrees to restrict primary cladding materials for all residential buildings to masonry or similar products; vinyl siding will not be used. Commercial buildings shall meet regulations set forth in Appendix E of the current Harrisburg Unified Development Ordinance (UDO) or equivalent UDO section at the time of Construction Document review/approval.
5. Applicant agrees that there will be no exposed concrete foundations and that cladding material must extend to the ground level on all sides of the homes.
6. Applicant agrees to limit the number of townhome rental units to 10% of allowable number of townhomes.
7. Applicant agrees that all stormwater control measures shall be wet ponds with fountain(s), with minimum depth of 10 feet over 25% of the permanent pool area.
8. Applicant agrees mailbox clusters shall meet ADA Standards at a minimum.

RECOMMENDATION:

With the proposed site plan and conditions proposed, the rezoning request is consistent with the Harrisburg Area Land Use Plan (HALUP) and the Unified Development Ordinance (UDO). Planning and Zoning Department staff supports approval of the rezoning request with conditions.

U:\2021 Projects\UJ\0261- Hickory Ridge Road Site (Pulse)\\$Submital Working Drawings\2021_06-xx_Rezoning 2nd Sheet\Sheets\N76-TDS.dwg, TDS.mxd

1. GENERAL PROVISIONS:

- A. SITE LOCATION:
- THESE DEVELOPMENT STANDARDS FORM A PART OF THE REZONING PLAN ASSOCIATED WITH THE REZONING PETITION FILED BY TRUE SUMMIT CAPITAL ("PETITIONER") TO ACCOMMODATE THE DEVELOPMENT OF UP TO FIFTY-FIVE (55) SINGLE-FAMILY ATTACHED DWELLING UNITS AND 31,500 SQUARE FEET OF COMMERCIAL AND OFFICE USES AS GENERALLY DEPICTED ON THE REZONING PLAN. THE PROPOSED DEVELOPMENT WILL BE ON AN APPROXIMATELY 14.285 ACRE SITE LOCATED ON HICKORY RIDGE ROAD (THE "SITE").
- B. ZONING DISTRICTS/ORDINANCE:
- DEVELOPMENT OF THE SITE WILL BE GOVERNED BY THE REZONING PLAN AS WELL AS THE APPLICABLE PROVISIONS OF THE HARRISBURG ZONING ORDINANCE (THE "ORDINANCE"). UNLESS THE REZONING PLAN ESTABLISHES MORE STRINGENT STANDARDS THE REGULATIONS ESTABLISHED UNDER THE ORDINANCE FOR THE B-1 ZONING CLASSIFICATION SHALL GOVERN.
- C. GRAPHICS AND ALTERATIONS:
- THE SCHEMATIC DEPICTIONS LOTS, SIDEWALKS, STRUCTURES AND BUILDINGS, BUILDING ELEVATIONS, DRIVEWAYS, STREETS AND OTHER DEVELOPMENT MATTERS AND SITE ELEMENTS (COLLECTIVELY THE "DEVELOPMENT/SITE ELEMENTS") SET FORTH ON THE REZONING PLAN SHOULD BE REVIEWED IN CONJUNCTION WITH THE PROVISIONS OF THESE DEVELOPMENT STANDARDS. THE LAYOUT, LOCATIONS, SIZES AND FORMULATIONS OF THE DEVELOPMENT/ SITE ELEMENTS DEPICTED ON THE REZONING PLAN ARE GRAPHIC REPRESENTATIONS OF THE DEVELOPMENT/SITE ELEMENTS PROPOSED. CHANGES TO THE REZONING PLAN NOT ANTICIPATED BY THE REZONING PLAN WILL BE REVIEWED AND APPROVED AS ALLOWED BY ORDINANCE.
 - SINCE THE PROJECT HAS NOT UNDERGONE THE DESIGN DEVELOPMENT AND CONSTRUCTION PHASES, IT IS INTENDED THAT THIS REZONING PLAN PROVIDE FOR FLEXIBILITY IN ALLOWING SOME ALTERATIONS OR MODIFICATIONS FROM THE GRAPHIC REPRESENTATIONS OF THE DEVELOPMENT/SITE ELEMENTS. THEREFORE, THERE MAY BE INSTANCES WHERE MINOR MODIFICATIONS WILL BE ALLOWED WITHOUT REQUIRING THE ADMINISTRATIVE AMENDMENT PROCESS PER THE ORDINANCE. THESE INSTANCES WOULD INCLUDE CHANGES TO GRAPHICS IF THEY ARE MINOR AND DON'T MATERIALLY CHANGE THE OVERALL DESIGN INTENT DEPICTED ON THE REZONING PLAN.
 - THE PLANNING DIRECTOR WILL DETERMINE IF SUCH MINOR MODIFICATIONS ARE ALLOWED PER THIS AMENDED PROCESS, AND IF IT IS DETERMINED THAT THE ALTERATION DOES NOT MEET THE CRITERIA DESCRIBED ABOVE, THE PETITIONER SHALL THEN FOLLOW THE ADMINISTRATIVE AMENDMENT PROCESS OF THE ORDINANCE; IN EACH INSTANCE, HOWEVER, SUBJECT TO THE PETITIONER'S APPEAL RIGHTS SET FORTH IN THE ORDINANCE.

2. PERMITTED USES:

- A. RESIDENTIAL USES: THE SITE MAY BE DEVELOPED WITH UP TO FIFTY-FIVE (55) SINGLE FAMILY ATTACHED RESIDENTIAL UNITS.
- B. NON-RESIDENTIAL USE: THE SITE MAY BE DEVELOPED WITH UP TO 31,500 SQUARE FEET OF USES PERMITTED IN THE B-1 ZONING DISTRICT. THE FOLLOWING USES SHALL BE PROHIBITED:
- VARIETY STORES (VARIETY STORE SHALL MEAN ANY STORE THAT SELLS A COMBINATION OF RETAIL, GROCERY AND HOUSEHOLD ITEMS IN EXCESS OF 5,000 SQUARE FEET)
 - GAS STATIONS
 - CONVENIENCE STORES AND AUTOMOBILE RELATED USES

3. ACCESS AND TRANSPORTATION:

- I. PROPOSED ACCESS:
- ACCESS TO THE SITE WILL BE FROM HICKORY RIDGE ROAD AS GENERALLY DEPICTED ON THE REZONING PLAN.
 - THE PLACEMENT AND CONFIGURATION OF THE VEHICULAR ACCESS POINTS ARE SUBJECT TO ANY MINOR MODIFICATIONS REQUIRED TO ACCOMMODATE FINAL SITE DEVELOPMENT AND CONSTRUCTION PLANS AND TO ANY ADJUSTMENTS REQUIRED FOR APPROVAL BY THE TOWN OF HARRISBURG AND/OR NCDOT IN ACCORDANCE WITH APPLICABLE PUBLISHED STANDARDS.
 - THE PETITIONER SHALL INSTALL PHASED TRANSPORTATION IMPROVEMENTS PER THE APPROVED TRAFFIC IMPACT ANALYSIS.
 - THE OVERALL STREET NETWORK IS CONCEPTUAL IN NATURE AND MAY BE ADJUSTED DURING THE PERMITTING PROCESS SO LONG AS THE PROVISIONS OF THE ORDINANCE RELATED TO CONNECTIVITY, BLOCK LENGTHS AND LINKS ARE ADHERED TO.
 - THE SITE SHALL MEET THE PROVISIONS OF THE ORDINANCE RELATED TO CONNECTIVITY.
- II. PROPOSED IMPROVEMENTS:
- THE PETITIONER PLANS TO PROVIDE OR CAUSE TO BE PROVIDED ON ITS OWN OR IN COOPERATION WITH OTHER PARTIES WHO MAY IMPLEMENT PORTIONS OF THE IMPROVEMENTS, THE IMPROVEMENTS SET FORTH IN THE APPROVED TRANSPORTATION IMPACT STUDY SUBJECT TO THE PROVISIONS SET FORTH IN SECTION III.

III. STANDARDS, PHASING AND OTHER PROVISIONS:

- TOWN OF HARRISBURG AND NCDOT STANDARDS: ALL OF THE PUBLIC ROADWAY IMPROVEMENTS WILL BE SUBJECT TO THE STANDARDS AND CRITERIA OF THE TOWN OF HARRISBURG AND/OR NCDOT (AS IT RELATES TO THE ROADWAY IMPROVEMENTS WITHIN THEIR RESPECTIVE ROAD SYSTEM AUTHORITY). IT IS UNDERSTOOD THAT AN ALTERNATE PAYMENT SCHEDULE IS NOT PERMITTED AND ROADWAY CROSS SECTIONS WILL BE REVIEWED AND APPROVED AT THE CONSTRUCTION DOCUMENT PHASE. IT IS ALSO UNDERSTOOD THAT SUCH IMPROVEMENTS MAY BE UNDERTAKEN BY THE PETITIONER ON ITS OWN OR IN CONJUNCTION WITH OTHER DEVELOPMENT OR ROADWAY PROJECTS TAKING PLACE WITHIN THE AREA, BY WAY OF A PRIVATE/PUBLIC PARTNERSHIP EFFORT OR OTHER PUBLIC SECTOR PROJECT SUPPORT.
- PHASING: TO BE FORTHCOMING.
- SUBSTANTIAL COMPLETION: REFERENCE TO "SUBSTANTIAL COMPLETION" FOR CERTAIN IMPROVEMENTS AS SET FORTH IN THE PROVISIONS OF THE APPROVED TIS SHALL MEAN COMPLETION OF THE ROADWAY IMPROVEMENTS IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE APPROVED TIS PROVIDED, HOWEVER, IN THE EVENT CERTAIN NON-ESSENTIAL ROADWAY IMPROVEMENTS (AS REASONABLY DETERMINED BY THE TOWN OF HARRISBURG) ARE NOT COMPLETED AT THE TIME THAT THE PETITIONER SEEKS TO OBTAIN A CERTIFICATE OF OCCUPANCY FOR BUILDING(S) ON THE SITE IN CONNECTION WITH RELATED DEVELOPMENT PHASING DESCRIBED ABOVE, THEN THE TOWN OF HARRISBURG MAY INSTRUCT APPLICABLE AUTHORITIES AND/OR DEPARTMENTS TO ALLOW THE ISSUANCE OF CERTIFICATES OF OCCUPANCY FOR THE APPLICABLE BUILDINGS, AND IN SUCH EVENT THE PETITIONER MAY BE ASKED TO POST A LETTER OF CREDIT OR A BOND FOR ANY IMPROVEMENTS NOT IN PLACE AT THE TIME SUCH A CERTIFICATE OF OCCUPANCY IS ISSUED TO SECURE COMPLETION OF THE APPLICABLE IMPROVEMENTS.
- RIGHT-OF-WAY CONVEYANCE: THE PETITIONER WILL DEDICATE VIA FEE SIMPLE CONVEYANCE ANY ADDITIONAL RIGHT-OF-WAY INDICATED ON THE REZONING PLAN AS RIGHT-OF-WAY TO BE DEDICATED, THE ADDITIONAL RIGHT-OF-WAY WILL BE DEDICATED PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY. THE PETITIONER WILL PROVIDE A PERMANENT SIDEWALK EASEMENT FOR ANY OF THE PROPOSED SIDEWALKS LOCATED ALONG THE PUBLIC STREETS LOCATED OUTSIDE OF THE RIGHT-OF-WAY WHERE ROW DEDICATION IS NOT PROVIDED.
- ALTERNATIVE IMPROVEMENTS: CHANGES TO THE ABOVE REFERENCED ROADWAY IMPROVEMENTS CAN BE APPROVED THROUGH COUNCIL ACTION UPON THE DETERMINATION AND MUTUAL AGREEMENT OF PETITIONER, AND THE TOWN OF HARRISBURG; PROVIDED, HOWEVER, THE PROPOSED ALTERNATE TRANSPORTATION IMPROVEMENTS PROVIDE (IN THE AGGREGATE) COMPARABLE TRANSPORTATION NETWORK BENEFITS TO THE IMPROVEMENTS IDENTIFIED IN THIS PETITION IN THE OVERALL AREA OF THE REZONING. IT IS UNDERSTOOD THAT CHANGES TO THE TIA SHALL NOT REQUIRE A REZONING.
FOR EXAMPLE, TRANSPORTATION IMPROVEMENTS MAY BE SUBSTITUTED AND/OR PAYMENT IN LIEU FOR OTHER IMPROVEMENTS IN THE OVERALL AREA OF THE REZONING MAY BE IMPLEMENTED AS DESCRIBED IN SUBSECTION (D) ABOVE.

4. ARCHITECTURAL STANDARDS:

- A. RESIDENTIAL BUILDING MATERIALS: THE BUILDING MATERIALS USED ON THE RESIDENTIAL BUILDINGS CONSTRUCTED ON SITE WILL BE A COMBINATION OF PORTIONS OF THE FOLLOWING: BRICK, STONE, PRECAST STONE, SYNTHETIC STONE, CEMENTIOUS FIBER BOARD, CEMENTITIOUS FIBER SHAKE, EIFS, STUCCO, DECORATIVE BLOCK AND/OR WOOD. VINYL OR ALUMINUM SHALL NOT BE USED AS A PRIMARY SIDING MATERIAL, HOWEVER IT MAY BE USED ON WINDOWS, SOFFITS, FASCIA AND/OR SIMILAR ROOF OVERHANG ELEMENTS, HANDRAILS/RAILINGS, AND/OR OTHER MISCELLANEOUS TRIM ELEMENTS. THE PROPOSED ROOFING MATERIALS WILL BE ARCHITECTURAL SHINGLES, SLATE, TILE AND/OR METAL.
- B. NON-RESIDENTIAL BUILDINGS: COMMERCIAL BUILDINGS SHALL MEET REGULATIONS SET FORTH IN APPENDIX E OF THE HARRISBURG UNIFIED DEVELOPMENT ORDINANCE.
- C. THE PETITIONER AGREES TO RESTRICT CLADDING MATERIALS FOR ALL BUILDINGS TO CLADDING PRODUCTS OTHER THAN VINYL SIDING.
- D. THERE SHALL BE NO EXPOSED CONCRETE FOUNDATIONS; SIDING AND/OR OTHER MATERIALS MUST EXTEND TO THE GROUND LEVEL ON ALL SIDES OF THE HOMES.

5. BUFFERS, YARDS, AND OPEN SPACE:

- A. A TWENTY-FIVE (25) FOOT PERIMETER LANDSCAPE BUFFER SHALL BE PROVIDED AS GENERALLY DEPICTED ON THE REZONING PLAN.
- B. OPEN SPACE SHALL BE PROVIDED AS GENERALLY DEPICTED ON THE REZONING PLAN AND IS INTENDED TO PROVIDE POCKETS OF OPEN SPACE THROUGHOUT THE DEVELOPMENT. OPEN SPACES MAY INCLUDE BENCHES, PLAY STRUCTURES, TRAILS, SIGNATURE LANDSCAPING, COURTYARDS, LAWNS AND/OR OTHER FEATURES THAT PROVIDE OPPORTUNITIES TO RECREATE OR FOSTER COMMUNITY ENGAGEMENT.
- C. THE PETITIONER SHALL MITIGATE OR REPLACE HERITAGE TREES IF DAMAGED DURING CONSTRUCTION IN ACCORDANCE WITH THE ORDINANCE.
- D. WET PONDS WILL HAVE A TEN (10) FOOT DEPTH OVER MINIMUM 25% OF THE PERMANENT POOL AREA.
- E. THE APPLICANT AGREES TO NOT UTILIZE SAND FILTERS AS A STORMWATER CONTROL MEASURE.

7. MISCELLANEOUS PROVISIONS:

- A. PETITIONER AGREES TO OBTAIN ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR DEVELOPMENT BEFORE ANY DEVELOPMENT ACTIVITY OCCURS ON THE SITE.
- B. MAILBOX CLUSTERS SHALL MEET ADA STANDARDS.

8. AMENDMENTS TO THE REZONING PLAN:

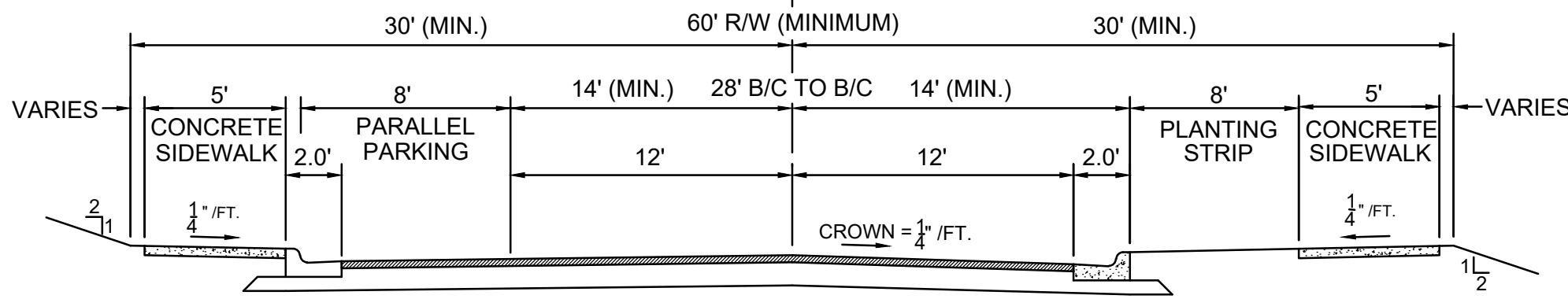
- A. FUTURE AMENDMENTS TO THE REZONING PLAN (WHICH INCLUDES THESE DEVELOPMENT STANDARDS) MAY BE APPLIED FOR BY THE THEN OWNER OR OWNERS OF THE APPLICABLE PORTION OF THE SITE AFFECTED BY SUCH AMENDMENT IN ACCORDANCE WITH THE PROVISIONS OF THE ORDINANCE.

9. BINDING EFFECT OF THE REZONING APPLICATION:

- A. IF THIS REZONING PETITION IS APPROVED, ALL CONDITIONS APPLICABLE TO THE DEVELOPMENT OF THE SITE IMPOSED UNDER THE REZONING PLAN WILL, UNLESS AMENDED IN THE MANNER PROVIDED UNDER THE ORDINANCE, BE BINDING UPON AND INSURE TO THE BENEFIT OF THE PETITIONER AND SUBSEQUENT OWNERS OF THE SITE AND THEIR RESPECTIVE HEIRS, DEVISEES, PERSONAL REPRESENTATIVES, SUCCESSORS IN INTEREST OR ASSIGNS.

NOTABLE CONDITIONS:

- A. SHOPPES AT HICKORY RIDGE PROJECT CONDITIONS:
- APPLICANT AGREES TO OBTAIN ANY AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR DEVELOPMENT BEFORE ANY DEVELOPMENT ACTIVITY CAN TAKE PLACE (PLANNING) (SEE DEVELOPMENT STANDARDS SECTION 7).
 - A DRIVEWAY PERMIT FROM NCDOT WILL BE REQUIRED FOR THE ENTRANCES OFF OF HICKORY RIDGE ROAD & ROCKY RIVER ROAD. A TOWN PERMIT WILL BE REQUIRED FOR ACCESS ALONG SNAP DRAGON ROAD. ALL RIGHTS-OF-WAY NECESSARY FOR ROAD IMPROVEMENTS WILL BE ACQUIRED PRIOR TO NCDOT DRIVEWAY PERMIT BEING EXECUTED.
 - THE DEVELOPER SHALL BE RESPONSIBLE TO MAKE ALL ROADWAY IMPROVEMENTS AS IDENTIFIED IN THE APPROVED TIA (NCDOT) (SEE DEVELOPMENT STANDARDS SECTION 3).
 - APPLICANT AGREES TO DEDICATE ADDITIONAL FUTURE RIGHT-OF-WAY FROM THE EXISTING RIGHT OF WAY SO THAT THE TOTAL DEDICATION IS 62.5 FEET FROM CENTERLINE ON ROCKY RIVER ROAD AND 40 FEET FROM CENTERLINE ON HICKORY RIDGE ROAD.
 - APPLICANT AGREES THAT WET POND SHALL BE INTERACTIVE FEATURE OF THE COMMUNITY WITH A FOUNTAIN AND MINIMUM DEPTH OF 10 FEET OVER 25% OF THE PERMANENT POOL AREA (SEE DEVELOPMENT STANDARDS SECTION 5).
 - APPLICANT AGREES THAT ALL USES ARE LIMITED TO THE PERMITTED USES (P) OUTLINED FOR B-1 ZONING IN THE HARRISBURG UNIFIED DEVELOPMENT ORDINANCE WITH THE EXCEPTION OF GAS STATIONS, CONVENIENCE STORE AS AND AUTOMOBILE RELATED USES, WHICH ARE PROHIBITED UNDER THIS CONDITIONAL REZONING (SEE DEVELOPMENT STANDARDS SECTION 2).
 - APPLICANT AGREES TO PROHIBIT VARIETY STORES (VARIETY STORE SHALL MEAN ANY STORE THAT SELLS A COMBINATION OF RETAIL, GROCERY AND HOUSEHOLD ITEMS IN EXCESS OF 5,000 SQUARE FEET) (SEE DEVELOPMENT STANDARDS SECTION 2).
 - APPLICANT AGREES TO RESTRICT PRIMARY CLADDING MATERIALS FOR ALL RESIDENTIAL BUILDINGS TO MASONRY OR SIMILAR PRODUCTS; VINYL SIDING WILL NOT BE USED. COMMERCIAL BUILDINGS SHALL MEET REGULATIONS SET FORTH IN APPENDIX E OF THE HARRISBURG UNIFIED DEVELOPMENT ORDINANCE (SEE DEVELOPMENT STANDARDS SECTION 4).
 - APPLICANT AGREES THAT THERE WILL BE NO EXPOSED CONCRETE FOUNDATIONS AND THAT SIDING AND/OR OTHER MATERIAL MUST EXTEND TO THE GROUND LEVEL ON ALL SIDES OF THE HOMES (SEE DEVELOPMENT STANDARDS SECTION 4).
 - APPLICANT AGREES TO LIMIT THE NUMBER OF TOWNHOME RENTAL UNITS TO 10% OF THE ALLOWABLE NUMBER OF TOWNHOMES CONTINGENT UPON FURTHER EVALUATION OF IMPACTS ON MORTGAGE LENDING CRITERIA; FINAL DECISION ON THE RENTAL CAP TO BE DETERMINED DURING THE PRELIMINARY PLAT REVIEW AND APPROVAL.
 - APPLICANT AGREES MAILBOX CLUSTERS SHALL MEET ADA STANDARDS AT A MINIMUM (SEE DEVELOPMENT STANDARDS SECTION 7).
 - APPLICANT AGREES THAT ALL STREETS SHOULD BE TO THE TOWN OF HARRISBURG ENGINEERING DESIGN STANDARDS, ALTERNATE PAVEMENT SCHEDULE IS NOT ALLOWABLE. ROADWAYS CROSS SECTIONS WILL BE REVIEWED AND APPROVED AT THE CONSTRUCTION DOCUMENT PHASE (SEE DEVELOPMENT STANDARDS SECTION 3).



LOCAL RESIDENTIAL STREET (COLLECTOR)
W/ PARALLEL PARKING ON BOTH SIDES - 60' R/W

NOTES:

- SIDEWALK SHALL BE PROVIDED ON BOTH SIDES OF STREET A MINIMUM OF 8' FROM BACK OF CURB. IN AREAS WHERE PARALLEL PARKING IS PROVIDED, SIDEWALK SHALL BE LOCATED AT BACK OF CURB.
- AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BY TOWN OF HARRISBURG BASED ON SPECIFIC TRAFFIC PARAMETERS.
- DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN OF EQUAL OR GREATER STRENGTH TO DIRECTOR OF ENGINEERING FOR APPROVAL.



ESP Associates, Inc.
P.O. Box 7030
Charlotte, NC 28241
3475 Lakemont Blvd
Fort Mill, SC 29708
704-583-4949 (NC)
803-802-2440 (SC)
www.espassociates.com

NO.	DATE	REVISION	BY
1	06/29/2021	REVISED PER STAFF COMMENTS	MW

TECHNICAL DATA SHEET
SHEET (2 OF 2)

HICKORY RIDGE ROAD SITE

HARRISBURG, NC

TRUE SUMMIT CAPITAL

PROJECT INFORMATION

PROJECT MANAGER:	ML
DESIGNED BY:	MJ
DRAWN BY:	MJ
PROJECT NUMBER:	JN76.100
ORIGINAL DATE:	4/5/2021

SHEET:

2 OF 2

COMMUNITY MEETING REPORT FOR HICKORY RIDE ROAD AND ROCKY RIVER ROAD

Petitioner: True Summit Capital with The Pulte Group

Property: ± 14.285 acres located at Hickory Ridge Road and Rocky River Road

This Community Meeting Report is being filed with the Office of the City Clerk and the Planning Department.

PERSONS AND ORGANIZATIONS CONTACTED WITH DATES AND EXPLANATIONS OF HOW CONTACTED:

The required Community Meeting was held virtually on Thursday May 20, 2021. The Town of Harrisburg mailed a written notice of the date, time, and details of the Virtual Community Meeting to the individuals and organizations as required by Ordinance.

TIME AND DATE OF MEETING:

The Community Meeting required by the Ordinance was held virtually on Thursday May 20, 2021, at 6:00 PM.

PERSONS IN ATTENDANCE AT MEETING:

The list of registered attendees from the required Virtual Community Meeting is attached as **Exhibit A**. The Petitioner's representatives at the required Community Meeting were Mohammed Idlibi with True Summit Capital, Matt Kearns with The Pulte Group, Matt Levesque with ESP and Associates, and Bridget Grant with Moore & Van Allen, PLLC.

SUMMARY OF ISSUES DISCUSSED AT MEETING:

I. Overview of Petitioner's Presentation.

Introduction and Overview of Development Plan.

After introductions by the Town of Harrisburg Planning Staff, Bridget Grant welcomed everyone in attendance and introduced the rezoning team.

Matt Kearns with The Pulte Group gave a brief overview of Pulte's development history and its intent to develop a quality townhome community on the site in partnership with True Summit Capital's non-residential uses.

Ms. Grant described the benefits of conditional zoning, the site location, and the plan's consistency with the adopted land use policy. Ms. Grant described that the proposed plan would allow the development of up to 55 townhomes, 12,000 square feet of retail, 14,000 square feet of office, and 11,500 square feet for a childcare facility.

The development team described the Transportation Impact Study (TIS) and the required transportation improvements required to mitigate the traffic impacts.

Ms. Grant closed by sharing precedent images that reflect the quality of the development anticipated for the site and then opened the meeting up for questions.

II. Summary of Questions/Comments and Responses:

The following groups the question/comments into four areas: land use, residential uses, non-residential uses, and traffic and connectivity.

LAND USE – It was clarified that this meeting is a follow up to a petition that was filed in early 2020. The applicant and town staff agreed to hold a second community meeting given the delay and new residential partner. One attendee asked why develop non-residential uses in this location. Ms. Grant and Mr. Nepal explained that the proposed mix of uses is consistent with the adopted land use policy which recommends townhome and commercial uses in this location. One attendee inquired what BMP's are and another asked for additional detail on the fountain. Staff confirmed BMPs are required water quality features that will be improved as fountains to be aesthetically pleasing. The development team explained that it is their intention to develop the site in a manner that provides easily accessible amenities and services in a walkable format consistent with the vision set forth in the land use plan. Providing a mix of uses in close proximity to homes can decrease the number of trips people take in cars further away from home. One resident inquired what would happen if the plan couldn't be developed. Ms. Grant and Mr. Nepal confirmed that any change to the approved plan would require another rezoning with additional community engagement. The conditions of the plan remain with the land regardless of ownership.

RESIDENTIAL USES. Several participants asked about the quality of the homes to be constructed on the site and the potential price points. The development team anticipates the price points to be in the high two's or low three's but market changes can impact the sales prices. Ms. Grant confirmed that the community would have its own HOA and amenity areas; there is no expectation that the residents of the proposed Pulte community will be permitted to use Blume amenities. The townhomes are a "for sale" product. Residents requested that a "quality" or "higher-end" community be developed on the site. One attendee noted that the anticipated price per square foot is comparable to the home values in Blume.

NON-RESIDENTIAL USES – One attendee inquired about the proposed non-residential uses. Ms. Grant noted that the development team is seeking uses that are considered "neighborhood services" and are intended to serve the surrounding residential communities. Mr. Nepal confirmed that all uses in the B-1 zoning district are permitted subject to the conditions of the rezoning. Several attendees requested that a "dollar general" type store not be permitted on the site. Ms. Grant confirmed that the development team would further amend the list of permitted uses and look to exclude what are commonly referred to as "variety stores" as well as gas stations, vape stores, fast food restaurants, or other uses not desired by the adjacent existing residential. The development team also confirmed that the proposed non-residential uses will be one story.

TRAFFIC & CONNECTIVITY

Several participants inquired about the traffic study. It was confirmed that the traffic study takes into consideration all approved plans. The staff will go back to the traffic engineer to address including the traffic counts from the recently approved rezoning at Hickory Ridge and Lower Rocky River. Residents of Blume expressed concern that traffic would increase within their community. Ms. Grant described how the extension of existing streets would provide more options to access Hickory Ridge Road and Rocky River Road. One attendee requested that a pedestrian connection be provided to Blume South; it was noted that a pedestrian connection is not anticipated. It was confirmed that Snap Dragon would connect to the new development and extend to Rocky River Road. Mr. Nepal confirmed that the street connections are required.

In closing, Ms. Grant and Mr. Nepal shared their email addresses in order to address any remaining questions.

CHANGES MADE TO PETITION AS A RESULT OF THE MEETING:

The development team will revise the conditions to include additional prohibited uses.

cc: Sushil Nepal, Planning Director, Town of Harrisburg
Mohammed Idlibi, True Summit Capital
Matt Kearns, The Pulte Group
Bridget Grant, Moore & Van Allen, PLLC

EXHIBIT A

HICKORY RIDGE TOWNHOMES COMMUNITY MEETING ATTENDEES

- 1 Alex Eggleston, 2643 Red Maple Lane, Harrisburg 28075
- 2 Angie Anderson, 2627 Cherry Laurel Drive
- 3 Aubrey Whitten, 3652 Burnage Hall Rd, Harrisburg, NC
- 4 Bella Elsayaf, 8459 Rosemary Way
- 5 Casey Alexander, 2611 Cherry Laurel Dr., Shoppes at Hickory Ridge
- 6 Craig and Susan, Carter 8476 Rosemary Way, Harrisburg, NC 28075
- 7 Daryl Taylor, 9000 Cornflower Dr. Harrisburg NC 28075
- 8 Eleanor Zaloom, 7617 Maple Bluff Lane, Concord, NC
- 9 Jacqueline Eggleston, 2643 Red Maple Lane, Harrisburg
- 10 Janice Horne, 3723 Ayrshire Court Harrisburg, NC 28075
- 11 Jason and JoAnna Lynn, 2506 Red Maple Ln, Harrisburg
- 12 Joe Anderson, 2627 Cherry Laurel Dr.
- 13 Joseph Iskra, 2268 Sweet Pea Ln Harrisburg NC 28075
- 14 Joyce Hurst, 2628 Cherry Laurel Drive
- 15 Kevin Frazier, 9027 Daisy Place
- 16 Lloyd Quay, 7570 Hickory Ridge Road, Harrisburg, NC 28075
- 17 Sarah Robinson, 2616 Cherry Laurel Drive
- 18 Shanta Peggins Blume
- 19 Tara Beverly, 2539 Snap Dragon, Harrisburg, NC
- 20 Tom Mikulasovich, 2518 Red Maple Lane
- 21 Vickie Wallis, 2507 Carnation Drive Harrisburg, NC

**Traffic Impact Analysis UPDATE for
Shoppes at Hickory Ridge
Harrisburg, North Carolina**

Prepared for:

**Town of Harrisburg
Harrisburg, North Carolina**

Prepared by:

**Kimley-Horn and Associates, Inc.
NC License #F - 0102
200 South Tryon Street, Suite 200
Charlotte, North Carolina 28202
(704) 333-5131**



Laura N Reid
07/12/21

**July 2021
018536038**

TABLE OF CONTENTS

	<u>Page No.</u>
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	4
3.0 EXISTING TRAFFIC CONDITIONS	5
3.1 STUDY AREA	5
3.2 EXISTING TRAFFIC VOLUME DEVELOPMENT	6
4.0 BACKGROUND TRAFFIC VOLUME DEVELOPMENT	11
4.1 HISTORICAL BACKGROUND GROWTH TRAFFIC	11
4.2 APPROVED DEVELOPMENTS	11
5.0 SITE TRAFFIC VOLUME DEVELOPMENT	15
5.1 SITE ACCESS	15
5.2 TRAFFIC GENERATION	16
5.3 SITE TRAFFIC DISTRIBUTION AND ASSIGNMENT	18
5.4 BUILD-OUT TRAFFIC VOLUMES	18
6.0 CAPACITY ANALYSIS	22
6.1 ROCKY RIVER ROAD AND ROBINSON CHURCH ROAD	24
6.2 ROCKY RIVER ROAD AND HICKORY RIDGE ROAD	25
6.3 ROCKY RIVER ROAD AND STALLINGS ROAD	26
6.4 ROCKY RIVER ROAD AND LIVE OAK ROAD/ACCESS 1	27
6.5 HICKORY RIDGE ROAD AND ACCESS 2	28
7.0 AUXILIARY TURN LANE WARRANTS	29
8.0 CRASH DATA ANALYSIS	30
9.0 MITIGATION IMPROVEMENTS	32
APPENDIX	34

List of Figures

	<u>Page No.</u>
FIGURE 1.1 – IDENTIFIED MITIGATION IMPROVEMENTS	3
FIGURE 3.1 – STUDY AREA/SITE LOCATION	7
FIGURE 3.2 – PROPOSED SITE PLAN	8
FIGURE 3.3 – EXISTING ROADWAY LANEAGE	9
FIGURE 3.4 – 2020 EXISTING TRAFFIC VOLUMES	10
FIGURE 4.1 – 2024 BACKGROUND AM PEAK-HOUR TRAFFIC VOLUMES	13
FIGURE 4.2 – 2024 BACKGROUND PM PEAK-HOUR TRAFFIC VOLUMES	14
FIGURE 5.1 – SITE TRAFFIC DISTRIBUTION AND ASSIGNMENT	19
FIGURE 5.2 – 2024 BUILD-OUT AM PEAK-HOUR TRAFFIC VOLUMES	20
FIGURE 5.3 – 2024 BUILD-OUT PM PEAK-HOUR TRAFFIC VOLUMES	21
FIGURE 9.1 – IDENTIFIED MITIGATION IMPROVEMENTS	33

List of Tables

	<u>Page No.</u>
TABLE 5.1 – TRIP GENERATION	16
TABLE 6.0-A VEHICULAR LOS CONTROL DELAY THRESHOLDS FOR <u>UNSIGNALIZED</u> INTERSECTIONS	23
TABLE 6.0-B VEHICULAR LOS CONTROL DELAY THRESHOLDS FOR <u>SIGNALIZED</u> INTERSECTIONS	23
TABLE 6.1 – ROCKY RIVER ROAD AND ROBINSON CHURCH ROAD	24
TABLE 6.2 – ROCKY RIVER ROAD AND HICKORY RIDGE ROAD	25
TABLE 6.3 – ROCKY RIVER ROAD AND STALLINGS ROAD	26
TABLE 6.4 – ROCKY RIVER ROAD AND LIVE OAK ROAD/ACCESS 1	27
TABLE 6.5 – HICKORY RIDGE ROAD AND ACCESS 2	28
TABLE 8.1 – CRASH SEVERITY SUMMARY	30
TABLE 8.2 – ACCIDENT FREQUENCY SUMMARY	30
TABLE 8.3 – ACCIDENT TYPE SUMMARY	31

1.0 Executive Summary

The purpose of this Traffic Impact Analysis (TIA) is to evaluate the vehicular traffic impacts on the surrounding transportation infrastructure as a result of the proposed Shoppes at Hickory Ridge development. The primary objectives of the study are:

- To estimate trip generation and distribution for the proposed development.
- To perform intersection capacity analyses for the identified study area.
- To determine the potential traffic impacts of the proposed development.
- To identify improvements to mitigate the proposed development's traffic impacts.

The proposed Shoppes at Hickory Ridge development is located in the southeast quadrant of the Rocky River Road and f Hickory Ridge Road intersection in Harrisburg, North Carolina. Based on the site plan provided by the applicant, the proposed development is currently envisioned to consist of approximately:

- 12,000 square feet (sf) of general office space (two 6,000 sf buildings)
- 14,000 sf of retail space
- 11,500 sf of daycare center space
- 55 townhomes

For the purposes of this TIA, the build-out year of 2024 was considered. Based on the provided site plan and information provided by the applicant, the proposed development will be accessed via two external access points:

- Access 1 – an unsignalized, full-movement connection to Rocky River Road aligned with Live Oak Road (approximately 700 feet east of Hickory Ridge Road)
- Access 2 – an unsignalized, full-movement connection to Hickory Ridge Road approximately 550 feet south of Rocky River Road

An internal connection to the existing Blume subdivision is also proposed via Sundrop Place and Snap Dragon Drive.

A TIA scoping meeting was held with the Town of Harrisburg and representatives of the applicant at Town Hall on February 4, 2020, to obtain background information and to ascertain the scope and parameters to be included in this TIA. After COVID-19 delays, a Memorandum of Understanding (MOU) was developed in July 2020 based on discussions from this meeting that documented all scoping parameters to be used for the TIA and was reviewed and agreed upon by the Town of Harrisburg and the applicant. Additionally, North Carolina Department of Transportation (NCDOT) reviewed and approved the MOU, which is included in the **Appendix**.

The following AM and PM peak-hour scenarios were analyzed to determine the proposed development's transportation impacts on the surrounding network:

- 2020 Existing Conditions
- 2024 Background Conditions
- 2024 Build-out Conditions

Based on coordination with the Town, NCDOT, and the Applicant, this TIA evaluated operations under each of the AM and PM peak-hour scenarios above for the following study area intersections:

1. Rocky River Road and Robinson Church Road
2. Rocky River Road and Hickory Ridge Road
3. Rocky River Road and Stallings Road
4. Rocky River Road and Live Oak Road/Access 1
5. Hickory Ridge Road and Access 2

Kimley-Horn was retained to determine the potential traffic impacts of this development (in accordance with the traffic study guidelines in the *NCDOT Policy on Street and Driveway Access to North Carolina Highways* and set forth by the *Town of Harrisburg Unified Development Ordinance – Appendix F*), and to identify transportation improvements that may be required to mitigate these impacts. This report presents trip generation, distribution, capacity analyses, and identified transportation improvements required to mitigate anticipated traffic demands produced by the subject development.

Based on the capacity analyses performed at each of the identified study intersections, along with review of the auxiliary turn-lane warrants contained herein, the following improvements have been identified to mitigate the impact of the proposed development on the adjacent street network:

Robinson Church Road and Rocky River Road

- Contribution of \$50,000 to the left-turn lanes along Robinson Church Road.

Hickory Ridge Road and Rocky River Road

- Dedication of future right-of-way along the frontage of the site on Rocky River Road and Hickory Ridge Road per the Town's CTP.

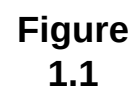
Rocky River Road and Live Oak Road/Access 1

- Restripe the southbound approach of Live Oak Road to include a separate left-turn lane with a minimum of 100 feet of storage and a shared through-right lane.
- Construction of the northbound approach of Access 1 with one ingress & two egress lanes and an internal protected stem of 125 feet.
- Construction of an eastbound right-turn lane along Rocky River Road with a minimum of 100 feet of storage.
- Construction of an eastbound left-turn lane along Rocky River Road with a minimum of 100 feet of storage. This should create a three-lane section along Rocky River Road, between Hickory Ridge Road and Live Oak Road.
- Construction of a westbound left-turn lane along Rocky River Road with a minimum of 100 feet of storage.

Hickory Ridge Road and Access 2

- Construction of a southbound left-turn lane along Hickory Ridge Road with a minimum of 100 feet of storage.
- Construction of the westbound approach of Access 2 with one ingress & one egress lane and an internal protected stem of 100 feet.

The mitigation improvement identified within the study area are shown in **Figure 1.1**. The improvements shown on this figure are subject to approval by NCDOT and the Town of Harrisburg. All additions and attachments to the State and Town roadway system shall be properly permitted, designed and constructed in conformance to standards maintained by the agencies.



2.0 Introduction

The proposed Shoppes at Hickory Ridge development is located in the southeast quadrant of the Rocky River Road and f Hickory Ridge Road intersection in Harrisburg, North Carolina. Based on the site plan provided by the applicant, the proposed development is currently envisioned to consist of approximately:

- 12,000 square feet (sf) of general office space (two 6,000 sf buildings)
- 14,000 sf of retail space
- 11,500 sf of daycare center space
- 55 townhomes

For the purposes of this TIA, the build-out year of 2024 was considered. Based on the provided site plan and information provided by the applicant, the proposed development will be accessed via two external access points:

- Access 1 – an unsignalized, full-movement connection to Rocky River Road aligned with Live Oak Road (approximately 700 feet east of Hickory Ridge Road)
- Access 2 – an unsignalized, full-movement connection to Hickory Ridge Road approximately 550 feet south of Rocky River Road

An internal connection to the existing Blume subdivision is also proposed via Sundrop Place and Snap Dragon Drive.

A TIA scoping meeting was held with the Town of Harrisburg and representatives of the applicant at Town Hall on February 4, 2020, to obtain background information and to ascertain the scope and parameters to be included in this TIA. After COVID-19 delays, a Memorandum of Understanding (MOU) was developed in July 2020 based on discussions from this meeting that documented all scoping parameters to be used for the TIA and was reviewed and agreed upon by the Town of Harrisburg and the applicant. Additionally, North Carolina Department of Transportation (NCDOT) reviewed and approved the MOU, which is included in the **Appendix**.

Kimley-Horn was retained to determine the potential traffic impacts of this development (in accordance with the traffic study guidelines in the *NCDOT Policy on Street and Driveway Access to North Carolina Highways* and set forth by *Town of Harrisburg Unified Development Ordinance – Appendix F*), and to identify transportation improvements that may be required to mitigate these impacts. This report presents trip generation, distribution, capacity analyses, crash analyses and identified transportation improvements required to mitigate anticipated traffic demands produced by the subject development.

3.0 Existing Traffic Conditions

Existing traffic conditions were coordinated with Town of Harrisburg and NCDOT staff and collected through field observations and previously collected turning-movement counts to establish the existing conditions baseline analysis.

3.1 STUDY AREA

Based on coordination with the Town, NCDOT and the applicant, the study area for this TIA includes the following existing intersections:

1. Rocky River Road and Robinson Church Road
2. Rocky River Road and Hickory Ridge Road
3. Rocky River Road and Stallings Road
4. Rocky River Road and Live Oak Road

Figure 3.1 shows the study area intersections and the site location, **Figure 3.2** shows the proposed site plan for the development as provided by the applicant and **Figure 3.3** shows the existing roadway geometry at the study intersections.

The primary roadways in the vicinity of the site are Rocky River Road, Robinson Church Road, Hickory Ridge Road, and Stallings Road.

Rocky River Road is currently a two-lane, undivided major collector with a posted speed limit of 45 miles per hour (mph). Rocky River Road carries an annual average daily traffic (AADT) volume of 10,500 vehicles per day (vpd) in the vicinity of the proposed development based on 2018 NCDOT AADT data.

Robinson Church Road is currently a two-lane, undivided major collector with a posted speed limit of 45 mph in the vicinity of the proposed development. Robinson Church Road carries an AADT volume of 8,200 vpd north of and 6,400 vpd south of Rocky River Road.

Hickory Ridge Road is currently a two-lane, undivided local street with a posted speed limit of 45 mph in the vicinity of the proposed development. Hickory Ridge Road carries an AADT volume of 6,600 vpd north of Rocky River Road and does not have a posted AADT south of Rocky River Road.

Stallings Road is currently a two-lane, undivided local street with a posted speed limit of 35 mph. Stallings Road does not have a NCDOT AADT volume posted north of Rocky River Road.

3.2 EXISTING TRAFFIC VOLUME DEVELOPMENT

At the time of the TIA scoping meeting in February 2020 new peak-hour turning movement counts were planned to be collected for this TIA in accordance with the TIA Ordinance. However, due to COVID-19 and associated impacts to work and school schedules at the time of this TIA, it was determined that new peak-hour turning movement counts may not be indicative of “typical” traffic operations. Existing traffic volumes were determined based on the alternative methodology outlined below and as documented in the approved MOU (included in the **Appendix**).

AM (7:00-9:00 AM) and PM (4:00-6:00 PM) intersection turning-movement, heavy-vehicle, pedestrian and bicycle counts were collected by National Data and Surveying (NDS) on Thursday, May 18, 2017, at the following intersections:

- Rocky River Road and Robinson Church Road
- Rocky River Road and Hickory Ridge Road

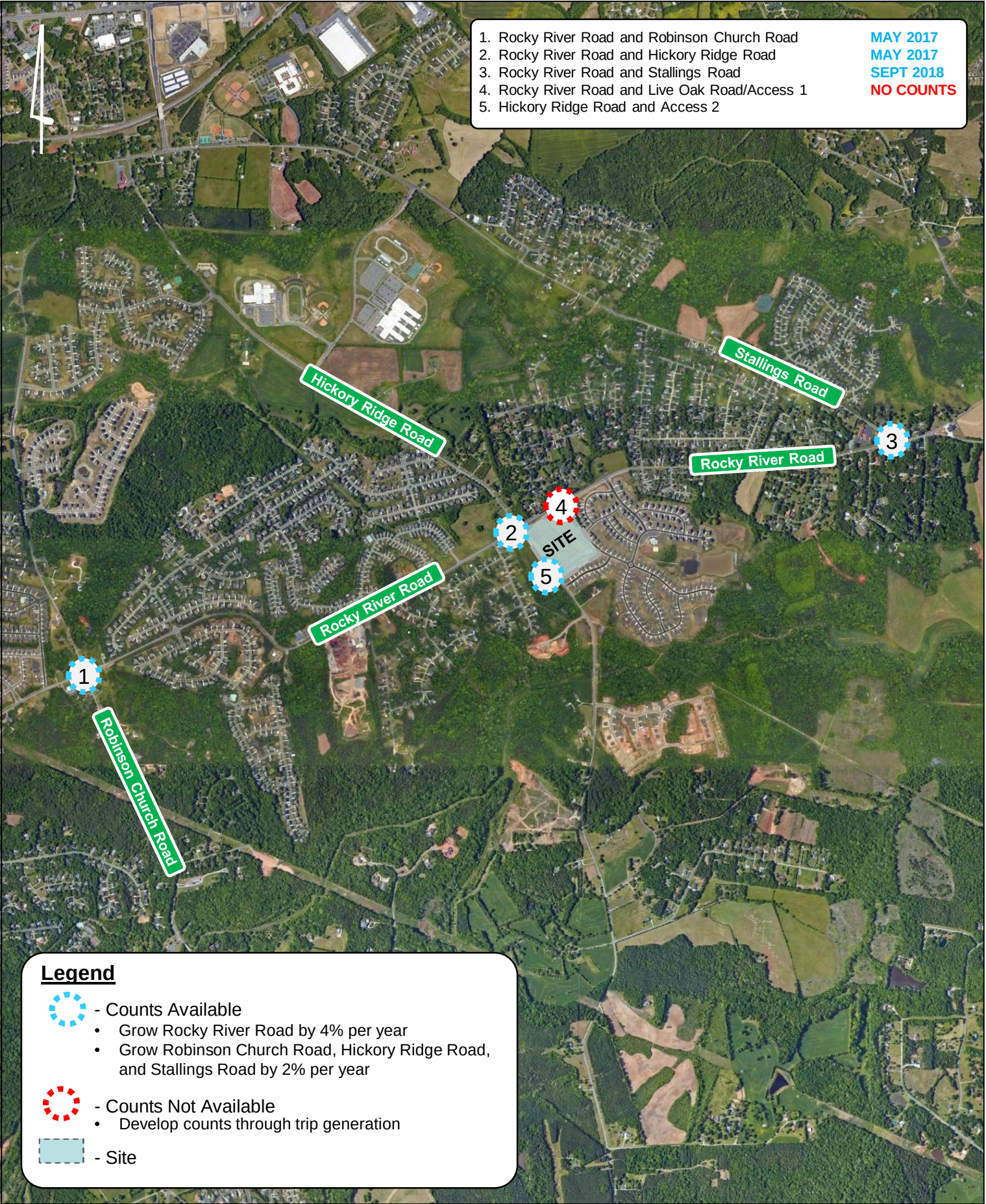
AM (7:00-9:00 AM) and PM (4:00-6:00 PM) intersection turning-movement, heavy-vehicle, pedestrian and bicycle counts were collected by NDS on Thursday, September 20, 2018 at the intersection of Rocky River Road and Stallings Road.

The turning-movement counts along Rocky River Road were grown by 4% per year to determine the 2020 existing traffic volumes. The turning-movement counts along Robinson Church Road, Hickory Ridge Road, and Stallings Road were grown by 2% per year to determine the 2020 existing traffic volumes.

Turning movement counts were not available at the intersection of Rocky River Road and Live Oak Road. Given that Live Oak Road serves an existing neighborhood, volumes on this street were developed by conducting trip generation analysis for the neighborhood using the trip generation rates published in *Trip Generation* (Institute of Transportation Engineers, Tenth Edition, 2017). Based on review of aerial imagery, the neighborhood was assumed to include approximately 110 single family homes. The resulting site trips were assigned to the study intersection based on the site trip distribution for the Shoppes at Hickory Ridge development. Through volumes along Rocky River Road were balanced with the adjacent study area intersection of Rocky River Road and Hickory Ridge Road. Trip generation calculations and site trip assignments are included in the **Appendix**.

Volume balancing was not performed between the remaining study area intersections due to the presence of driveways and distance between the intersections. Peak-hour intersection turning-movement count data is provided in the **Appendix**. A summary of the count data and methodology can be seen in **Figure 3.1**.

Figure 3.4 illustrates the 2020 existing AM and PM peak-hour traffic volumes.



LEGEND

Existing Lane

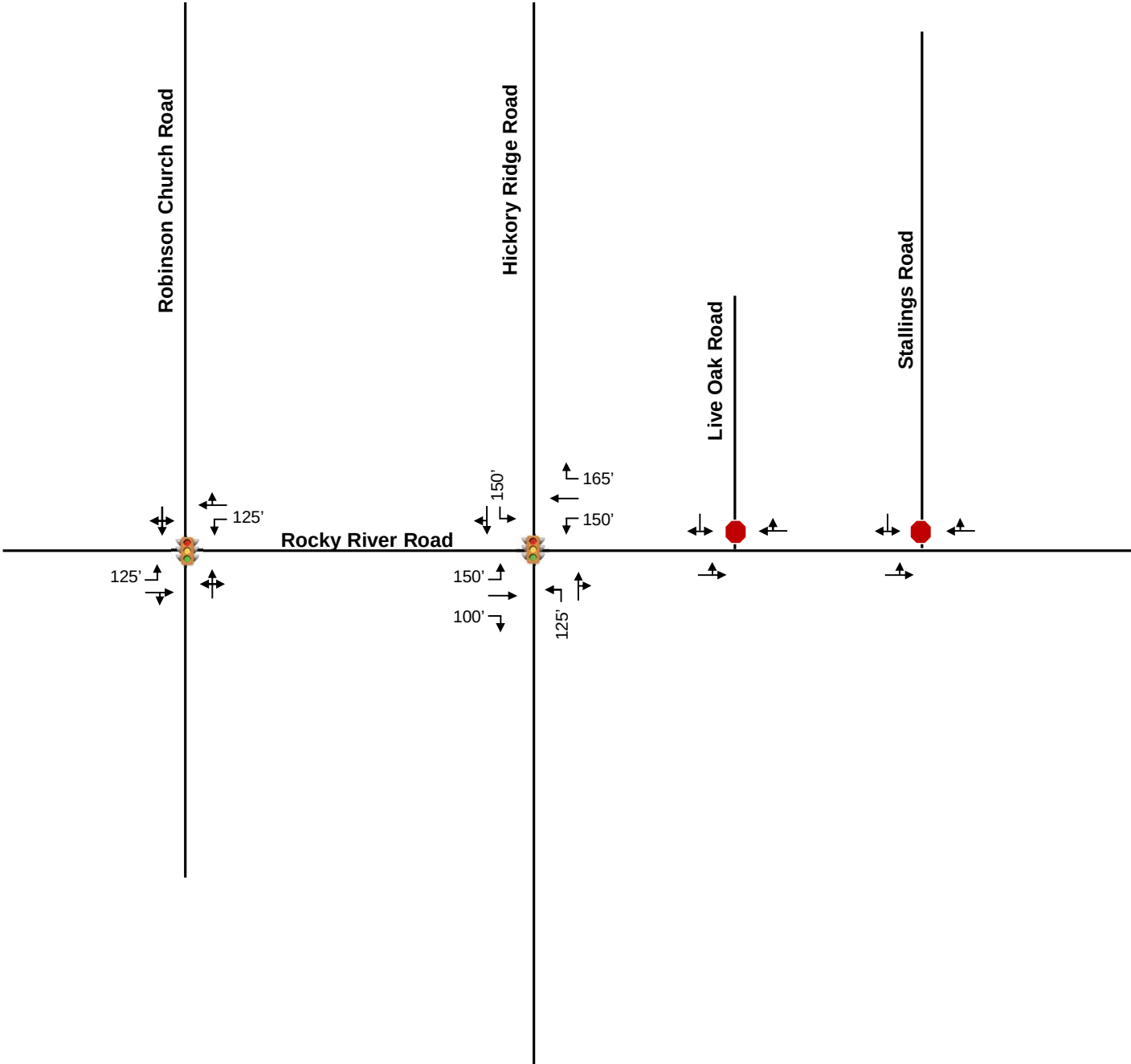
X' Storage Length

Traffic Signal

Stop Control



NOT TO SCALE



LEGEND

- XX AM Peak-Hour Traffic Volumes
- (XX) PM Peak-Hour Traffic Volumes
- Stop Control
- 🚦 Traffic Signal



4.0 Background Traffic Volume Development

Projected background (non-project) traffic is defined as the expected growth or change in traffic volumes on the surrounding roadway network between the year the existing counts were collected and the expected build-out year absent the construction and opening of the proposed project. This includes both non-specific general growth based on historical increase in local traffic volumes (historical background growth), along with specific growth and/or change in traffic volumes caused by either approved, but not yet fully-constructed, off-site developments and/or planned transportation projects specifically identified within the vicinity of the proposed development.

4.1 HISTORICAL BACKGROUND GROWTH TRAFFIC

Historical background growth is the increase in existing traffic volumes due to usage increases and non-specific growth throughout the area, and accounts for growth that is independent of specific off-site developments or planned transportation projects. Historical background growth traffic is calculated using an annual growth rate, which is applied to the existing traffic volumes up to the future horizon years. For this analysis, an annual growth rate of 2% was applied to the 2020 existing peak-hour traffic volumes to calculate base 2024 background traffic volumes. This methodology was determined based on coordination with Town of Harrisburg and NCDOT staff.

4.2 APPROVED DEVELOPMENTS

At the direction of the Town of Harrisburg and NCDOT staff, ten approved developments that are expected to impact traffic volumes within the study area were included in the background traffic volumes for this TIA. Two additional approved developments were added to the original eight outlined in the approved scoping package. The ten approved developments include:

- Farmington Mixed Use
- Holcombe Woods
- Grantham
- Essex Homes
- Camellia Gardens
- Stallings Road Subdivision
- Addison Park
- SW Cabarrus Elementary School
- Orchid Ridge (previously known as Hickory Ridge Road Development)
- Hickory Ridge Single Family

Per coordination with the Town, all developments were assumed to be 0% built-out at the time of the turning-movement counts.

Volumes for the approved developments were obtained from the following sources:

- Farmington TIA (Davenport, May 2018)
- Holcombe Property TIA (SEPI Engineering and Construction, November 2014)
- Avanti – Robinson Church Road Subdivision TIA (STV Incorporated, November 2014) [Grantham]
- Camellia Gardens TIA (Kimley-Horn, June 2019)
- Stallings Road Subdivision TIA (Kimley-Horn, October 2018)
- New Southwest Elementary School TIA (Kimley-Horn, March 2018)
- Hickory Ridge Road Development TIA (Kimley-Horn, February 2021)

A TIA was not performed for Essex Homes, Addison Park, or Hickory Ridge Single Family. Therefore, trip generation was performed for these sites and project trips associated with these developments were distributed throughout the study area based on the existing turning movement counts.

The following laneage improvements were identified at the intersection of Rocky River Road and Hickory Ridge Road in the *New Southwest Elementary School TIA*:

- Construction of a northbound right-turn lane with 275 feet of storage and permitted overlap phasing.
- Extension of the northbound left-turn lane to provide 150 feet of storage
- Construction of a southbound right-turn lane with 100 feet of storage and permitted overlap phasing.
- Extension of the westbound right-turn lane to provide 465 feet of storage.
- Extension of the westbound left-turn lane to provide 175 feet of storage.
- Extension of the eastbound right-turn lane to provide 250 feet of storage.

Per a letter from the NCDOT Municipal and School Transportation Assistance (MSTA) group and Congestion Management section dated October 11, 2019, construction of these improvements are not committed to be done by the school. Therefore, per coordination with the Town and local NCDOT staff, these improvements associated with the school were not included in the future year conditions.

Per Town staff, the following laneage improvements were included in all future year conditions at the intersection of Rocky River Road and Robinson Church Road based on committed improvements as part of the Grantham development:

- Construction of a northbound left-turn lane with 100 feet of storage.
- Construction of a southbound left-turn lane with 200 feet of storage (via \$50,000 contribution).

The following laneage improvements were included in all future year conditions at the intersection of Rocky River Road and Stallings Road based on the identified mitigation in the *Stallings Road Subdivision TIA*:

- Installation of a traffic signal.

The following laneage improvements were included in all future year conditions at the intersection of Rocky River Road and Hickory Ridge Road based on the identified mitigation in the *Hickory Ridge Road Development TIA*:

- Construction of a northbound right-turn lane with 100 feet of storage.
- Extension of the northbound left-turn lane to provide 425 feet of storage.

Figures 4.1 and **4.2** show the 2024 background AM and PM peak-hour traffic volumes, respectively, that include the historical growth traffic and approved development trips.

LEGEND

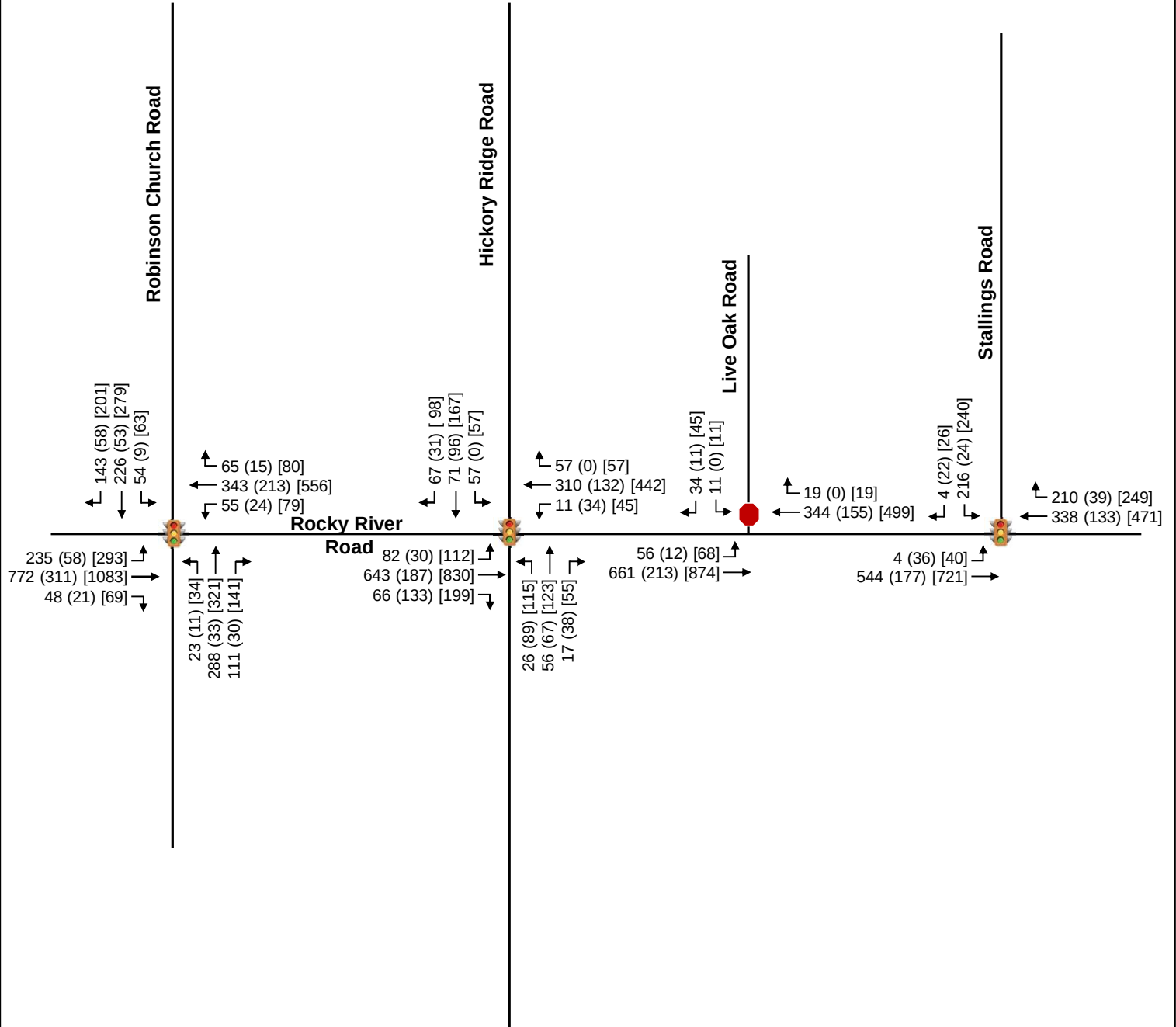
- XX Historic Growth Traffic
- (XX) Approved Development Trips
- [XX] Background Traffic Volumes
- Stop Control
- 🚦 Traffic Signal

NOT TO SCALE



LEGEND

- XX Historic Growth Traffic
- (XX) Approved Development Trips
- [XX] Background Traffic Volumes
- Stop Control
- 🚦 Traffic Signal



5.0 Site Traffic Volume Development

Site traffic developed for this TIA is defined as the vehicle trips expected to be generated and added to the study area by construction of the proposed development, and the distribution and assignment of that traffic throughout the surrounding network.

5.1 SITE ACCESS

Based on the provided site plan and information provided by the applicant, the proposed development will be accessed via two external access points:

- Access 1 – an unsignalized, full-movement connection to Rocky River Road aligned with Live Oak Road (approximately 700 feet east of Hickory Ridge Road)
- Access 2 – an unsignalized, full-movement connection to Hickory Ridge Road approximately 550 feet south of Rocky River Road

An internal connection to the existing Blume subdivision is also proposed via Sundrop Place and Snap Dragon Drive.

5.2 TRAFFIC GENERATION

The traffic generation potential of the proposed development was determined using the trip generation rates published in *Trip Generation* (Institute of Transportation Engineers, Tenth Edition, 2017). Based on the site plan provided by the applicant, the proposed development is currently envisioned to consist of approximately:

- 12,000 square feet (sf) of general office space (two 6,000 sf buildings)
- 14,000 sf of retail space
- 11,500 sf of daycare center space
- 55 townhomes

Table 5.1 summarizes the projected trip generation for the built conditions of the proposed development, respectively. During a typical weekday, upon build-out of the proposed development, it has the potential to generate 190 and 255 net new external trips during the AM and PM peak hours, respectively.

Land Use	Intensity	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
General Office [ITE 710] ^	12,000 SF	136	26	23	3	79	14	65
Shopping Center 1 [ITE 820]*	8,000 SF	302	8	5	3	30	14	16
Shopping Center 2 [ITE 820]*	6,000 SF	227	6	4	2	23	11	12
Day Care Center [ITE 565]	11,500 SF	548	127	67	60	128	60	68
Multifamily Housing Low-Rise - (Townhomes) [ITE 220]	55 DU	375	27	6	21	35	22	13
Subtotal		1,588	194	105	89	295	121	174
Internal Capture		232	4	2	2	26	13	13
ITE 820 Pass-By - 0% AM / 34% PM		8	0	0	0	8	4	4
ITE 820 Pass-By - 0% AM / 34% PM		6	0	0	0	6	3	3
Adjacent Street Traffic			2,602			2,165		
10% Adjacent Street Traffic		480	262	131	131	218	109	109
Pass-By~		14	0	0	0	14	7	7
Net New External Trips		1,342	190	103	87	255	101	154

^ General Office buildings calculated together due to shared parking field
 * Shopping Center buildings calculated separately per NCDOT guidelines
 * Adjacent Rate used to calculate Shopping Center trip generation due to small square footages
 ~ Pass-by will be limited to a maximum of 10% adjacent street traffic; The trip generation may be updated to reflect this limit once counts are collected

Internally captured trips are trips that begin and end within the project site and do not access the external roadway network. The National Cooperative Highway Research Program (NCHRP) *Report 684 Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*, produced by the Transportation Research Board, was used to calculate the internal capture for the development. Internal capture calculations are included in the **Appendix**.

Pass-by trips are trips already on the roadway network that turn into the site as they pass-by on the adjacent street. Pass-by volumes were calculated for the proposed site based on the equations and data presented in the ITE *Trip Generation Handbook*. Per NCDOT guidelines, pass-by volumes

were limited to ten percent of the adjacent street traffic. Pass-by calculations are included in the **Appendix**.

5.3 SITE TRAFFIC DISTRIBUTION AND ASSIGNMENT

The proposed development's trips were assigned to the surrounding network based on existing peak-hour turning movements, surrounding land uses, locations of similar land use and population densities in the area. The following site traffic distribution was reviewed and approved as part of the MOU by the Town of Harrisburg, NCDOT and the applicant:

- 10% to/from the north along Robinson Church Road
- 10% to/from the south along Robinson Church Road
- 10% to/from the north along Hickory Ridge Road
- 10% to/from the south along Hickory Ridge Road
- 5% to/from the north along Stallings Road
- 20% to/from the east along Rocky River Road
- 30% to/from the west along Rocky River Road
- 5% to/from the Blume subdivision

The overall site traffic distribution and assignment is shown in **Figure 5.1**.

5.4 BUILD-OUT TRAFFIC VOLUMES

The build-out traffic volumes include the assignment of the projected site traffic generation added to the appropriate background traffic volumes. **Figures 5.2** and **5.3** show the projected 2024 build-out traffic volumes for the AM and PM peak hours, respectively. Intersection volume development worksheets for all intersections within the study network are provided in the **Appendix**.

LEGEND

XX% Site Traffic Distribution

XX% Inbound Assignment

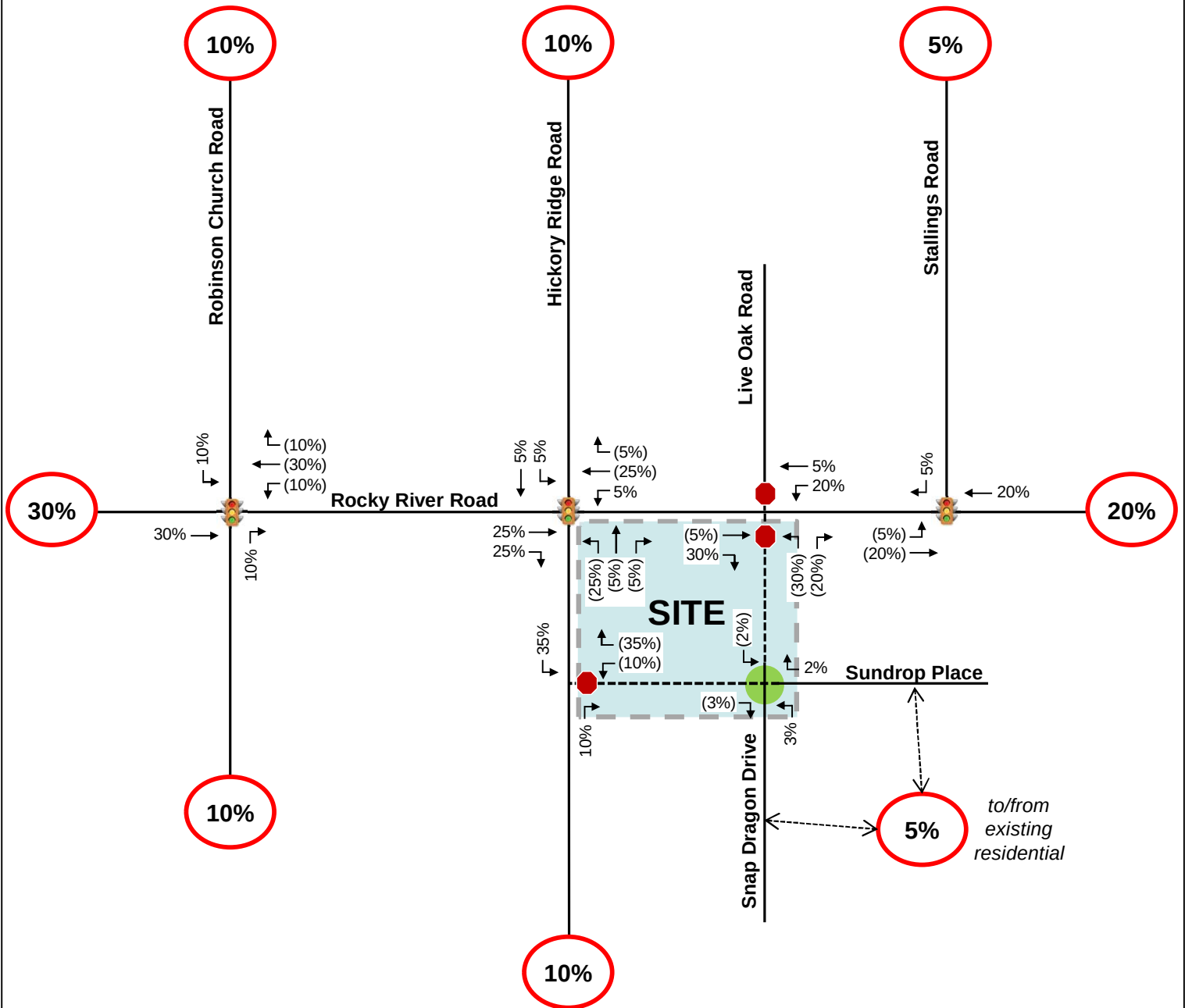
(XX%) Outbound Assignment

● Stop Control

🚦 Traffic Signal

● Not a Study Area Intersection

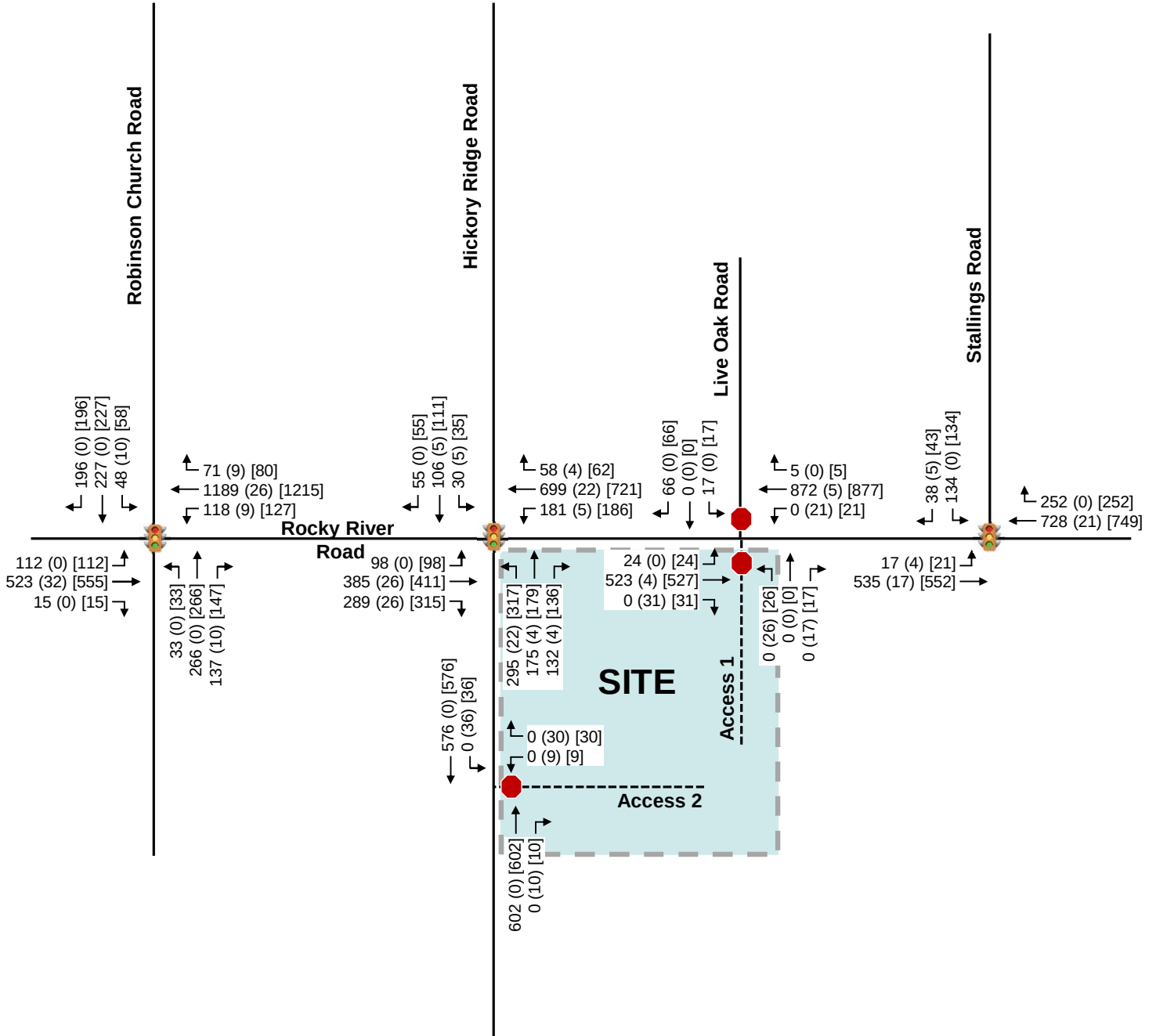
NOT TO SCALE



LEGEND

- XX Background Traffic Volumes
- (XX) Site Trips
- [XX] Build-out Traffic Volumes
- Stop Control
- 🚦 Traffic Signal

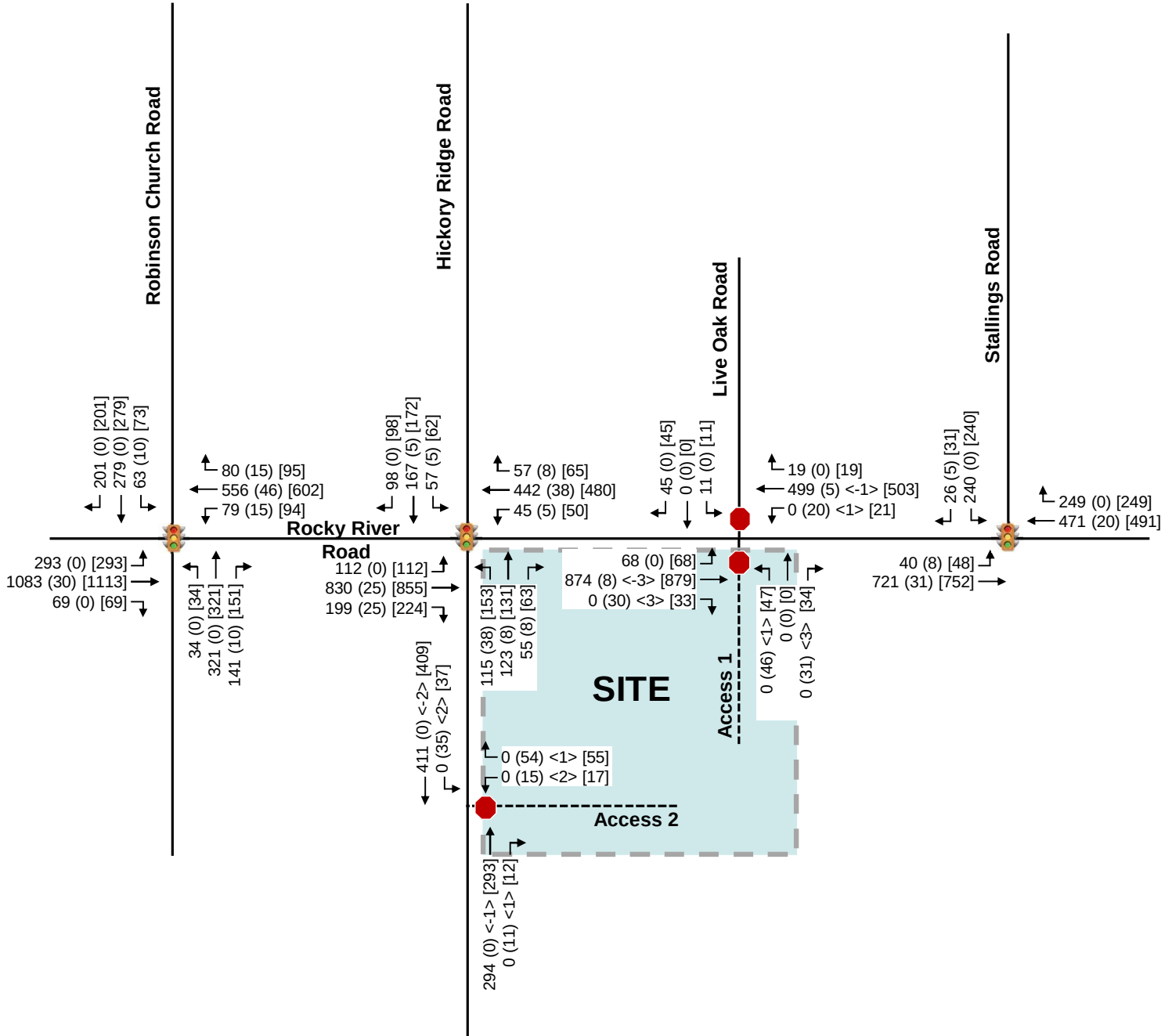
NOT TO SCALE



LEGEND

- XX Background Traffic Volumes
- (XX) Site Trips
- <XX> Pass-by Trips
- [XX] Build-out Traffic Volumes
- Stop Control
- 🚦 Traffic Signal

NOT TO SCALE



6.0 Capacity Analysis

Based on the requirements set forth by the *Town of Harrisburg Unified Development Ordinance – Appendix F* and in accordance with the traffic study guidelines in the *NCDOT Policy on Street and Driveway Access to North Carolina Highways*, capacity analyses were performed at the study area intersections for each of the following AM and PM peak-hour scenarios:

- 2020 Existing Conditions
- 2024 Background Conditions
- 2024 Build-out Conditions

Capacity analyses were performed for the AM and PM peak hours using the Synchro Version 10 software to determine the operating characteristics at the signalized and stop-controlled intersections of the adjacent street network and to evaluate the impacts of the proposed development. Capacity is defined as the maximum number of vehicles that can pass over a particular road segment, or through a particular intersection, within a specified period of time under prevailing operational, geometric and controlling conditions within a set time duration. This software program uses methodologies contained in the *Highway Capacity Manual* (HCM) to determine the operating characteristics of an intersection.

The *Highway Capacity Manual* (HCM) defines LOS as a “quantitative stratification of a performance measure or measures representing quality of service” and is used to “translate complex numerical performance results into a simple A-F system representative of travelers’ perceptions of the quality of service provided by a facility or service”. The HCM defines six levels of service, LOS A through LOS F, with A having the best operating conditions from the traveler’s perspective and F having the worst. However, it must be understood that “the LOS letter result hides much of the complexity of facility performance”, and that “the appropriate LOS for a given system element in the community is a decision for local policy makers”. According to the HCM, “for cost, environmental impact, and other reasons, roadways are typically designed not to provide LOS A conditions during peak periods but instead to provide some lower LOS that balances individual travelers’ desires against society’s desires and financial resources. Nevertheless, during low-volume periods of the day, a system element may operate at LOS A.”

LOS for a two-way stop-controlled (TWSC) intersection is determined by the control delay at the side-street approaches, typically during the highest volume periods of the day, the AM and PM peak periods. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. With respect to field measurements, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue to the time the vehicle departs from the stop line. It is typical for stop sign-controlled side streets and driveways intersecting major streets to experience long delays during peak hours, particularly for left-turn movements. The majority of the traffic moving through the intersection on the major street experiences little or no delay.

LOS for signalized intersections is reported for the intersection as a whole, and typically during the highest volume periods of the day, the AM and PM peak periods. One or more movements at an intersection may experience a low level-of-service, while the intersection as a whole may operate acceptably.

Table 6.0-A and **6.0-B** list the LOS control delay thresholds published in the HCM for unsignalized and signalized intersections, respectively, as well as the unsignalized operational descriptions assumed herein.

Table 6.0-A Vehicular LOS Control Delay Thresholds for Unsignalized Intersections		
Level-of-Service	Average Control Delay per Vehicle [sec/veh]	
A	≤ 10	Short Delays
B	> 10 – 15	
C	> 15 – 25	
D	> 25 – 35	Moderate Delays
E	> 35 – 50	
F	> 50	Long Delays

Table 6.0-B Vehicular LOS Control Delay Thresholds for Signalized Intersections	
Level-of-Service	Average Control Delay per Vehicle [sec/veh]
A	≤ 10
B	> 10 – 20
C	> 20 – 35
D	> 35 – 55
E	> 55 – 80
F	> 80

Using the signal timing plans provided by NCDOT, cycle lengths, splits, and offsets were optimized for the existing conditions analysis. A Congestion Management minimum cycle length of 120 seconds based on the phasing of the signalized intersections was also utilized. Intersection cycle lengths and splits were optimized in background conditions and utilized in build-out conditions.

The following modifications from the background data collected were applied to the capacity analyses to meet NCDOT *Congestion Management Capacity Analysis Guidelines*:

- Right-turn-on-red (RTOR) operations were not allowed.
- Protected-only left-turn phasing was used for analysis of future operations where protected/permitted left-turn phasing exists.
- Lost time adjust was added to the yellow and all-red times provided in the existing signal plans to maintain at total lost time of 5 seconds for each movement.
- A minimum of 4 vehicles per hour were used for permissible movements, excluding movements into and out of the proposed site.

In the existing condition, the observed peak hour factor (PHF) was used in the analysis. A weighted PHF was used for all future year conditions in the AM peak hour to account for the impacts of school traffic. A 0.9 PHF was used for all future conditions in the PM peak hour.

Capacity analysis reports generated by Synchro Version 10 software are included in the **Appendix**.

6.1 ROCKY RIVER ROAD AND ROBINSON CHURCH ROAD

Table 6.1 summarizes the LOS, control delay and 95th percentile queue lengths at the signalized intersection of Rocky River Road and Robinson Church Road.

Table 6.1 - Rocky River Road and Robinson Church Road										
Condition	Measure	EB		WB		NB		SB		Intersection
		EBL	EBTR	WBL	WBTR	NBL	NBT	SBL	SBTR	LOS (Delay)
AM Peak Hour										
2020 Existing	LOS (Delay)	C (25.6)		D (54.2)		E (59.9)		F (92.2)		E (56.9)
	Synchro 95th Q	88'	219'	54'	#1175'	-	394'	-	#655'	
2024 Background	LOS (Delay)	E (57.1)		F (200.0)		F (152.3)		F (159.7)		F (152.5)
	Synchro 95th Q	#265'	498'	#209'	#2055'	#101'	#734'	#140'	#794'	
2024 Build-out	LOS (Delay)	E (57.8)		F (213.8)		F (160.7)		F (173.4)		F (162.1)
	Synchro 95th Q	#265'	543'	#234'	#2128'	#101'	#757'	#170'	#794'	
PM Peak Hour										
2020 Existing	LOS (Delay)	D (48.4)		C (31.7)		D (42.6)		E (69.9)		D (48.0)
	Synchro 95th Q	136'	#907'	38'	404'	-	412'	-	#532'	
2024 Background	LOS (Delay)	F (136.3)		E (67.4)		F (105.9)		F (130.0)		F (115.1)
	Synchro 95th Q	#491'	#1709'	#198'	#849'	#102'	#738'	#187'	#770'	
2024 Build-out	LOS (Delay)	F (147.6)		F (89.4)		F (112.7)		F (142.1)		F (127.5)
	Synchro 95th Q	#491'	#1773'	#237'	#982'	#102'	#760'	#214'	#770'	
Existing/Background Storage		125'		125'		0/100'		0/200'		
Exceeds storage										
# 95th percentile volume exceeds capacity, queue may be longer										

The following laneage improvements were included in all future year conditions at this intersection based on committed improvements as part of the Grantham development:

- Construction of a northbound left-turn lane with 100 feet of storage.
- Construction of a southbound left-turn lane with 200 feet of storage (via \$50,000 contribution).

Based on projected volumes, these turn lanes were assumed to operate as permitted in all future year scenarios. As shown in **Table 6.1**, under 2024 background conditions, the overall intersection is expected to operate at LOS F in both peak hours.

It should be noted that the significant increase in LOS and delay from existing to background conditions is due to the changing of permitted protected phasing to protected only as well as the approved development volumes. The approved developments contribute to almost a quarter of the background volume.

With the addition of site traffic, the overall intersection is expected to remain at LOS F with increases in delay in both peak hours. However, the westbound approach is expected to drop from LOS E to LOS F in the PM peak hour. Due to the increases in delay and drop in LOS, mitigation should be considered at this intersection.

Per coordination with the Town and NCDOT, the proposed development should make a \$50,000 contribution to the left-turn lanes being constructed by the Town and the Grantham development.

6.2 ROCKY RIVER ROAD AND HICKORY RIDGE ROAD

Table 6.2 summarizes the LOS, control delay and 95th percentile queue lengths at the signalized intersection of Rocky River Road and Hickory Ridge Road.

Table 6.2 - Rocky River Road and Hickory Ridge Road													
Condition	Measure	EB			WB			NB			SB		Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	LOS (Delay)
AM Peak Hour													
2020 Existing	LOS (Delay)	B (13.4)			C (29.2)			C (32.8)			C (34.6)		C (24.2)
	Synchro 95th Q	35'	190'	32'	17'	418'	31'	70'	80'	-	33'	77'	
2024 Background	LOS (Delay)	D (53.6)			F (82.1)			E (70.1)			F (124.1)		E (73.0)
	Synchro 95th Q	149'	479'	194'	231'	#983'	52'	375'	200'	97'	60'	#231'	
2024 Build-out	LOS (Delay)	E (55.9)			F (88.4)			E (77.2)			F (128.5)		E (78.0)
	Synchro 95th Q	149'	#522'	216'	237'	#1031'	55'	#434'	204'	101'	70'	#246'	
PM Peak Hour													
2020 Existing	LOS (Delay)	C (20.4)			B (19.2)			C (30.4)			C (32.0)		C (22.6)
	Synchro 95th Q	40'	453'	36'	9'	202'	33'	30'	85'	-	57'	155'	
2024 Background	LOS (Delay)	D (43.8)			C (29.2)			E (60.3)			E (75.4)		D (46.9)
	Synchro 95th Q	156'	#960'	105'	81'	390'	42'	#217'	158'	70'	95'	#400'	
2024 Build-out	LOS (Delay)	D (45.3)			C (30.4)			F (93.4)			E (79.3)		D (53.0)
	Synchro 95th Q	156'	#1006'	119'	87'	435'	46'	#299'	168'	78'	102'	#408'	
Existing/Background Storage		150'		100'	150'		165'	125'/425'		0'/100'	150'		
Exceeds storage													
# 95th percentile volume exceeds capacity, queue may be longer													

The following laneage improvements were included in all future year conditions at this intersection based on the identified mitigation in the *Hickory Ridge Road Development TIA*:

- Construction of a northbound right-turn lane with 100 feet of storage.
- Extension of the northbound left-turn lane to provide 425 feet of storage.

As shown in **Table 6.2**, under 2024 background conditions, the overall intersection is expected to operate at LOS E and LOS D in the AM and PM peak hours, respectively. With the addition of site traffic, the overall intersection is expected to remain at LOS E and LOS D in the AM and PM peak hours. However, the eastbound approach is expected to drop from LOS D to LOS E in the AM peak hour and the northbound approach is expected to drop from LOS E to LOS F in the PM peak hour. Due to the increases in delay and drops in LOS, mitigation was considered at this intersection.

Per coordination with the Town and NCDOT, the site should dedicate future right-of-way along the frontage of the site on Rocky River Road and Hickory Ridge Road per the Town's Community Transportation Plan (CTP).

In the AM peak hour, the northbound left-turn queues are expected to exceed the background 425-foot storage length and the northbound right-turn queues are expected to exceed the background 100-foot storage length. The increase for each queue is less than one car; therefore, extension of these turn lanes is not recommended as developer mitigation.

6.3 ROCKY RIVER ROAD AND STALLINGS ROAD

Table 6.3 summarizes the LOS, control delay and 95th percentile queue lengths at the unsignalized intersection of Rocky River Road and Stallings Road.

Table 6.3 - Rocky River Road and Stallings Road					
Condition	Measure	EB	WB	SB	Intersection
		EBLT	WBTR	SBLR	LOS (Delay)
AM Peak Hour					
2020 Existing	LOS (Delay)	A (0.4)	A (0.0)	E (38.6)	-
	Synchro 95th Q	1'	0'	72'	
2024 Background	LOS (Delay)	B (12.3)	C (21.7)	E (63.4)	C (22.3)
	Synchro 95th Q	174'	491'	#196'	
2024 Build-out	LOS (Delay)	B (18.2)	C (23.6)	E (69.0)	C (25.9)
	Synchro 95th Q	213'	525'	#202'	
PM Peak Hour					
2020 Existing	LOS (Delay)	A (0.2)	A (0.0)	F (56.7)	-
	Synchro 95th Q	1'	0'	160'	
2024 Background	LOS (Delay)	C (23.1)	B (14.0)	D (37.1)	C (21.5)
	Synchro 95th Q	#453'	283'	#224'	
2024 Build-out	LOS (Delay)	C (27.9)	B (13.2)	D (44.1)	C (24.3)
	Synchro 95th Q	#504'	300'	#229'	
# 95th percentile volume exceeds capacity, queue may be longer					

As shown in **Table 6.3**, under 2020 existing conditions, the stop-controlled southbound approach of Stallings Road is expected to operate with moderate delays in the AM peak hour and long delays in the PM peak hour.

Based on the identified mitigation in the *Stallings Road Subdivision TIA*, the installation of a traffic signal was included in all future year conditions at this intersection.

Under 2024 background conditions, the overall intersection is expected to operate at LOS C during both peak hours. With the addition of site traffic, the overall intersection is expected to continue to operate at LOS C in both peak hours.

Therefore, no capacity improvements are recommended at this intersection due to the proposed site.

6.4 ROCKY RIVER ROAD AND LIVE OAK ROAD/ACCESS 1

Table 6.4 summarizes the LOS, control delay and 95th percentile queue lengths at the unsignalized tee-intersection of Rocky River Road and Live Oak Road/Access 1.

Table 6.4 - Rocky River Road and Live Oak Road/Access 1							
Condition	Measure	EB	WB	NB		SB	
		EBLTR	WBLTR	NBL	NBTR	SBL	SBTR
AM Peak Hour							
2020 Existing	LOS (Delay)	A (0.6)	A (0.0)	-		C (16.9)	
	Synchro 95th Q	1'	0'	-	-	-	17'
2024 Background	LOS (Delay)	A (1.2)	A (0.0)	-		F (61.3)	
	Synchro 95th Q	3'	0'	-	-	-	87'
2024 Build-out	LOS (Delay)	A (1.2)	A (0.9)	F (607.9)		F (157.7)	
	Synchro 95th Q	3'	2'	-	139'	-	148'
2024 Build-out IMP	LOS (Delay)	A (1.2)	A (0.9)	F (453.0)		F (71.0)	
	Synchro 95th Q	3'	2'	101'	3'	54'	30'
PM Peak Hour							
2020 Existing	LOS (Delay)	A (1.3)	A (0.0)	-		B (14.9)	
	Synchro 95th Q	4'	0'	-	-	-	9'
2024 Background	LOS (Delay)	A (2.1)	A (0.0)	-		E (44.5)	
	Synchro 95th Q	6'	0'	-	-	-	45'
2024 Build-out	LOS (Delay)	A (2.2)	A (1.3)	F (Err)		F (180.7)	
	Synchro 95th Q	6'	3'	-	Err	-	110'
2024 Build-out IMP	LOS (Delay)	A (2.2)	A (1.3)	F (5785.4)		F (106.6)	
	Synchro 95th Q	6'	3'	Err	11'	49'	8'

As shown in **Table 6.4**, under 2024 background conditions, the stop-controlled southbound approach of Live Oak Road is expected to operate with long delays in the AM peak hour and moderate delays in the PM peak hour. With the addition of site traffic and Access 1 (creating the 4th leg of this intersection), the stop-controlled southbound and northbound approaches of Live Oak Road and Access 1 are expected to operate with long delays in both peak hours. Due to the increase in delay, mitigation was considered at this intersection.

To mitigate the impact of site traffic, it is recommended that the southbound approach be restriped to provide a southbound left-turn lane and a shared through-right lane along Live Oak Road. Based on review of aerial imagery, the southbound approach appears to be between 20 and 24 feet, which would allow for the restriping.

The northbound approach of Access 1 is recommended to be constructed with a left-turn lane and a shared through-right lane to lower delay experienced on this stop-controlled approach. As shown on the site plan, the proposed cross access is about 125 feet back from the intersection. The northbound left-turn lane along Access 1 should extend back 125 feet to this point.

It should be noted that Access 1 is still expected to operate with long delays and queues even with separate turn lanes. Should drivers making the northbound left-turn movement not want to experience these delays, they have the option of using Access 2 along Hickory Ridge Road in order to reach the Hickory Ridge Road and Rocky River Road intersection. Sending the majority of northbound left-turn movements to Access 2 would result in LOS D at Access 1 in both peak hours while not impacting Access 2's delay.

6.5 HICKORY RIDGE ROAD AND ACCESS 2

Table 6.5 summarizes the LOS, control delay and 95th percentile queue lengths at the unsignalized tee-intersection of Hickory Ridge Road and Access 2.

Table 6.5 - Hickory Ridge Road and Access 2				
Condition	Measure	WB	NB	SB
		WBLR	NBTR	SBLT
AM Peak Hour				
2024 Build-out	LOS (Delay)	E (40.1)	A (0.0)	A (1.7)
	Synchro 95th Q	29'	0'	4'
PM Peak Hour				
2024 Build-out	LOS (Delay)	B (12.8)	A (0.0)	A (1.0)
	Synchro 95th Q	13'	0'	3'

This intersection provides site access via a full-movement connection to Hickory Ridge Road. As shown in **Table 6.5**, the stop-controlled westbound approach of the intersection is expected to operate with short to moderate delays under build-out of the site. No improvements are recommended at this intersection for capacity purposes.

As discussed in **Section 6.4**, if the majority drivers making the northbound left-turn movement at Access 1 utilize Access 2 instead, the delay is not expected to be negatively impacted.

Based on the anticipated queues on the westbound approach, an internal protected stem of 100 feet is recommended.

7.0 Auxiliary Turn Lane Warrants

Warrants for additional turn-lane improvements for unsignalized intersection beyond those necessary for capacity were determined based on a review of the figure titled 'Warrant for Left and Right-Turn Lanes' found on page 80 in the *NCDOT Policy On Street And Driveway Access to North Carolina Highways*. The results of the warrants for left and right-turn lanes under 2024 background and build-out conditions are summarized by intersection below and included in the **Appendix**.

Rocky River Road and Live Oak Road/Access 1

2024 Background Conditions

- Eastbound left-turn lane along Rocky River Road with a minimum storage length of 75 feet

2024 Build Conditions

- Eastbound left-turn lane along Rocky River Road with a minimum storage length of 75 feet
- Eastbound right-turn lane along Rocky River Road with a minimum storage length of 50 feet
- Westbound left-turn lane along Rocky River Road with a minimum storage of 50 feet

Based on coordination with NCDOT, an eastbound left-turn lane with a minimum of 100 feet of storage will be required on Rocky River Road. This should create a three-lane section along Rocky River Road, between Hickory Ridge Road and Live Oak Road.

An eastbound right-turn lane and a westbound left-turn lane along Rocky River Road are recommended as mitigation for the Shoppes at Hickory Ridge development. Based on NCDOT Congestion Management Capacity Analysis Guidelines, full storage for both right- and left-turn lanes should accommodate a minimum of 100 feet. Therefore, an eastbound right-turn lane and a westbound left-turn lane with a minimum of 100 feet of storage is recommended as mitigation.

Hickory Ridge Road and Access 2

2024 Build Conditions

- Southbound left-turn lane along Hickory Ridge Road with a minimum storage length of 50 feet

Based on coordination with NCDOT, a southbound left-turn lane with a minimum of 100 feet of storage is recommended as mitigation for the Shoppes at Hickory Ridge development.

8.0 Crash Data Analysis

Crash data was obtained at study intersections for crashes that occurred between July 1, 2017 and June 30, 2020. Over this three-year period, 31 total crashes were reported at the four study intersections. The breakdown of crashes at these four study intersections by severity, frequency, and accident type can be seen the tables below.

Table 8.1 – Crash Severity Summary

Crash Type	Number of Crashes
Fatal Crashes	0
Class A	0
Class B	0
Class C	8
Property Damage Only	23
Total	31

Table 8.1 above displays the total number of crashes by severity type from most to least severe. As shown, there were no fatal or Class A crashes reported in the study area intersections over the past three years. 'Class A' incidents are crashes in which serious injury is suspected, which can include significant loss of blood or broken bones. 'Class B' incidents are crashes in which minor injury is suspected, such as bruises or minor cuts. There were none of these crash types within the study area reported over the three years. There were 8 'Class C' crashes reported, which are defined as crashes wherein possible injuries occur. Possible injuries are injuries reported by the person or indicated by his/her behavior, but no wounds or injuries are physically present, such as limping or complaint of neck pain. There were 23 crashes in which only property damage occurred, meaning no injury was reported in 74% of the recorded crashes at the study intersections.

Table 8.2 – Accident Frequency Summary

Location	Crashes/100 MEV
Robinson Church Road and Rocky River Road	55.70
Hickory Ridge Road and Rocky River Road	32.02
Rocky River Road and Stallings Road	52.91
Rocky River Road and Live Oak Road	34.42
Average	45.05

Shown in **Table 8.2** are the accident frequency rates for each study intersection, reported in crashes per 100 million entering vehicles (MEV). Their rates resulted in a weighted average crash rate of 45.05 crashes per 100 MEV, with the highest rate occurring at the intersection of Robinson Church Road and Rocky River Road.

Table 8.3 – Accident Type Summary

Crash Type	Robinson Church Road and Rocky River Road	Hickory Ridge Road and Rocky River Road	Rocky River Road and Stallings Road	Rocky River Road and Live Oak Road
Angle	3	2	0	0
Animal	0	1	0	0
Left-Turn, Different Roadways	0	0	7	1
Left-Turn, Same Roadway	2	0	0	0
Rear End, Slow or Stop	7	3	1	3
Right-Turn, Different Roadways	1	0	0	0
Total	13	6	8	4

As seen in **Table 8.3**, at the four study intersections, the most common crash type was a rear-end collision caused by slowing or stopping, with 45% of crashes. This crash type is often associated with mainline traffic along a corridor with unsignalized turning movements with the lack of turn lanes onto side-streets. The second most common crash type was a left-turn collision from different roadways.

9.0 Mitigation Improvements

Based on the capacity analyses performed at each of the identified study intersections, the following improvements have been identified to mitigate the impact of the proposed development on the adjacent street network:

Robinson Church Road and Rocky River Road

- Contribution of \$50,000 to the left-turn lanes along Robinson Church Road.

Hickory Ridge Road and Rocky River Road

- Dedication of future right-of-way along the frontage of the site on Rocky River Road and Hickory Ridge Road per the Town's CTP.

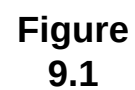
Rocky River Road and Live Oak Road/Access 1

- Restripe the southbound approach of Live Oak Road to include a separate left-turn lane with a minimum of 100 feet of storage and a shared through-right lane.
- Construction of the northbound approach of Access 1 with one ingress & two egress lanes and an internal protected stem of 125 feet.
- Construction of an eastbound right-turn lane along Rocky River Road with a minimum of 100 feet of storage.
- Construction of an eastbound left-turn lane along Rocky River Road with a minimum of 100 feet of storage. This should create a three-lane section along Rocky River Road, between Hickory Ridge Road and Live Oak Road.
- Construction of a westbound left-turn lane along Rocky River Road with a minimum of 100 feet of storage.

Hickory Ridge Road and Access 2

- Construction of a southbound left-turn lane along Hickory Ridge Road with a minimum of 100 feet of storage.
- Construction of the westbound approach of Access 2 with one ingress & one egress lane and an internal protected stem of 100 feet.

The mitigation improvement identified within the study area are shown in **Figure 9.1**. The improvements shown on this figure are subject to approval by NCDOT and the Town of Harrisburg. All additions and attachments to the State and Town roadway system shall be properly permitted, designed and constructed in conformance to standards maintained by the agencies.



APPENDIX



TOWN OF HARRISBURG

Agenda Item Details

Title:

H2021-1-(S) Courtyards on Robinson Church Preliminary Plat.

Presenting Personnel:

Sushil Nepal, Planning & Economic Development Director

Suggested Motion or Action:

If approved, the following motion is suggested:

To approve the Preliminary Plat application as requested by the applicant for the related property in application H-2021-1(S).

If denied, the following motion is suggested:

To deny the Preliminary Plat application as requested by the applicant for the related property in application H-2021-1(S).

Description/Background:

McKim and Creed, on behalf of Epcon Communities has submitted a Preliminary Plat application for 77 age-restricted (55+ only) single family homes, located on the southwest corner of the Tom Query Road and Robinson Church Road intersection. The site pin is 5507-50-8410-0000 and consists a total area of 32.85 acres. The subject property was rezoned in 2020 (Case #H2019-03-R)) to CZ-RV to allow for 77 age-restricted single family homes.

A staff report is attached for more information and a site plan along with development notes is submitted for your consideration. Staff has reviewed the site plan in accordance with the Harrisburg Area Land Use Plan (HALUP) and Unified Development Ordinance (UDO).

Recommendation:

Staff has reviewed the submitted preliminary plat, and has found it to be consistent with the approved conditional zoning site plan (H2019-03-R), the Harrisburg Area Land Use Plan (HALUP) and the standards of the UDO for CZ-RV districts.

Staff recommends that the Planning and Zoning Board recommend approval of the proposed preliminary plat to the Town Council, with the inclusion of the conditions of the approved conditional rezoning plan.

Fiscal Impact:

None.

Attachments:

1. H2021-01-S_Preliminary Plat Application
2. H2021-01-S_Site Map
3. H2021-01-S_Preliminary Plat Staff Report
4. H2021-01-S_Preliminary Plat
5. H2021-01-S_Epcon-ElevationExamples
6. H2021-01-S_Street Name Approval

7. Rezoning Approval Letter - 7800 Robinson Church Road
8. 7800 RobinsonChurchRd_RezoningPlan_Approved



Application for Preliminary Plat Review and Approval

For an application to be considered complete, you must submit the following information to the Town of Harrisburg Planning Department:

1. One (1) copy of the signed Pre-submittal Meeting Checklist completed at the required pre-submittal meeting.
2. One (1) complete Town of Harrisburg Preliminary Plat Application
3. Five (5) FOLDED copies of the final plat (blue/black lines), and One (1) digital version (PDF)
4. Plat review fee (\$1000.00 + \$25 per lot)
5. One (1) completed Street Name Review and Confirmation Form
6. Required number of copies of the Transportation Impact Analysis (Number of copies to be submitted to be determined at pre-submittal meeting)

NOTE: Incomplete Applications will not be processed by the Planning and Zoning Department, and will be returned to the Applicant.

Project Information	
1. Name of Subdivision:	Robinson Church
2. Location of Subdivision:	7800 Robinson Church Road, Harrisburg, NC 28075
3. Cabarrus County PIN Numbers:	5507508410
4. Current Zoning:	RE
5. Project Classification (Residential, Commercial, etc.):	Residential
6. Is this a CU or CZ Project?	☒ YES: Case Number: H2019-03-(R) ☐ NO
7. Date of Rezoning Approval:	11-09-2020 Subdivision Case #: H2019-03-(R)
Owner/Developer Information	
1. Property Owner Name:	Parks H. Howie & Carolyn O. Howie Property Owner Phone:
Property Owner Email:	
2. Agent/Developer Name:	Mike Davis Agent/Developer Phone: 704-589-4821
Agent/Developer Email: 11020 David Taylor, Suite 105, Charlotte, NC 28262	
3. Contact for Comments Name:	Tracey McCormick Contact for Comments Phone: 704-841-2588
Contact for Comments Email: tmccormick@mckimcreed.com	
Utilities	
Water Sewer	
1, Who will provide water and sewer services for this site?	☐ Private ☒ Public ☐ Private ☒ Public
	Provider <u>Town of Harrisburg Public Works</u> Provider <u>Town of Harrisburg Public Works</u>
Overlay District (Article 4)	
Is the subject property located in an Overlay Zone? ☐ YES: ☒ NO	
If YES, which one(s): _____	

Flood Panel and RSOD Information (Article 4)

Is the subject property located in an area regulated by the Floodplain Overlay District? ☐ YES: ☐ NO

Flood Panel Number(s) 3710550700K Map Date 11/16/2018

Is the subject property in the RSOD? ☐ YES: ☒ NO

If YES, has the RSOD been shown on the plan and have the calculations been submitted with the plan?

☐ YES: ☐ NO

Verification of Process

I, Mike Davis, submit that all of the information contained in this application is true and correct and also understand that incomplete applications will not be processed by the Town of Harrisburg Planning Department.

Date: 1/13/2021

Signed: [Signature]

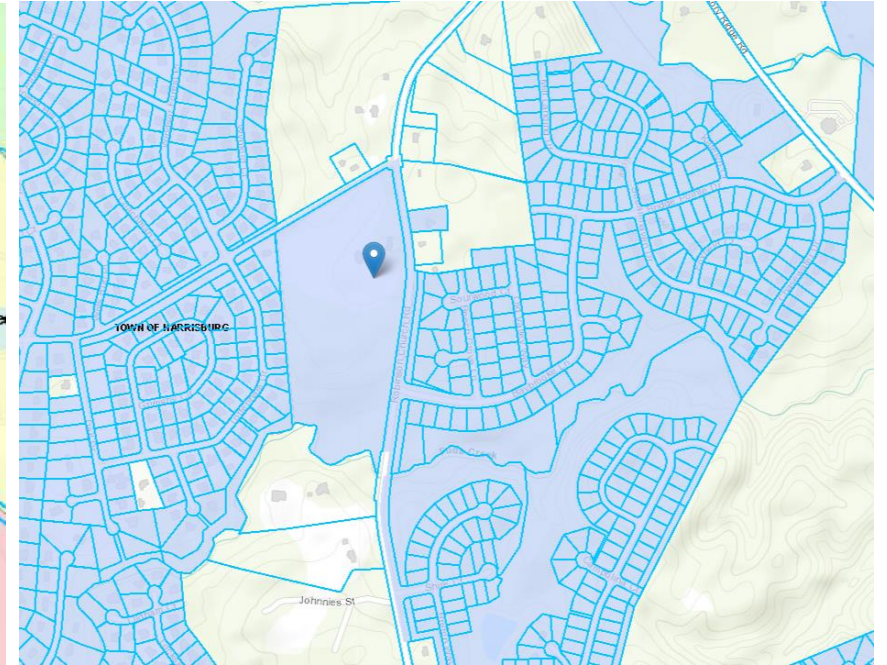
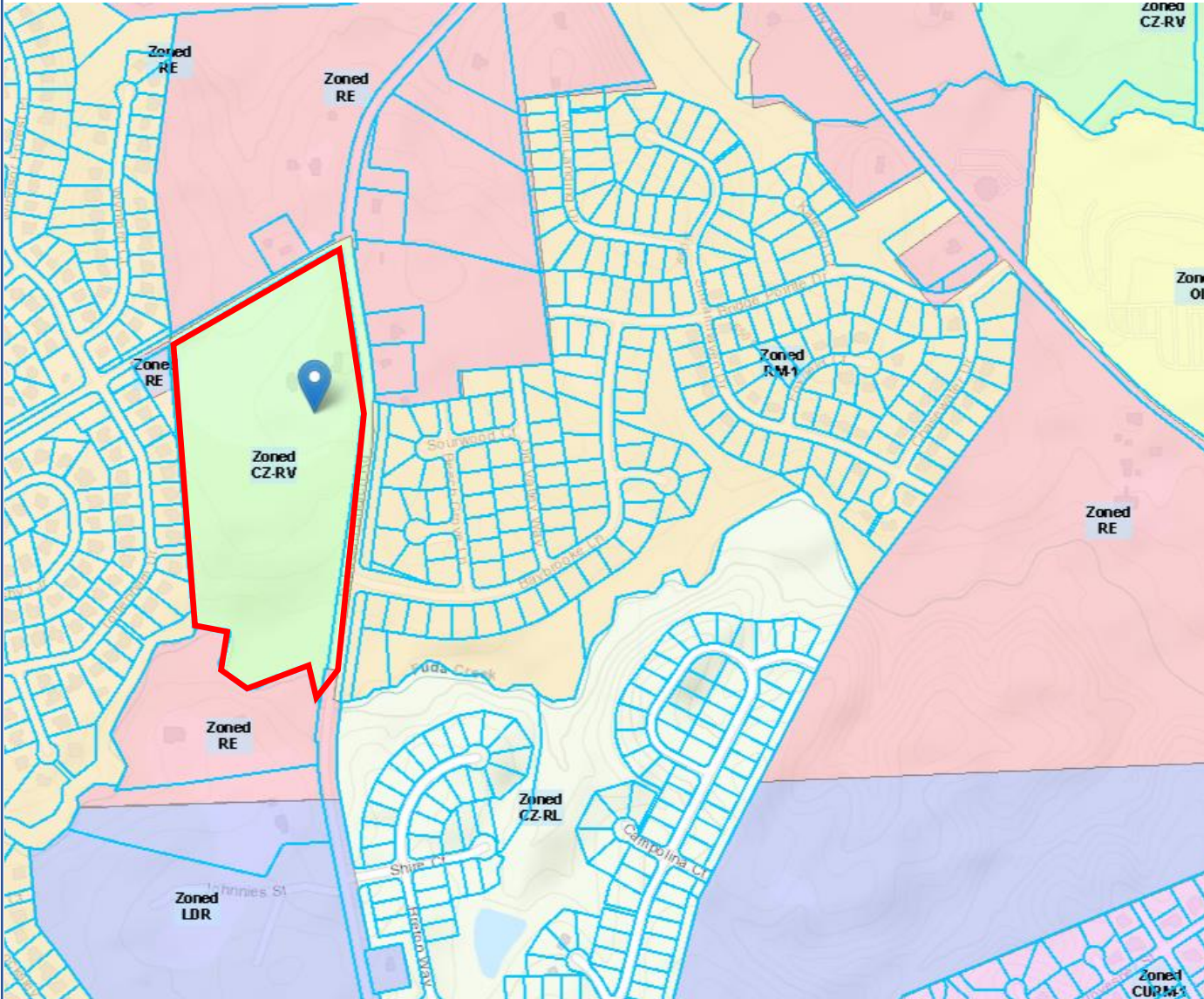
Title: DIRECTOR OF LAND DEVELOPMENT

(Owner, Agent, Developer, LLC Member, etc.)

Do not write below this point

For Staff Use Only:

Subdivision application fee paid: _____ Check Number: _____



H2019-03(R) Preliminary Plat Request

Parcel Identification Number:
5507-50-8410

Applicant: Epcon Communities

Map Created: July 2021





Town of Harrisburg
Planning and Economic Development Department
Preliminary Plat – Staff report

DATE: July 13, 2021

SUBJECT: H2021-01-(S) **Courtyards on Robinson Church**, Preliminary Plat

Owner/ Developer: Epcon Communities; represented by McKim & Creed (Tracy McCormick)

Location: The subject property is located on the southwest corner of the Tom Query Road and Robinson Church Road intersection.
PIN number: 5507-50-8410-0000

BACKGROUND:

Area: Approximately 32.85 acres

Zoning: CZ-RV Conditional Zoning Residential Village (H2019-03-R)

Staff Report prepared by: Craig Thomas, Planning and Economic Development Department

GENERAL DISCUSSION:

- The applicant is requesting that the Preliminary Plat be reviewed and approved to allow 77 single family residential lots, **age restricted for 55 years and older**.
- Staff has reviewed the submitted preliminary plat and has found it to be consistent with the approved conditional zoning site plan and the standards of the UDO. Staff has recommended conditions of approval as outlined in this staff report, consistent with the Rezoning approval H2019-03-R.

APPROVAL CRITERIA:

1. The proposed land uses are in accord with the adopted *Comprehensive Plan* and the *Official Zoning Map*, or that the means for reconciling any differences have been addressed. A Preliminary Plat may be processed concurrently with a rezoning request.

Per the Harrisburg Area Land Use Plan (HALUP), the subject property is located in an area designated as Medium Density Residential. This area is comprised of predominantly single-family detached homes but may include attached single family units, such as townhomes and duplexes. The mix of housing types are intended to create neighborhoods with a density range of 3 to 4 dwelling units per acre. Improved open spaces are interspersed and the streetscape is more formal.

With regard to the overall goals of the Land Use Plan, **recommendation LU-5** states that the Town should “Expand Housing Options” to appeal to a broad range of audiences. It specifically mentions offering a housing product that could appeal to residents wishing to age in place. The Plan’s demographic section documents that “the Planning area has a growing mature population with more than 40 percent of households being over the age of 55”. The Market Conditions Projections section states that close to half of the future demand for for-sale housing will be for homes and villas on smaller lots.

Recommendation LU-7 of the Plan recommends consistency between the Town’s zoning regulations and the adopted Future Land Use Map. A table included as part of this goal establishes the “appropriate” zoning districts to use when making zoning decisions based on the Future Land Use Map. The map, as previously stated, designates this area as Medium Density Residential. The table indicates that the RV district is appropriate for this land use classification.

- 2. The proposed subdivision conforms to all relevant requirements of this ordinance and to any variances that have been granted to permit any nonconformance. The plat shall meet all requirements of this Ordinance with respect to lot size and area, and in no way create a violation of any applicable current ordinances, statutes or regulations.**

There are no existing or proposed variances for the subject property. The preliminary plat, as presented, is consistent with the approved conditional zoning site plan H2019-03-R, which governs the development standards for the site.

- 3. The proposed development, including its lot sizes, density, access and circulation, are compatible with the existing and/or permissible future use of adjacent property.**

The approval of the conditional zoning map amendment and associated site plan and conditions for the subject property established that the proposed development is compatible with the surrounding area. The zoning districts of the surrounding properties are residential in nature. The properties to the east and west have similar size lots and densities whereas the properties to the south and north are mostly vacant or existing homes.

4. **That the proposed subdivision will not have detrimental impacts on the safety or viability of permitted uses on adjacent properties.**

The proposed project is a residential detached subdivision, restricted to age 55 years and older population. The approved density and layout are compatible with surrounding development. An approval of this preliminary plat would allow the development to continue with subsequent approvals necessary for development of the property.

5. **That the soils and topography have been adequately studied to ensure that all lots are developable for their designated purposes.**

The subject property will be served by public utilities (water and sewer) therefore; soil suitability is not a primary concern. Regarding the topography, the applicant will be required to submit a Soil and Erosion Control Plan to NCDEQ for review and approval. In addition, the applicant will also be required to submit construction drawings to the Town of Harrisburg for review and approval regarding utility placement and lot design standards.

6. **That any land located within Zone A, as shown on the currently adopted Flood Boundary and Floodway Maps of the Flood Insurance Study, is determined to be suitable for its intended use and that the proposed subdivision adequately mitigates the risks of flooding, inadequate drainage, soil and rock formations with severe limitations for development, severe erosion potential, or any other floodplain-related risks to the health, safety or welfare of the future residents of the proposed subdivision in a manner consistent with this ordinance, as described in § 4.14 of this Ordinance.**

The proposed development will be subject to the regulations set forth in the Unified Development Ordinance as well as any State or Federal regulations related to floodplain development and/or wetlands regulations. In addition, the development will be subject to NCDEQ sedimentation and erosion control standards. A portion of this property lies within Flood Zone AE on the latest FEMA FIRM and will remain undisturbed.

7. **The proposed name of a subdivision shall be approved by the Cabarrus County E-911 Coordinator(s) and shall not use a word, or phrase, which is the same as, similar to, or pronounced the same as a word or phrase in the name of any other subdivision in Cabarrus County or any municipality or jurisdiction in the County. Proposed subdivisions may only use a duplicate subdivision name in the event that the Administrator requires the use of the same name for purposes of clear identification.**

The proposed name of the subdivision is Courtyards on Robinson Church. This name has been approved for use by the Cabarrus County E-911 Coordinator. All street names have been reviewed and approved by Cabarrus County E-911 Coordinator.

Adequate Public Facilities Review:

SCHOOLS

This part of the Unified Development Ordinance is no longer enforceable as determined by the NC Supreme Court. However, the schools have provided the following data on school capacity:

The proposal is for an age-restricted (55 plus) adult community, so the generation of school-age populations is extremely unlikely. In recognition of the community's characteristics, Cabarrus County Schools states that they do not estimate students from age-restricted communities.

TRANSPORTATION

NCDOT has reviewed the preliminary plat and approved the proposed entrances off Robinson Church Road and Tom Query Road. The developer has committed to installation of sidewalks along the Robinson Church and Tom Query frontages, some perimeter road widenings to accommodate turn movements into the development and participate with the Town in realignment of Robinson Church and Tom Query intersection. The project will also build and deliver a section of adopted greenway along the creek and a pedestrian crossing signal will be installed at the crossing on Robinson Church Rd as noted on the Preliminary Plat.

FIRE, POLICE SANITATION

Adequate fire, police and sanitation services are available through the Town of Harrisburg.

UTILITIES

Utilities are available through the Town of Harrisburg. Applicant will be required to extend the water line and sewer line to their site.

CONDITIONS:

In considering an application for a subdivision plat, the decision-making agency shall consider and may impose modifications or conditions to the extent that such modifications or conditions are necessary to ensure compliance with the criteria of Section 6.2 of the UDO.

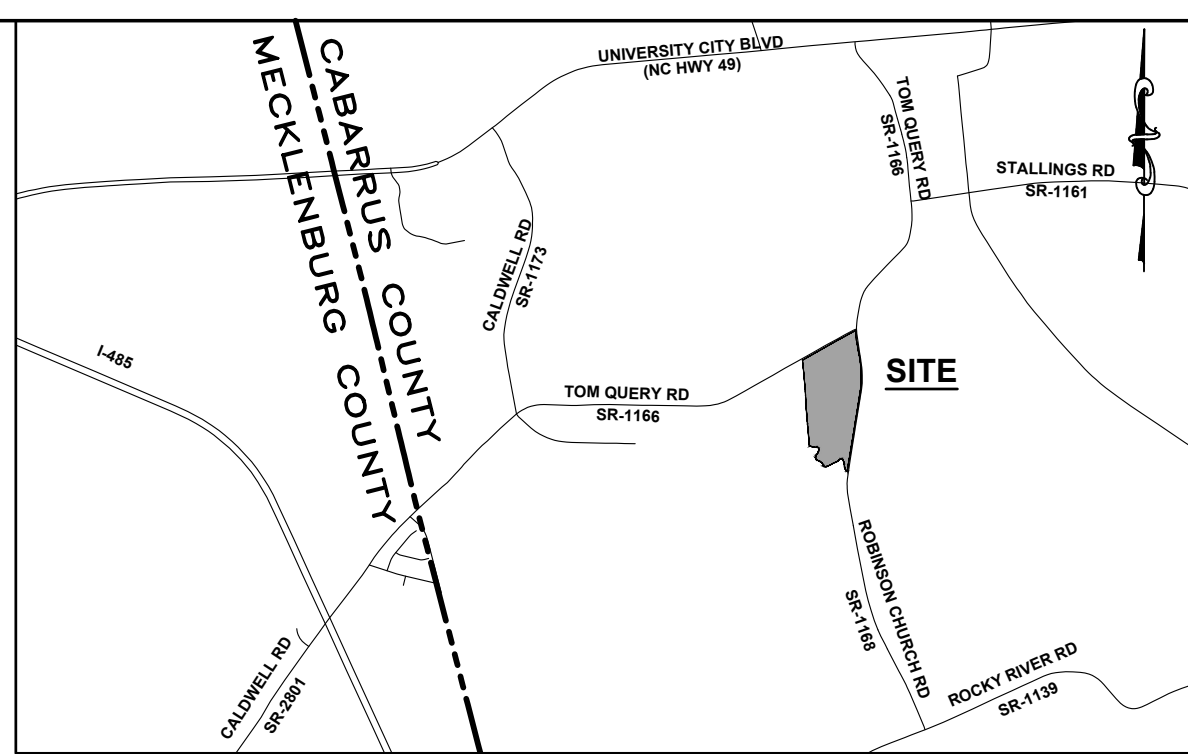
Should the Planning and Zoning Board recommend approval of the preliminary plat for the Courtyards at Robinson Church, staff requests that the following original conditions (H2019-03-R) become part of the approval, which are inclusive of the conditions agreed to as part of the approval:

1. Applicant agrees to obtain any and all applicable local, state, and federal permits required for development before any development activity can take place.
2. Applicant agrees the community will be age-restricted and require 90% of the home owners will be 55 or older, through deed restrictions.
3. Applicant agrees to restrict exterior cladding materials to non-vinyl products.
4. Applicant agrees to construct a ten (10) foot wide paved greenway trail connection and dedicate a twenty-five (25) foot wide easement to provide access to the greenway connection from the proposed development, to Robinson Church Road, and to the

- adjoining Fenton Dell community (including constructing the paved trail to Tottenham Drive).
5. Applicant agrees to install a pedestrian crosswalk and signal on the greenway crossing at Robinson Church Rd.
 6. Applicant agrees to work collaboratively with the Town Staff and the NC Department of Transportation in identifying and participating in the development of right-of-way improvements on perimeter roads, including left and right turn lanes at site entrances, re-alignment of Tom Query Road at its intersection with Robinson Church Road, and a street lighting plan.
 7. Applicant agrees to identify any potential tree save areas (including heritage trees) on the site that might be able to be retained post-development.
 8. Applicant agrees that all stormwater control measures shall be wet ponds with fountain(s), with minimum depth of 10 feet over 25% of the permanent pool area.

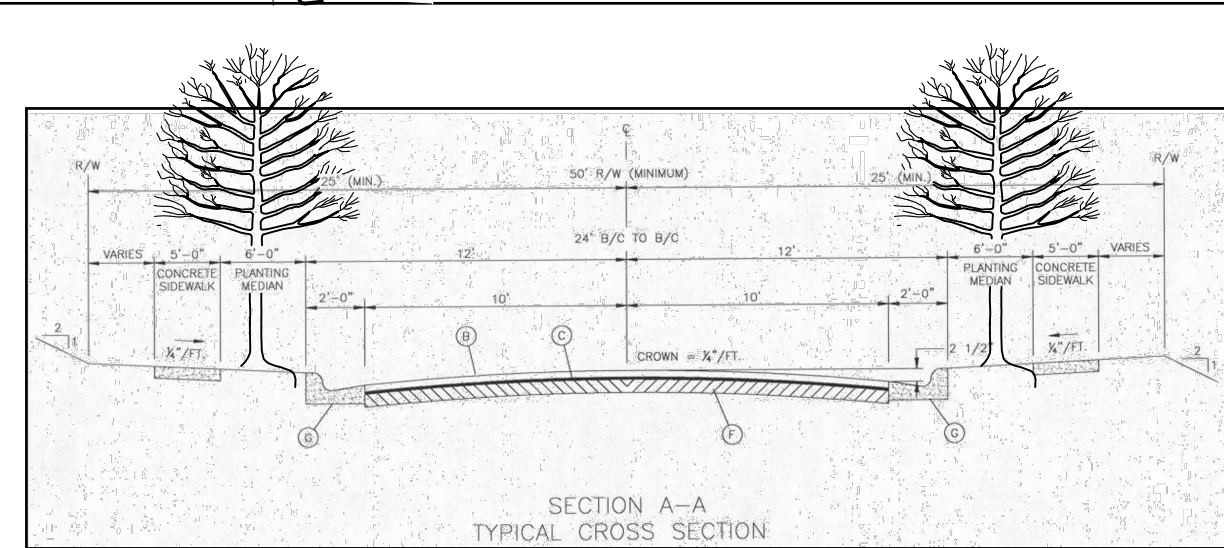
RECOMMENDATION:

The preliminary plat is consistent with the Harrisburg Area Land Use Plan, the RV zoning designation and the approved conditional rezoning plan H2019-03-R. Therefore, the Planning and Zoning Department recommends approval of this preliminary plat application for Courtyards on Robinson Church.



- GENERAL NOTES:
1. BOUNDARY INFORMATION AND TREE SURVEY PROVIDED BY McKIM & CREED, DATED 02/24/2020.
2. ACCESS POINTS MUST BE STAKED IN THE FIELD FOR VERIFICATION OF SIGHT DISTANCE.
3. ALL ROADS SHALL BE DESIGNED ACCORDING TO THE TOWN OF HARRISBURG & NCDOT STANDARDS.
4. 25' X 25' SIGHT TRIANGLE EASEMENTS SHALL BE PROVIDED AT ALL INTERNAL INTERSECTIONS.
5. 25' X 50' SIGHT TRIANGLES SHALL BE PROVIDED AT THE ROBINSON CHURCH ENTRANCE.
6. THE SUBDIVISION WILL BE SERVED BY PUBLIC WATER AND GRAVITY SEWER SERVICE FROM THE TOWN OF HARRISBURG. ALL WATER AND SEWER EXTENSIONS REQUIRED FOR THIS PROJECT ARE THE RESPONSIBILITY OF THE DEVELOPER.
7. ADA RAMPS SHALL BE PLACED AT ALL INTERSECTIONS. ADA RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT ADA REQUIREMENTS.
8. A LIGHTING PLAN WILL BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL THAT WILL COMPLY WITH THE TOWN OF HARRISBURG STREET LIGHTING REQUIREMENTS.
9. BMP TO BE LANDSCAPED WITH FOUNTAIN AND FENCED.
10. HERITAGE TREES TO BE REMOVED DURING CONSTRUCTION SHALL BE MITIGATED PURSUANT TO ARTICLE 9 OF THE U.D.O.
11. LOTS 1.4 & 10-12 WILL BE DEED RESTRICTED LOTS WITH THE PERIMETER BUFFER IN THE REAR YARDS UP TO THE REQUIRED BUILDING SETBACKS.
12. APPLICANT AGREES TO OBTAIN ANY AND ALL APPLICABLE LOCAL, STATE AND FEDERAL PERMITS REQUIRED FOR DEVELOPMENT BEFORE ANY DEVELOPMENT ACTIVITY CAN TAKE PLACE.
13. APPLICANT AGREES THE COMMUNITY WILL BE AGE-RESTRICTED AND REQUIRE 90% OF THE HOME OWNERS WILL BE 55 OR OLDER, THROUGH DEED RESTRICTIONS.
14. APPLICANT AGREES TO RESTRICT EXTERIOR CLADDING MATERIALS TO NON-VINYL PRODUCTS.
15. APPLICANT AGREES TO CONSTRUCT A TEN (10) FOOT WIDE PAVED GREENWAY TRAIL CONNECTION AND DEDICATED A TWENTY-FIVE (25) FOOT WIDE EASEMENT TO PROVIDE ACCESS TO THE GREENWAY CONNECTION FROM THE PROPOSED DEVELOPMENT, TO ROBINSON CHURCH ROAD, AND TO THE ADJOINING FENTON DELL COMMUNITY (INCLUDING CONSTRUCTING THE PAVED TRAIL TO TOTTEMHAM DRIVE.
16. APPLICANT AGREES TO INSTALL A PEDESTRIAN CROSSWALK AND SIGNAL ON THE GREENWAY CROSSING AT ROBINSON CHURCH ROAD.
17. APPLICANT AGREES TO WORK COLLABORATIVELY WITH THE TOWN STAFF AND THE NC DEPARTMENT OF TRANSPORTATION IN IDENTIFYING AND PARTICIPATING IN THE DEVELOPMENT OF RIGHT-OF-WAY IMPROVEMENTS ON THE PERIMETER ROADS, INCLUDING LOTS 4 TO THE RIGHT TURN LANES AT SITE ENTRANCES. REALIGNMENT OF TOM QUER ROAD AT ITS INTERSECTION WITH ROBINSON CHURCH ROAD, AND A STREETLIGHTING PLAN.
18. APPLICANTS AGREE TO IDENTIFY ANY POTENTIAL TREE SAVE AREAS (INCLUDING HERITAGE TREES) ON THE SITE THAT MIGHT BE ABLE TO BE RETAINED POST-DEVELOPMENT.
19. AREA WITHIN THE COMMON OPEN SPACE WILL BE DEED RESTRICTED FOR THE PERIMETER BUFFER 6' BERM TO BE INSTALLED.

BLOCK	LOTS	LENGTH / PERIMETER
A	1 - 17	939'
B	17 - 22	398'
C	23 - 28	347'
D	29 - 36	447'
E	37 - 42	305'
F	42 - 47	321'
G	48 - 60	1,394'
H	61 - 70	1,148'
J	71 - 77	1,100'



OPEN SPACE HATCH KEY

	PASSIVE OPEN SPACE
	ACTIVE OPEN SPACE

OWNER:

NAME: PARKS HUNTER HOWIE & CAROLYN OSBORNE HOWIE
ADDRESS: P.O. BOX 248 HARRISBURG, NC 28075

DEVELOPER:

NAME: EPCON COMMUNITIES
CONTACT: MIKE DAVIS
ADDRESS: 11020 DAVID TAYLOR DRIVE, STE 105
CHARLOTTE, NC 28262
PHONE # (CELL): (704) 589-4821
EMAIL: MDAVIS@EPCONCOMMUNITIES.COM



A	ADDRESSED TRC COMMENTS		03/31/21
REV.NO.	DESCRIPTIONS REVISIONS	DATE	

This electronic document is the property of

McKim & Creed, Inc.

and is not to be used for any purpose without the written consent of the engineer whose seal appears on the original certified document.

DO NOT REMOVE FROM
ELECTRONIC FILE



THE COURTYARDS ON ROBINSON CHURCH
TOWN OF HARRISBURG, NC
ROBINSON CHURCH ROAD

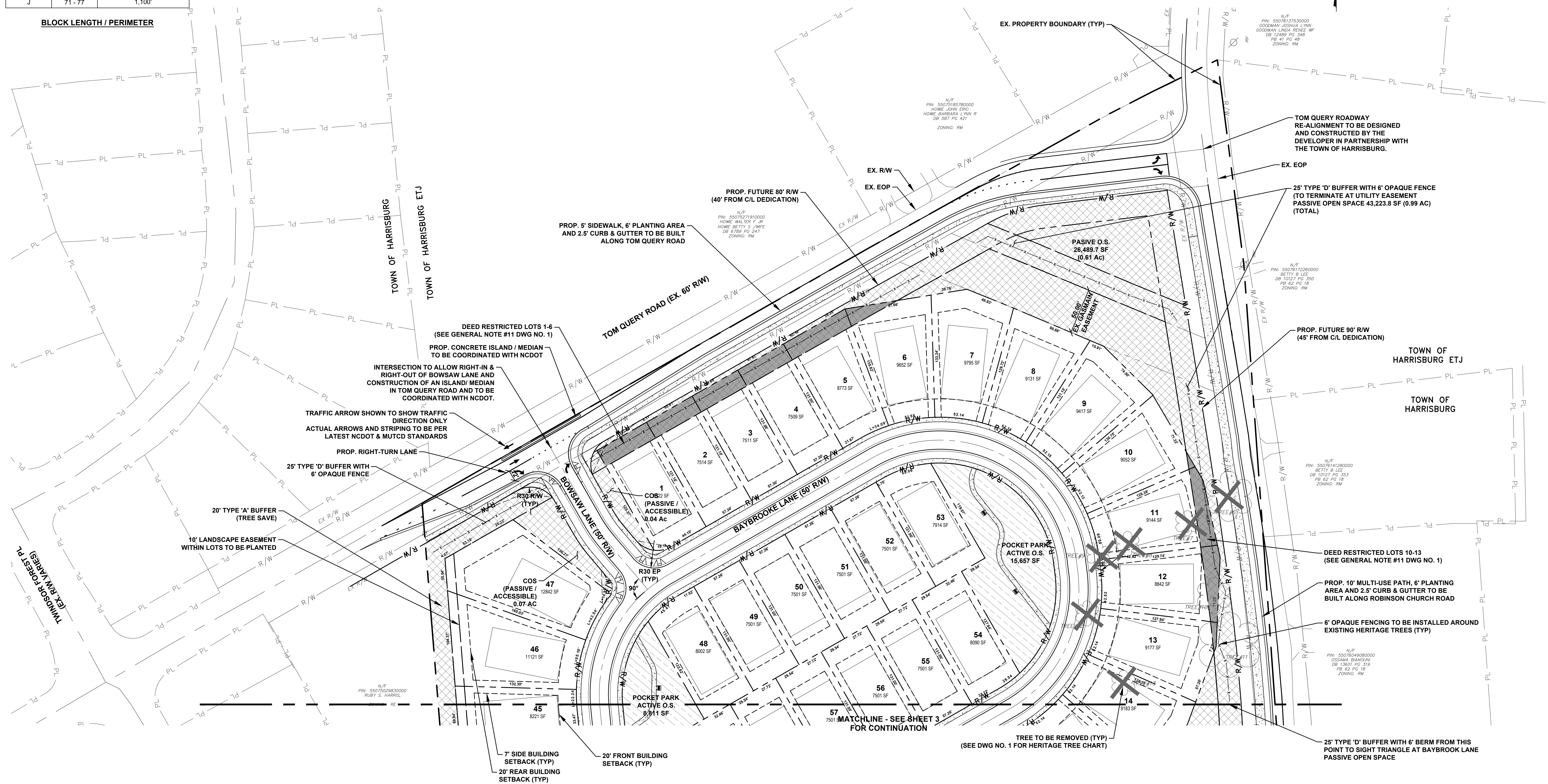
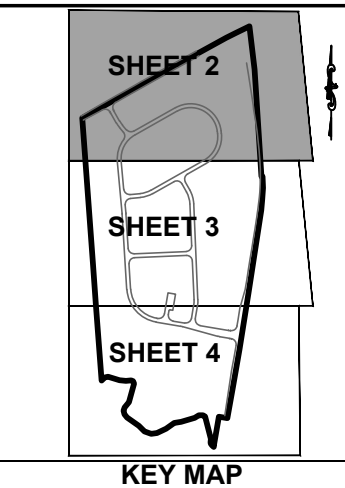
PRELIMINARY PLAT
OVERALL SITE PLAN

DATE: JANUARY 2021	SCALE	1 1 of 6 DRAWING NUMBER
MCE PROJ. # 07772-0009	HORIZONTAL:	
DRAWN JPM	1" = 100'	
DESIGNED JPM	VERTICAL:	
CHECKED TMM	N/A	
PROJ. MGR. TMM		A REVISION

STATUS: PRELIMINARY PLAN

NOT FOR CONSTRUCTION

BLOCK LENGTH / PERIMETER



A	ADDRESSED TRC COMMENTS	03/31/21
REV NO.	DESCRIPTIONS	DATE
	DEVIATIONS	

This electronic document is the property of
McKim & Creed, Inc.
and is not to be used for any purpose without the written consent of the engineer whose seal appears on the original certified document.

**DO NOT REMOVE FROM
ELECTRONIC FILE**



PRELIMINARY PLAT
ENLARGED SITE PLAN

DATE:	JANUARY 2021
MCE PROJ. #	07772-0009
DRAWN	JPM
DESIGNED	JPM
CHECKED	TMM
PROJ. MGR.	TMM

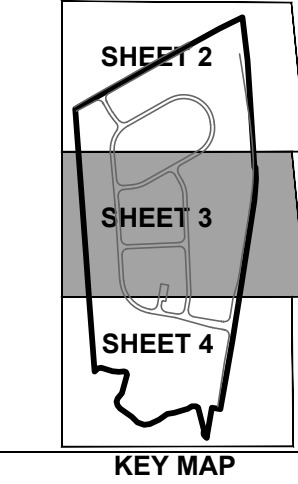
SCALE

HORIZONTAL:
1" = 50'

VERTICAL:
N/A

2
2 of 6
WING NUMBER
A

STATUS: **PRELIMINARY PLAN
NOT FOR CONSTRUCTION**



GENERAL NOTES:

1. APPLICANT AGREES TO OBTAIN ANY AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR DEVELOPMENT BEFORE ANY DEVELOPMENT ACTIVITY CAN TAKE PLACE.
2. APPLICANT AGREES THE COMMUNITY WILL BE AGE-RESTRICTED AND REQUIRE 90% OF THE HOME OWNERS WILL BE 55 OR OLDER, THROUGH DEED RESTRICTIONS.
3. APPLICANT AGREES TO RESTRICT EXTERIOR CLADDING MATERIALS TO NON-VINYL PRODUCTS.
4. APPLICANT AGREES TO CONSTRUCT A TEN (10) FOOT WIDE PAVED GREENWAY TRAIL CONNECTION AND DEDICATE A TWENTY-FIVE (25) FOOT WIDE EASEMENT TO PROVIDE ACCESS TO THE GREENWAY CONNECTION FROM THE PROPOSED DEVELOPMENT, TO ROBINSON CHURCH ROAD, AND TO THE ADJOINING FENTON DELL COMMUNITY (INCLUDING CONSTRUCTING THE PAVED TRAIL TO TOTENHAM DRIVE).
5. APPLICANT AGREES TO INSTALL A PEDESTRIAN CROSSWALK AND SIGNAL ON THE GREENWAY CROSSING AT ROBINSON CHURCH ROAD.
6. APPLICANT AGREES TO WORK COLLABORATIVELY WITH THE TOWN STAFF AND THE NC DEPARTMENT OF TRANSPORTATION IN IDENTIFYING AND PARTICIPATING IN THE DEVELOPMENT OF RIGHT-OF-WAY IMPROVEMENTS ON PERIMETER ROADS, INCLUDING LEFT AND RIGHT TURN LANES AT SITE ENTRANCES, RE-ALIGNMENT OF TOM QUERRY ROAD AT ITS INTERSECTION WITH ROBINSON CHURCH ROAD, AND A STREET LIGHTING PLAN.
7. APPLICANT AGREES TO IDENTIFY ANY POTENTIAL TREE SAVE AREAS (INCLUDING HERITAGE TREES) ON THE SITE THAT MIGHT BE ABLE TO BE RETAINED POST-DEVELOPMENT.
8. APPLICANT AGREES THAT ALL STORMWATER CONTROL MEASURES SHALL BE WET PONDS WITH FOUNTAIN(S), WITH MINIMUM DEPTH OF 10 FEET OVER 25% OF THE PERMANENT POOL AREA.

BLOCK	LOTS	LENGTH / PERIMETER
A	1 - 17	939'
B	17 - 22	398'
C	23 - 28	347'
D	29 - 36	447'
E	37 - 42	305'
F	42 - 47	321'
G	48 - 60	1,394'
H	61 - 70	1,148'
J	71 - 77	1,100'

BLOCK LENGTH / PERIMETER



DATE:	JANUARY 2021
MCE PROJ. #	07772-0009
DRAWN	JPM
DESIGNED	JPM
CHECKED	TMM
PROJ. MGR.	TMM

SCALE	3
HORIZONTAL:	1" = 50'
VERTICAL:	N/A

3
3 of 6
DRAWING NUMBER
A
REVISION

STATUS: PRELIMINARY PLAN
NOT FOR CONSTRUCTION

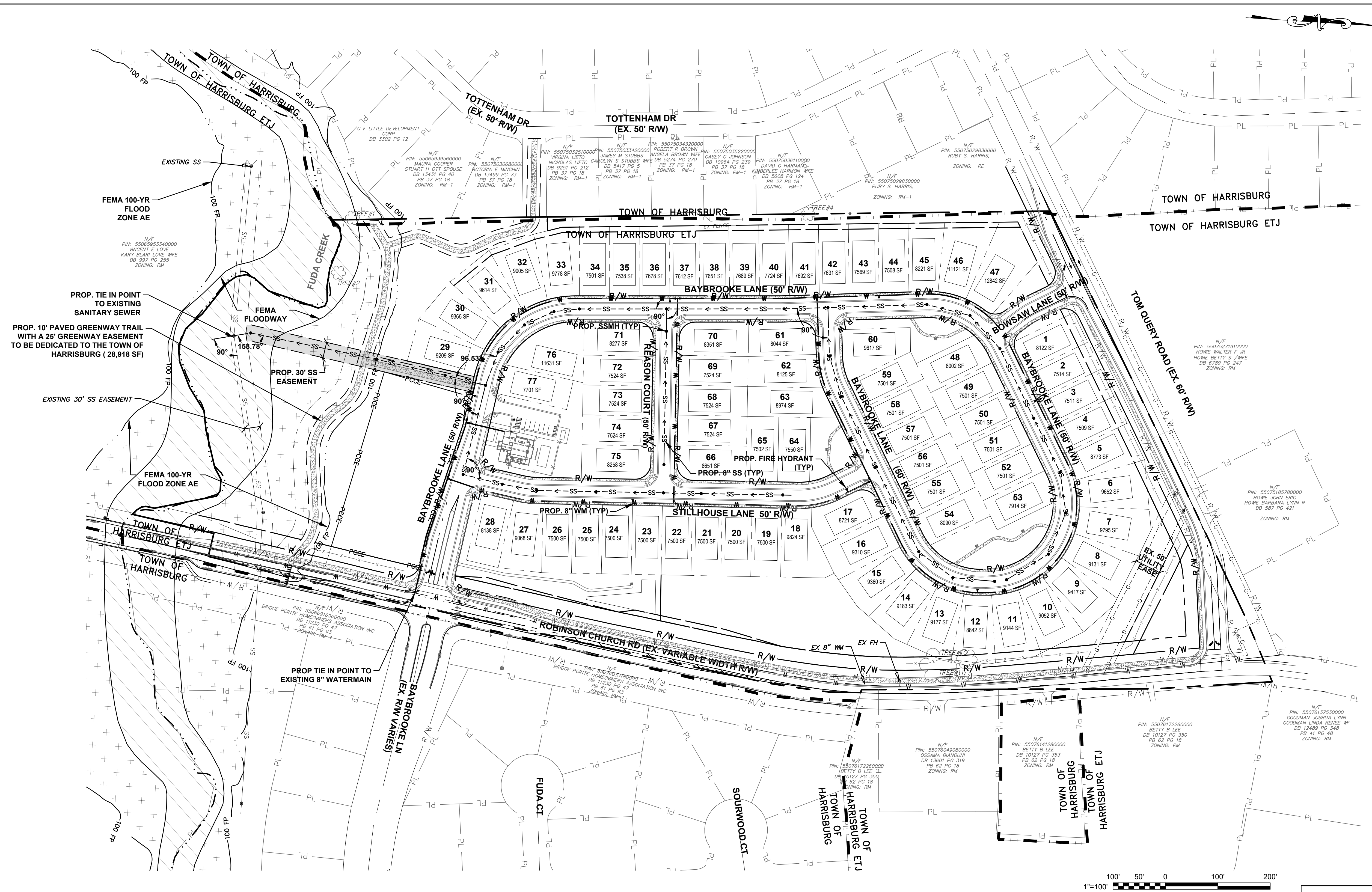
REV.	DESCRIPTION	DATE
1	ADDRESSED TRC COMMENTS	03/01/21
2	ADDRESSED TRC COMMENTS	03/01/21
3	ADDRESSED TRC COMMENTS	03/01/21
4	ADDRESSED TRC COMMENTS	03/01/21
5	ADDRESSED TRC COMMENTS	03/01/21
6	ADDRESSED TRC COMMENTS	03/01/21
7	ADDRESSED TRC COMMENTS	03/01/21
8	ADDRESSED TRC COMMENTS	03/01/21
9	ADDRESSED TRC COMMENTS	03/01/21
10	ADDRESSED TRC COMMENTS	03/01/21
11	ADDRESSED TRC COMMENTS	03/01/21
12	ADDRESSED TRC COMMENTS	03/01/21
13	ADDRESSED TRC COMMENTS	03/01/21
14	ADDRESSED TRC COMMENTS	03/01/21
15	ADDRESSED TRC COMMENTS	03/01/21
16	ADDRESSED TRC COMMENTS	03/01/21
17	ADDRESSED TRC COMMENTS	03/01/21
18	ADDRESSED TRC COMMENTS	03/01/21
19	ADDRESSED TRC COMMENTS	03/01/21
20	ADDRESSED TRC COMMENTS	03/01/21
21	ADDRESSED TRC COMMENTS	03/01/21
22	ADDRESSED TRC COMMENTS	03/01/21
23	ADDRESSED TRC COMMENTS	03/01/21
24	ADDRESSED TRC COMMENTS	03/01/21
25	ADDRESSED TRC COMMENTS	03/01/21
26	ADDRESSED TRC COMMENTS	03/01/21
27	ADDRESSED TRC COMMENTS	03/01/21
28	ADDRESSED TRC COMMENTS	03/01/21
29	ADDRESSED TRC COMMENTS	03/01/21
30	ADDRESSED TRC COMMENTS	03/01/21
31	ADDRESSED TRC COMMENTS	03/01/21
32	ADDRESSED TRC COMMENTS	03/01/21
33	ADDRESSED TRC COMMENTS	03/01/21
34	ADDRESSED TRC COMMENTS	03/01/21
35	ADDRESSED TRC COMMENTS	03/01/21
36	ADDRESSED TRC COMMENTS	03/01/21
37	ADDRESSED TRC COMMENTS	03/01/21
38	ADDRESSED TRC COMMENTS	03/01/21
39	ADDRESSED TRC COMMENTS	03/01/21
40	ADDRESSED TRC COMMENTS	03/01/21
41	ADDRESSED TRC COMMENTS	03/01/21
42	ADDRESSED TRC COMMENTS	03/01/21
43	ADDRESSED TRC COMMENTS	03/01/21
44	ADDRESSED TRC COMMENTS	03/01/21
45	ADDRESSED TRC COMMENTS	03/01/21
46	ADDRESSED TRC COMMENTS	03/01/21
47	ADDRESSED TRC COMMENTS	03/01/21
48	ADDRESSED TRC COMMENTS	03/01/21
49	ADDRESSED TRC COMMENTS	03/01/21
50	ADDRESSED TRC COMMENTS	03/01/21
51	ADDRESSED TRC COMMENTS	03/01/21
52	ADDRESSED TRC COMMENTS	03/01/21
53	ADDRESSED TRC COMMENTS	03/01/21
54	ADDRESSED TRC COMMENTS	03/01/21
55	ADDRESSED TRC COMMENTS	03/01/21
56	ADDRESSED TRC COMMENTS	03/01/21
57	ADDRESSED TRC COMMENTS	03/01/21
58	ADDRESSED TRC COMMENTS	03/01/21
59	ADDRESSED TRC COMMENTS	03/01/21
60	ADDRESSED TRC COMMENTS	03/01/21
61	ADDRESSED TRC COMMENTS	03/01/21
62	ADDRESSED TRC COMMENTS	03/01/21
63	ADDRESSED TRC COMMENTS	03/01/21
64	ADDRESSED TRC COMMENTS	03/01/21
65	ADDRESSED TRC COMMENTS	03/01/21
66	ADDRESSED TRC COMMENTS	03/01/21
67	ADDRESSED TRC COMMENTS	03/01/21
68	ADDRESSED TRC COMMENTS	03/01/21
69	ADDRESSED TRC COMMENTS	03/01/21
70	ADDRESSED TRC COMMENTS	03/01/21
71	ADDRESSED TRC COMMENTS	03/01/21
72	ADDRESSED TRC COMMENTS	03/01/21
73	ADDRESSED TRC COMMENTS	03/01/21
74	ADDRESSED TRC COMMENTS	03/01/21
75	ADDRESSED TRC COMMENTS	03/01/21
76	ADDRESSED TRC COMMENTS	03/01/21
77	ADDRESSED TRC COMMENTS	03/01/21
78	ADDRESSED TRC COMMENTS	03/01/21
79	ADDRESSED TRC COMMENTS	03/01/21
80	ADDRESSED TRC COMMENTS	03/01/21
81	ADDRESSED TRC COMMENTS	03/01/21
82	ADDRESSED TRC COMMENTS	03/01/21
83	ADDRESSED TRC COMMENTS	03/01/21
84	ADDRESSED TRC COMMENTS	03/01/21
85	ADDRESSED TRC COMMENTS	03/01/21
86	ADDRESSED TRC COMMENTS	03/01/21
87	ADDRESSED TRC COMMENTS	03/01/21
88	ADDRESSED TRC COMMENTS	03/01/21
89	ADDRESSED TRC COMMENTS	03/01/21
90	ADDRESSED TRC COMMENTS	03/01/21
91	ADDRESSED TRC COMMENTS	03/01/21
92	ADDRESSED TRC COMMENTS	03/01/21
93	ADDRESSED TRC COMMENTS	03/01/21
94	ADDRESSED TRC COMMENTS	03/01/21
95	ADDRESSED TRC COMMENTS	03/01/21
96	ADDRESSED TRC COMMENTS	03/01/21
97	ADDRESSED TRC COMMENTS	03/01/21
98	ADDRESSED TRC COMMENTS	03/01/21
99	ADDRESSED TRC COMMENTS	03/01/21
100	ADDRESSED TRC COMMENTS	03/01/21

This electronic document is the property of
McKim & Creed, Inc.
and is not to be used for any purpose without the written consent of the engineer whose seal appears on the original certified document.
DO NOT REMOVE FROM ELECTRONIC FILE

McKIM & CREED
8020 Tower Point Drive
Charlotte, North Carolina 28227
Phone: (704) 841-2588, Fax: (704) 841-2567
NC License# F-1222
www.mckimcreed.com

EPCON
Communities

THE COURTYARDS ON ROBINSON CHURCH
TOWN OF HARRISBURG, NC
ROBINSON CHURCH ROAD
PRELIMINARY PLAT ENLARGED SITE PLAN



SUMMARY OF WATER MAINS & FIRE HYDRANTS				SUMMARY OF SEWER MAINS & MANHOLES			
SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH
8"	4,052 LF			8"	3,861 LF		
TOTAL NO. OF FIRE HYDRANTS: 7				TOTAL NO. OF MANHOLES: 30			
TOTAL NO. LOTS SERVED: 77				TOTAL NO. LOTS SERVED: 77			
PROJECT NAME: THE COURTYARDS ON ROBINSON CHURCH				PROJECT NAME: THE COURTYARDS ON ROBINSON CHURCH			
-				-			
SCALE: 1" = 100'				SCALE: 1" = 100'			
JOB NO:				JOB NO:			
DATE OF ACTIVATION:				DATE OF ACTIVATION:			
DATE AS BUILT:		BY:		DATE AS BUILT:		BY:	

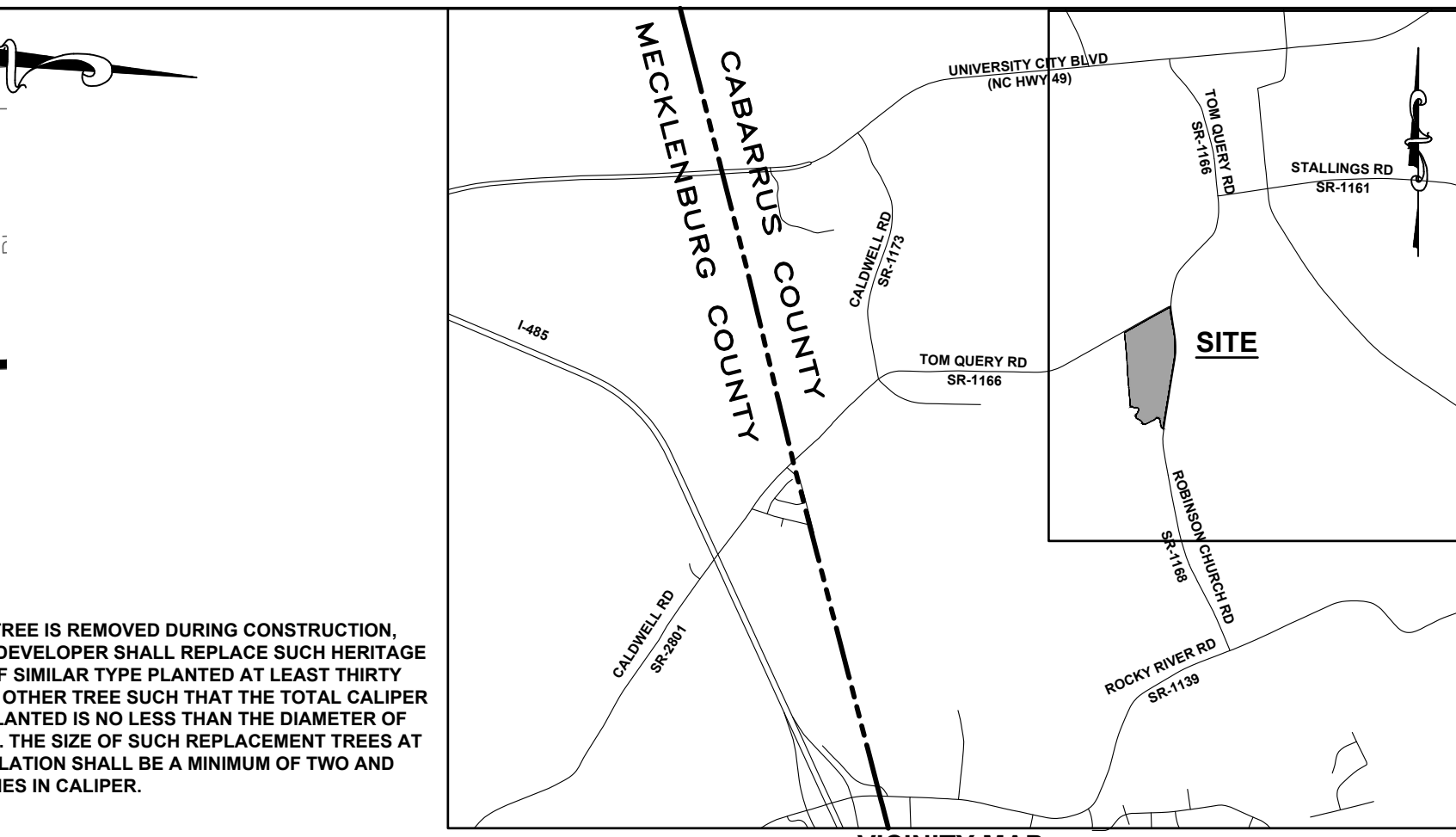
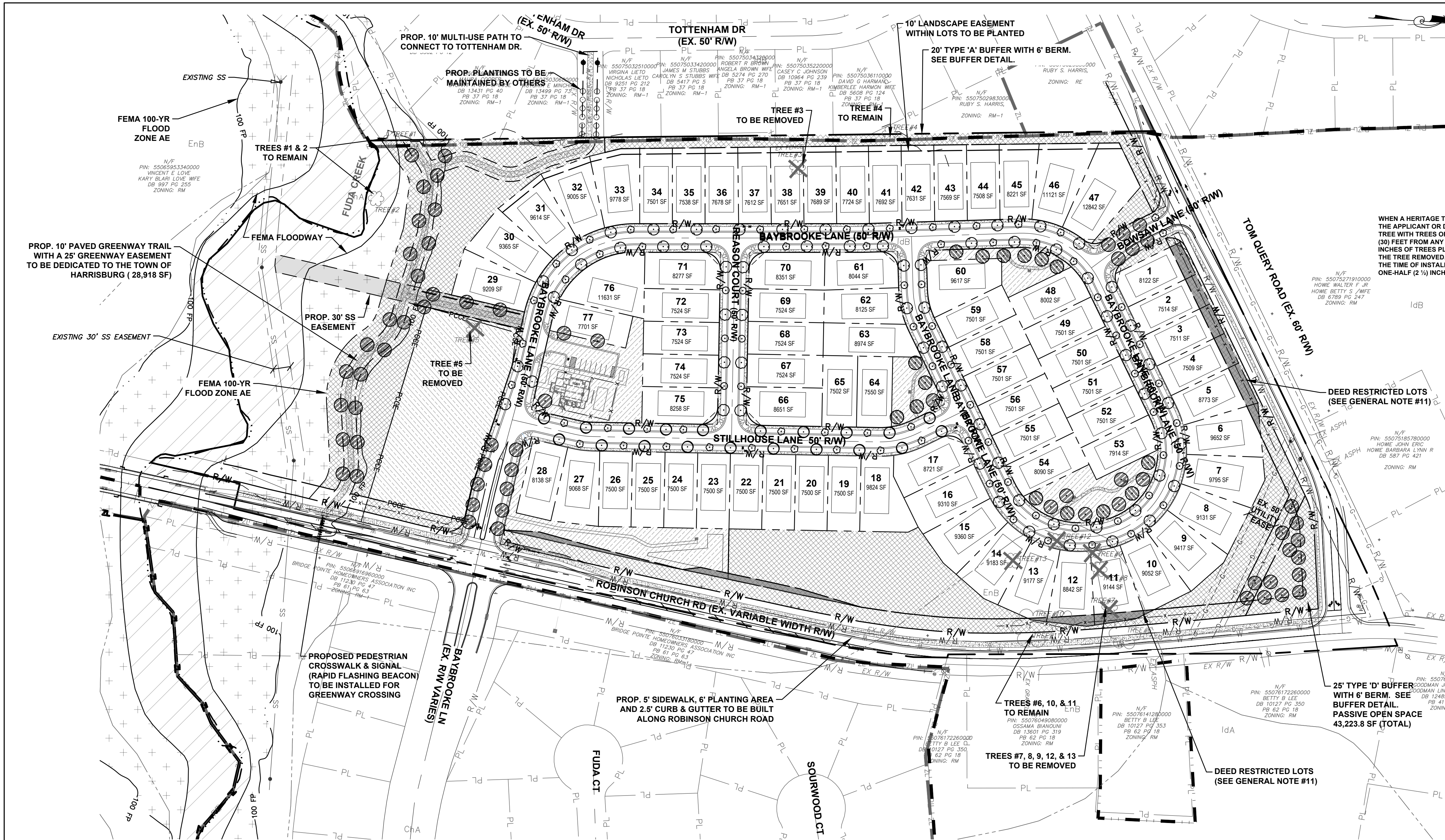
SCALE HORIZONTAL: 1"=100' VERTICAL: N/A	5 5 of 6 DRAWING NUMBER A DESIGN
---	---

A	ADDRESSED TRC COMMENTS	09/31/21
REV.NO.	DESCRIPTIONS REVISIONS	DATE



McKIM & CREED
 8020 Tower Point Drive
 Charlotte, North Carolina 28227
 Phone: (704) 841-2588, Fax: (704) 841-2567
 NC License# F-1222
www.mckimcreed.com

THE COURTYARDS ON ROBINSON CHURCH
TOWN OF HARRISBURG, NC
ROBINSON CHURCH ROAD



EXISTING HERITAGE TREES & MITIGATION TREES					
TREE #	DBH	TREE SPECIES	TO BE REMOVED (TBR) OR TO REMAIN	MITIGATION TREES PROPOSED*	TOTAL PROP. CAL. IN.
01	31"	MAPLE	TO REMAIN		
02	34"	SWEET GUM	TO REMAIN		
03	34"	MAPLE	TBR	(10) 3" + (2) 3" RED MAPLES	36"
04	37"	OAK	TO REMAIN		
05	30"	MAPLE	TBR	(10) 3" RED MAPLES	30"
06	30"	OAK	TO REMAIN		
07	45"	OAK	TBR	(15) 3" OAKS	45"
08	30"	MAPLE	TBR	(10) 3" RED MAPLES	30"
09	30"	MAPLE	TBR	(10) 3" RED MAPLES	30"
10	36"	OAK	TO REMAIN		
11	45"	MAPLE	TO REMAIN		
12	31"	MAPLE	TBR	(9) 3" + (2) 3" RED MAPLES	33"
13	32"	MAPLE	TBR	(10) 3" + (1) 3" RED MAPLES	33"

* TREES PROPOSED FOR MITIGATION TO BE PLANTED AT ENTRIES AND IN COMMON OPEN SPACE AREAS.

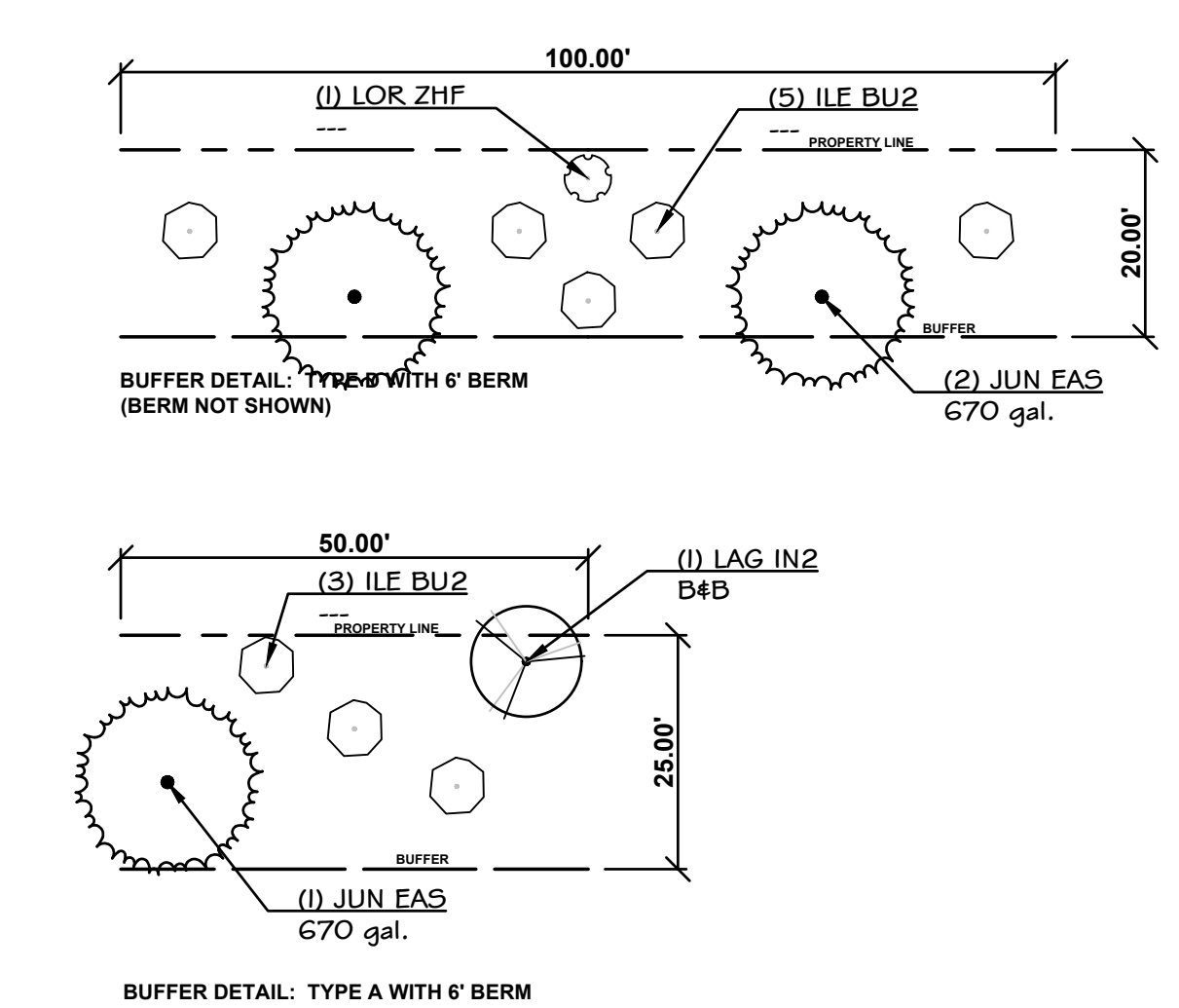
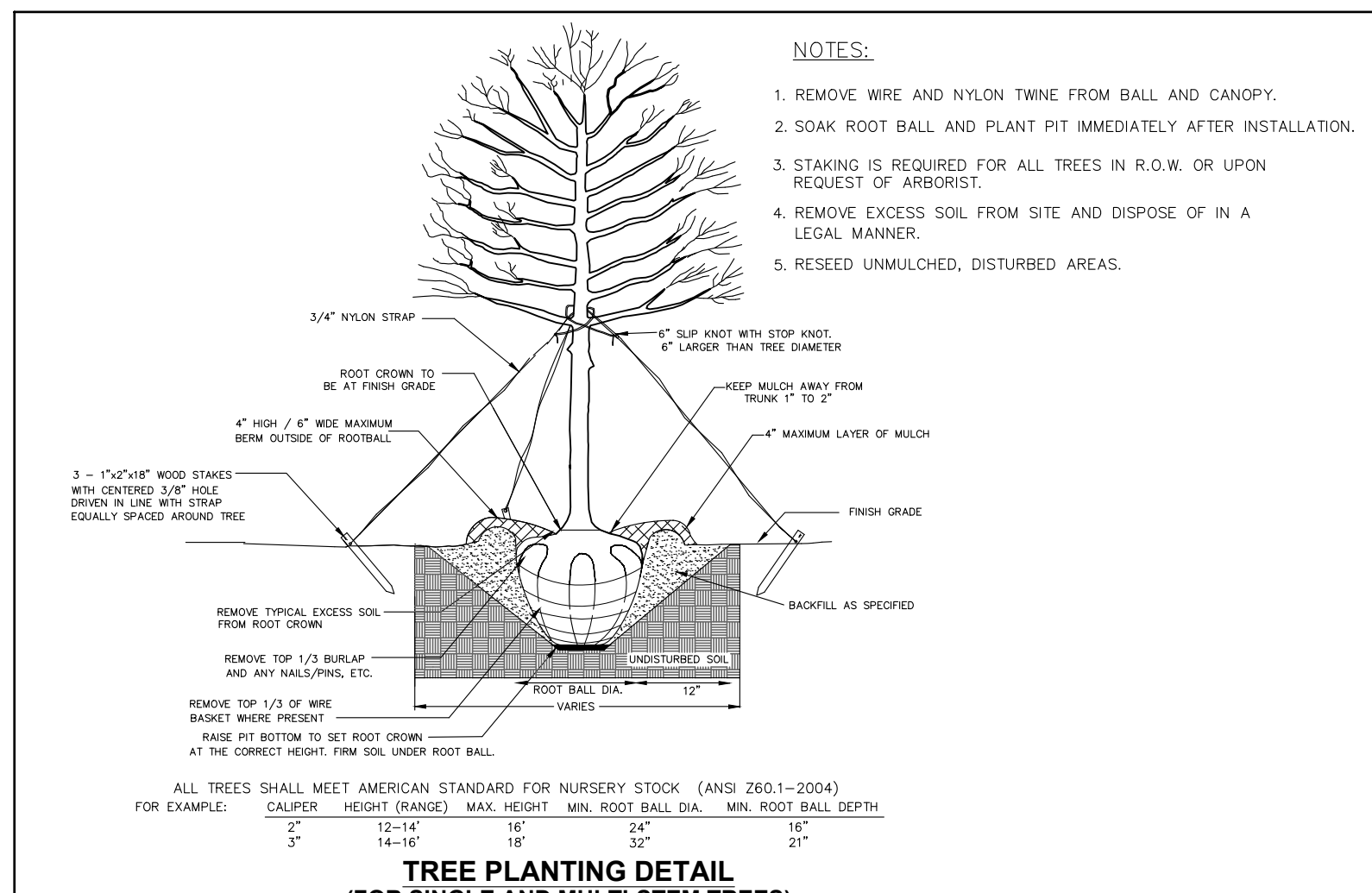
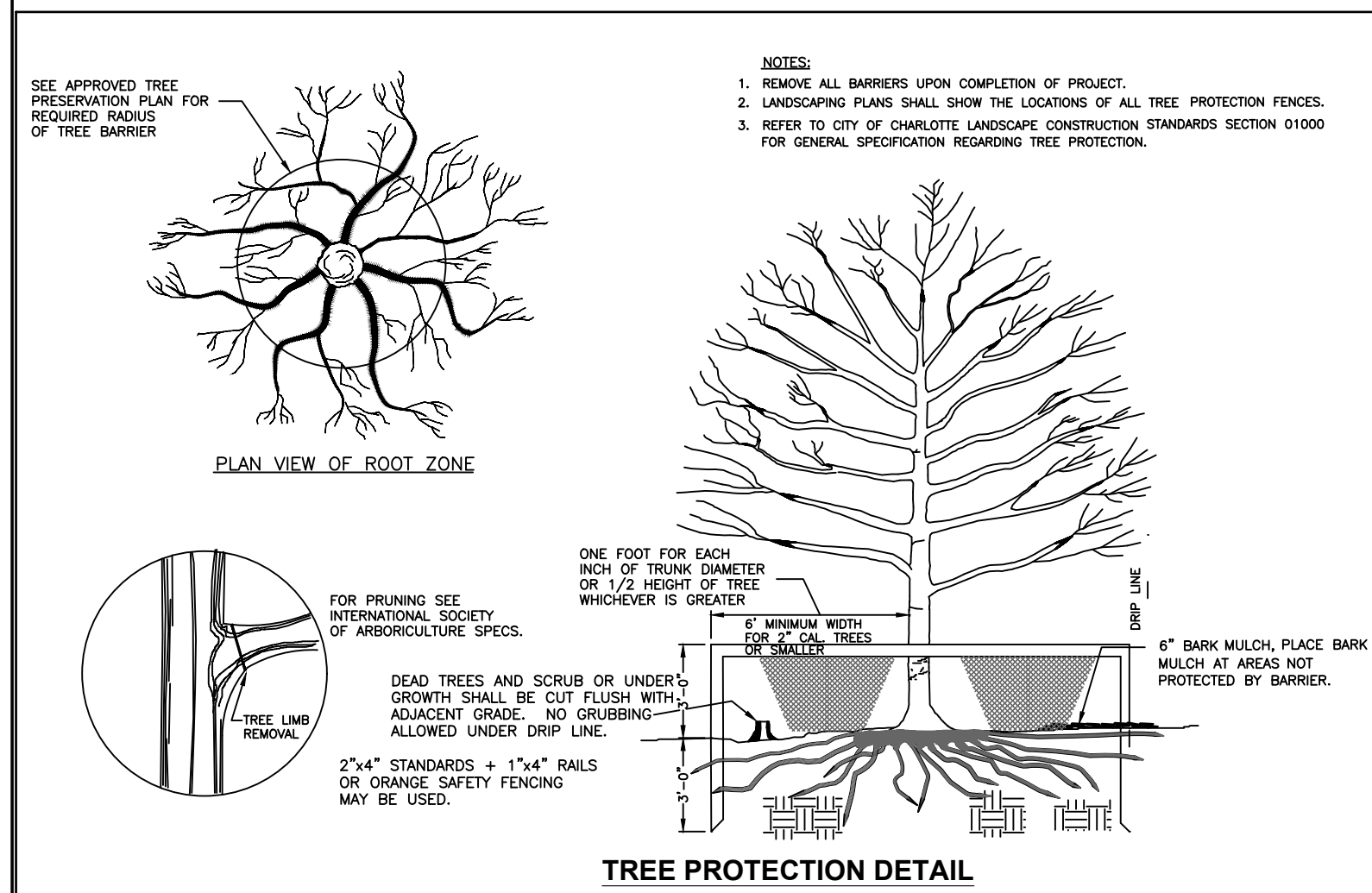
PLANTING NOTES:
1. ALL LANDSCAPING PER THE TOWN OF HARRISBURG UDO ARTICLE 7.

AMENITY LANDSCAPING (PLANS TO BE PROVIDED IN SEPARATE SUBMITTAL)

BUILDING YARD: .5 POINTS/LF		60 LF (.5) = 30 POINTS REQ.	
REQUIRED:		1 ORN. TREE / 30 LF	
		8 SM/MED SHRUBS / 30 LF	
PROVIDED:		2 ORN. TREES (6 PTS.) =	12 POINTS
		4 MED (2 PTS.) =	8 POINTS
		12 SM (1 PT.) =	12 POINTS
			32 POINTS

STREET TREE CALCULATIONS	
PROPOSED ZONING:	CZ-RV
STREET YARDS:	CLASS 2
REQUIRED PLANTING AREA:	8' WIDE
REQUIRED SHADE TREES:	1 per 75 LF
REQUIRED ORNAMENTAL TREES:	1 per 100 LF
REQUIRED POINTS/LF:	.2

OPEN SPACE HATCH KEY	
	PASSIVE OPEN SPACE
	ACTIVE OPEN SPACE



ROAD NAME	LENGTH (LF)	SHADE TREES REQ'D*	SHADE TREES PROVIDED*	ORNAMENTAL TREES REQ'D*	ORNAMENTAL TREES PROVIDED*	POINTS REQ. / PROVIDED* (RATIO)
BOWSAW LANE	146.5	2	3	1	1	29.3 / 42 (.29)
BAYBROOKE LANE	2,694	36	36	27	28	539 / 628 (.23)
STILLHOUSE LANE	749	10	10	7	8	150 / 168 (.22)
REASON COURT	301	4	4	3	3	60 / 66 (.22)

PLANT SCHEDULE: STREET & MITIGATION TREES											
SYMBOL	CODE	COMMON NAME	SCIENTIFIC NAME	CONTAINER	SIZE	HEIGHT	SPACING	SYMBOL	CODE	COMMON NAME	SCIENTIFIC NAME
	ACE HBR	ACER RUBRUM	RED MAPLE	BBB	3" CAL	30' OC			QUE ACS	QUERCUS ACUTICERNA	SAWTOOTH OAK
	QUE ACS	QUERCUS ACUTICERNA	SAWTOOTH OAK	BBB	3" CAL	30' OC			CER CAN	CERCIS CANADENSIS	EASTERN REDBUD
	LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE	BBB	1.5" CAL	6'-8'	AS SHOWN		LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE
	LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE	BBB	1.5" CAL	6'-8'	AS SHOWN		LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE
	LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE	BBB	1.5" CAL	6'-8'	AS SHOWN		LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE
	LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE	BBB	1.5" CAL	6'-8'	AS SHOWN		LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE
	LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE	BBB	1.5" CAL	6'-8'	AS SHOWN		LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE
	LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE	BBB	1.5" CAL	6'-8'	AS SHOWN		LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE
	LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE	BBB	1.5" CAL	6'-8'	AS SHOWN		LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE
	LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE	BBB	1.5" CAL	6'-8'	AS SHOWN		LAG RD	LAGERSTROMIA INDICA	GRAPE HYDRATE

REV.	DESCRIPTION	DATE
1	ADDRESSED TRC COMMENTS	03/1/21
2	ADDRESSED TRC COMMENTS	03/1/21
3	ADDRESSED TRC COMMENTS	03/1/21
4	ADDRESSED TRC COMMENTS	03/1/21
5	ADDRESSED TRC COMMENTS	03/1/21
6	ADDRESSED TRC COMMENTS	03/1/21
7	ADDRESSED TRC COMMENTS	03/1/21
8	ADDRESSED TRC COMMENTS	03/1/21
9	ADDRESSED TRC COMMENTS	03/1/21
10	ADDRESSED TRC COMMENTS	03/1/21
11	ADDRESSED TRC COMMENTS	03/1/21
12	ADDRESSED TRC COMMENTS	03/1/21
13	ADDRESSED TRC COMMENTS	03/1/21
14	ADDRESSED TRC COMMENTS	03/1/21
15	ADDRESSED TRC COMMENTS	03/1/21
16	ADDRESSED TRC COMMENTS	03/1/21
17	ADDRESSED TRC COMMENTS	03/1/21
18	ADDRESSED TRC COMMENTS	03/1/21
19	ADDRESSED TRC COMMENTS	03/1/21
20	ADDRESSED TRC COMMENTS	03/1/21
21	ADDRESSED TRC COMMENTS	03/1/21
22	ADDRESSED TRC COMMENTS	03/1/21
23	ADDRESSED TRC COMMENTS	03/1/21
24	ADDRESSED TRC COMMENTS	03/1/21
25	ADDRESSED TRC COMMENTS	03/1/21
26	ADDRESSED TRC COMMENTS	03/1/21
27	ADDRESSED TRC COMMENTS	03/1/21
28	ADDRESSED TRC COMMENTS	03/1/21
29	ADDRESSED TRC COMMENTS	03/1/21
30	ADDRESSED TRC COMMENTS	03/1/21
31	ADDRESSED TRC COMMENTS	03/1/21
32	ADDRESSED TRC COMMENTS	03/1/21
33	ADDRESSED TRC COMMENTS	03/1/21
34	ADDRESSED TRC COMMENTS	03/1/21
35	ADDRESSED TRC COMMENTS	03/1/21
36	ADDRESSED TRC COMMENTS	03/1/21
37	ADDRESSED TRC COMMENTS	03/1/21
38	ADDRESSED TRC COMMENTS	03/1/21
39	ADDRESSED TRC COMMENTS	03/1/21
40	ADDRESSED TRC COMMENTS	03/1/21
41	ADDRESSED TRC COMMENTS	03/1/21
42	ADDRESSED TRC COMMENTS	03/1/21
43	ADDRESSED TRC COMMENTS	03/1/21
44	ADDRESSED TRC COMMENTS	03/1/21
45	ADDRESSED TRC COMMENTS	03/1/21
46	ADDRESSED TRC COMMENTS	03/1/21
47	ADDRESSED TRC COMMENTS	03/1/21
48	ADDRESSED TRC COMMENTS	03/1/21
49	ADDRESSED TRC COMMENTS	03/1/21
50	ADDRESSED TRC COMMENTS	03/1/21
51	ADDRESSED TRC COMMENTS	03/1/21
52	ADDRESSED TRC COMMENTS	03/1/21
53	ADDRESSED TRC COMMENTS	03/1/21
54	ADDRESSED TRC COMMENTS	03/1/21
55	ADDRESSED TRC COMMENTS	03/1/21
56	ADDRESSED TRC COMMENTS	03/1/21
57	ADDRESSED TRC COMMENTS	03/1/21
58	ADDRESSED TRC COMMENTS	03/1/21
59	ADDRESSED TRC COMMENTS	03/1/21
60	ADDRESSED TRC COMMENTS	03/1/21
61	ADDRESSED TRC COMMENTS	03/1/21
62	ADDRESSED TRC COMMENTS	03/1/21
63	ADDRESSED TRC COMMENTS	03/1/21

This electronic document is the property of McKim & Creed, Inc. and is not to be used for any purpose without the written consent of the engineer whose seal appears on the original certified document. DO NOT REMOVE FROM ELECTRONIC FILE

8020 Tower Point Drive
Charlotte, North Carolina 28227
Phone: (704) 841-2588, Fax: (704) 841-2567
NC License# F-1222
www.mckimcreed.com

EPCON
Communities

THE COURTYARDS ON ROBINSON CHURCH
TOWN OF HARRISBURG, NC
ROBINSON CHURCH ROAD

OVERALL LANDSCAPE

DATE: JANUARY 2021
MCE PROJ. # 07772-0009
DRAWN: BBB
DESIGNED: BBB
CHECKED: TMM
PROJ. MGR. TMM

SCALE
HORIZONTAL: 1" = 100'
VERTICAL: N/A

6
6 of 6
DRAWING NUMBER
A
REVISION

STATUS: PRELIMINARY PLAN
NOT FOR CONSTRUCTION

Epcon Product



Epcon Product



Promenade III

© 2018 IP86, LLC

Epcon Product



Palazzo

© 2016 Epcon Communities Franchising, Inc.

Aerial View of Product – Rear Yard



BIRDS EYE VIEW – COURTYARDS & HOMES



© 2014 Epcn Communities Franchising, Inc.



CABARRUS COUNTY E911 ADDRESSING PROPOSED STREET/PROJECT NAME RESERVATION AND APPROVAL FORM

To expedite emergency response and provide for public safety, the name of a subdivision, project or any new roads shall not duplicate nor closely approximate, phonetically or by spelling, the name of an existing subdivision, project or road within the County or within any municipality within the County.

Date: 04/14/21	Parcel Identification Number(s) (PINs): 5507-50-8410			
Existing Road Providing Access to Project Area:	Robinson Church and Tom Query			
Type of Zoning District (circle one):	Residential	Commercial	Industrial	Other (briefly explain)

Developer/Owner: Epcon Communities
Primary Contact : Mike Davis
Telephone Number: (704)589-4821
Primary Contact Email address: mdavis@epconcommunities.com

PROPOSED PROJECT NAME(S):

Project Name:	The Courtyards on Robinson Church	Approved / Denied
Alternate Project Name:		Approved / Denied
Alternate Project Name:		Approved / Denied

PROPOSED STREET(S) NAME(S)- LIST IN ORDER OF PREFERENCE:

Street Name:	Continue Baybrooke Lane	Approved / Denied
Street Name:	Stillhouse Lane	Approved / Denied
Street Name:	Reason Court	Approved / Denied
Street Name:	Bowsaw Lane	Approved / Denied
Street Name:		Approved / Denied
Street Name:		Approved / Denied
Street Name:		Approved / Denied
Street Name:		Approved / Denied
Street Name:		Approved / Denied
Street Name:		Approved / Denied

NUMBER OF STREETS TO BE NAMED: 4

PLEASE EMAIL COMPLETED FORM TO: Cabarrus County E911 Addressing Services at bewebster@cabarruscounty.us.
Questions should be directed to Addressing Coordinator at 704-920-2141.

NOTE: All proposed street names and project names must be approved by Cabarrus County E-911 Addressing. Street names on preliminary and final plats must match "Approved" names exactly as submitted.

CABARRUS COUNTY E911 REVIEWER: B.Webster DATE: 4/14/21



November 10, 2020

Epcon Communities
Attn: Mike Davis
[Via email]

Mr. Davis,

This letter is to inform you that the rezoning request H2019-03-(R) was **approved** by the Town Council on Monday, November 9th, 2020 meeting.

This property is located at parcel PIN# 5507508410, located at the southwest corner of Robinson Church Road and Tom Query Road intersection. The rezoning request H2019-03-(R) was to rezone approximately 32.85 acres from RE, Rural Estate to CZ-RV, Conditional Residential Village. The rezoning was approved with the following conditions.

1. Applicant agrees to obtain any and all applicable local, state, and federal permits required for development before any development activity can take place.
2. Applicant agrees the community will be age-restricted and require 90% of the home owners will be 55 or older, through deed restrictions.
3. Applicant agrees to restrict exterior cladding materials to non-vinyl products.
4. Applicant agrees to construct a ten (10) foot wide paved greenway trail connection and dedicate a twenty-five (25) foot wide easement to provide access to the greenway connection from the proposed development, to Robinson Church Road, and to the adjoining Fenton Dell community (including constructing the paved trail to Tottenham Drive).
5. Applicant agrees to install a pedestrian crosswalk and signal (Rapid Flashing Beacon) on the greenway crossing at Robinson Church Rd.
6. Applicant agrees to work collaboratively with the Town Staff and the NC Department of Transportation in identifying and participating in the development of right-of-way improvements on perimeter roads, including left and right turn lanes at site entrances, realignment of Tom Query Road at its intersection with Robinson Church Road, and a streetlighting plan.
7. Applicant agrees to identify any potential tree save areas (including heritage trees) on the site that might be able to be retained post-development.

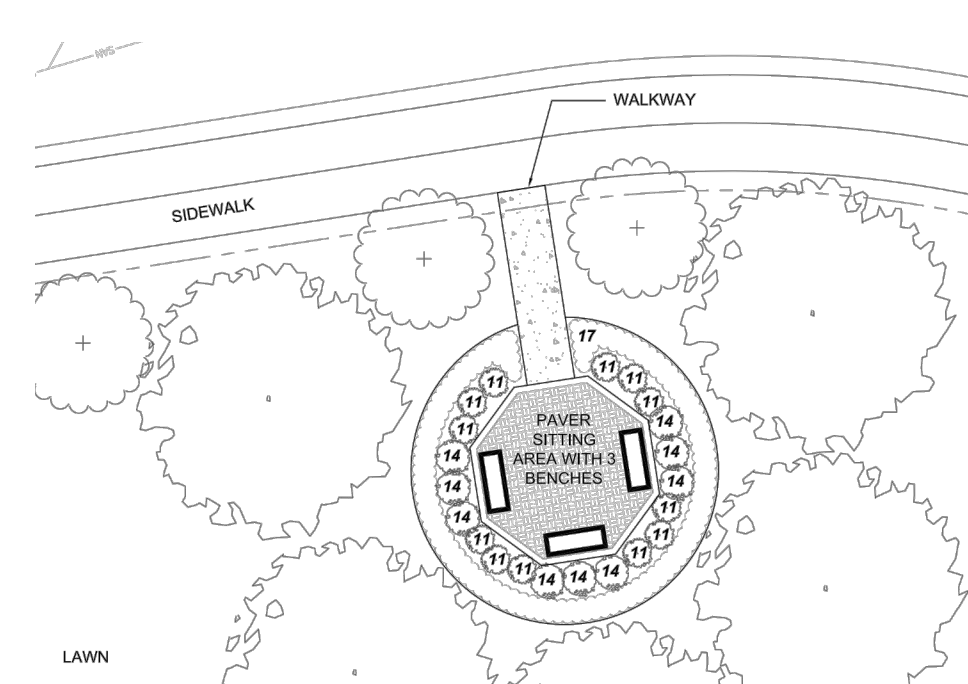
The next step is to submit Preliminary Plat for review that meets the above conditions.

If you have any questions or concerns, please let me know.

Sincerely,

Sushil Nepal

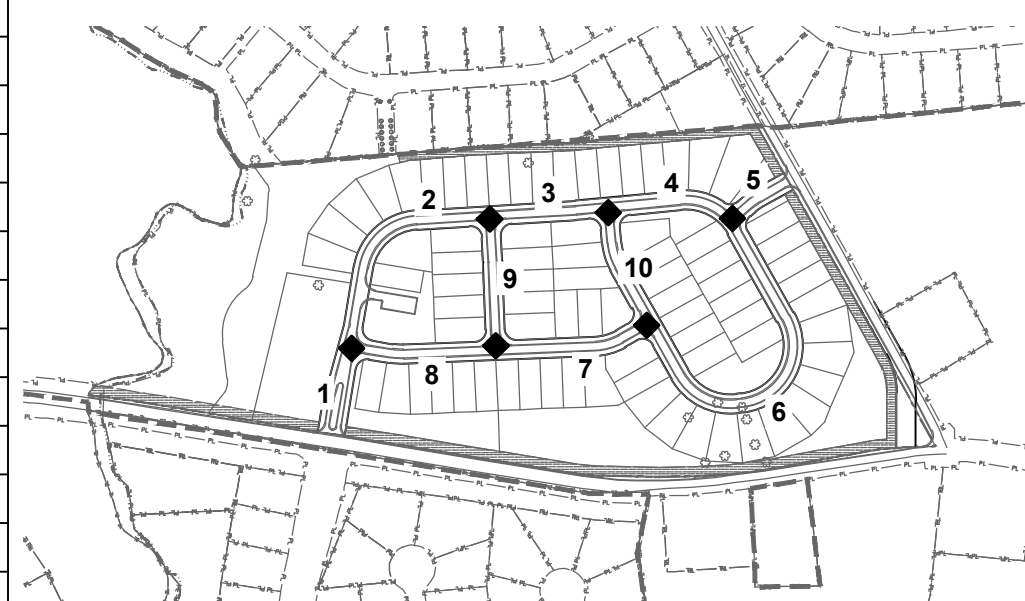
Sushil Nepal, AICP
Planning & Economic Development Director
Town of Harrisburg



CONCEPT POCKET PARK FOR ACTIVE OPEN SPACE

TREE #	DBH	TREE SPECIES	TO BE REMOVED (TBR) OR TO REMAIN
01	31"	MAPLE	TO REMAIN
02	34"	SWEET GUM	TO REMAIN
03	34"	MAPLE	TBR
04	37"	OAK	TO REMAIN
05	30"	MAPLE	TO REMAIN
06	30"	OAK	TO REMAIN
07	45"	OAK	TBR
08	30"	MAPLE	TBR
09	30"	MAPLE	TBR
10	36"	OAK	TO REMAIN
11	45"	MAPLE	TO REMAIN
12	31"	MAPLE	TBR
13	32"	MAPLE	TBR

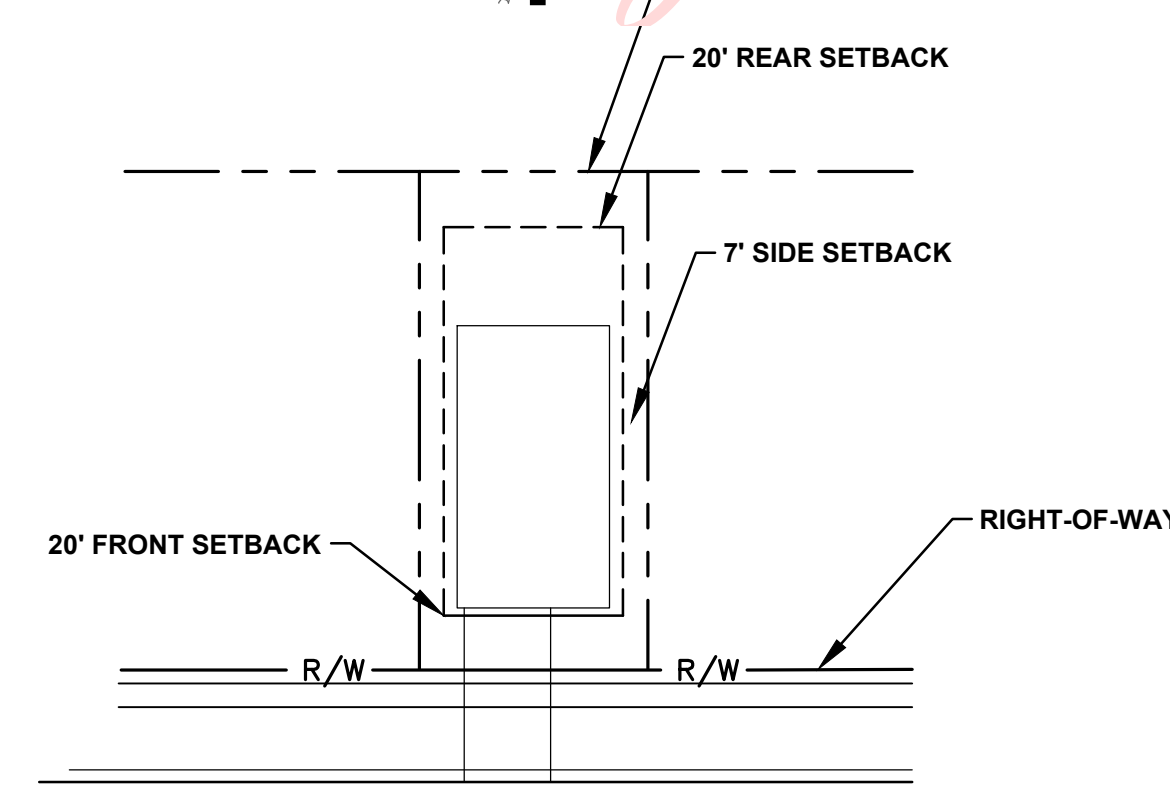
EXISTING HERITAGE TREES



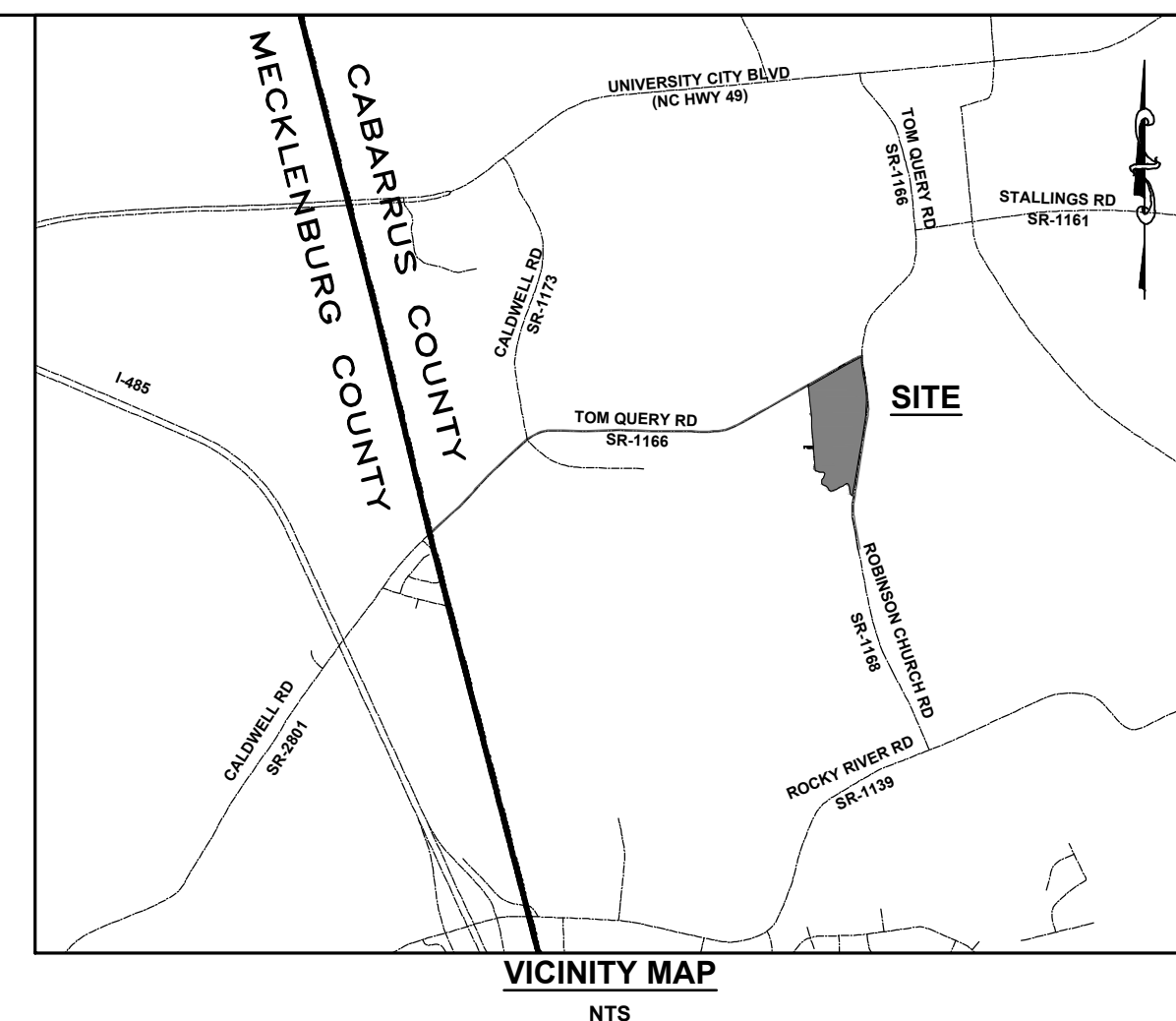
STREET CONNECTIVITY RATIO
10 LINKS / 6 NODES = 1.67 RATIO

BLOCK	LOTS	LENGTH / PERIMETER
A	1 - 17	956'
B	17 - 22	392'
C	23 - 28	347'
D	29 - 36	445'
E	37 - 42	305'
F	42 - 47	328'
G	48 - 60	1,406'
H	61 - 70	1,149'
J	71 - 77	1,105'

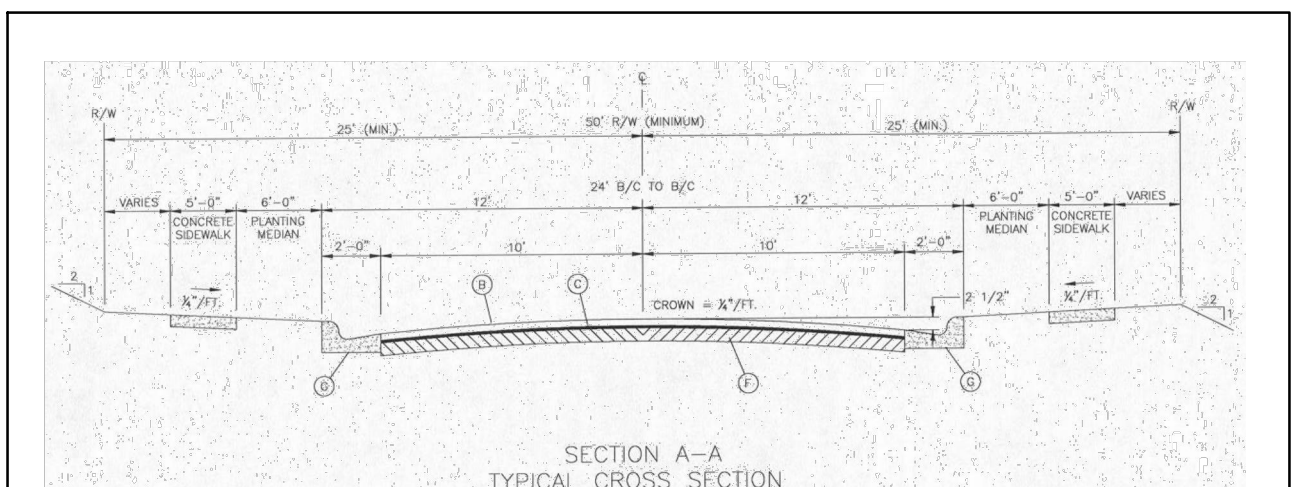
BLOCK LENGTH / PERIMETER



TYPICAL LOT



VICINITY MAP
NTS



**TYPICAL SECTION
RESIDENTIAL STREET**

SITE STATISTICS

PARCEL NUMBERS:	5507-50-9410
CURRENT ZONING:	RE
PROPOSED ZONING:	CZ-RV
TOTAL SITE AREA:	32.85 ACRES
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL
NUMBER OF LOTS:	7
DENSITY:	2.34 DU / ACRE
TOTAL LOT AREA:	640,989 SF / 14.72 AC
SMALLEST LOT SIZE:	7,500 SF
MINIMUM SETBACKS:	
-FRONT:	20'
-SIDE:	7'
-SIDE CORNER:	12.5'
-REAR:	20'
NCDDOT RIGHT-OF-WAY DEDICATION	9,891 SF / 0.22 AC
NET SITE AREA (LESS NCDDOT R/W):	32.63 AC

PUBLIC OPEN SPACE REQUIREMENTS:
PUBLIC OPEN SPACE REQUIRED: 2.20 AC. (1/35 AC. x 77 LOTS)
PUBLIC OPEN SPACE PROVIDED: 2.20 AC.

SUBDIVISION OPEN SPACE REQUIREMENTS: 3.26 AC. (10% OF NET AREA)
ACTIVE OPEN SPACE REQUIRED: 1.93 AC. (0.025 AC x 77 LOTS)
ACTIVE OPEN SPACE PROVIDED: 2.06 AC.
PASSIVE OPEN SPACE PROVIDED: 4.16 AC.

TOTAL SUBD. OPEN SPACE AREA:	6.22 AC.
PERCENTAGE OF INACCESSIBLE LAND:	0.0%

RIGHT-OF-WAY:
TOTAL RIGHT-OF-WAY AREA:
PROPOSED RIGHT-OF-WAY:

201,477 SF / 4.63 AC
ROAD 'A' 160 LF
ROAD 'B' 2701 LF
ROAD 'C' 749 LF
ROAD 'D' 300 LF

GENERAL NOTES:

1. BOUNDARY INFORMATION PROVIDED BY CABARRUS COUNTY GIS.

2. EXISTING TOPOGRAPHIC CONTOURS PROVIDED BY CABBARUS COUNTY GIS.

3. ACCESS POINTS MUST BE STAKED IN THE FIELD FOR VERIFICATION OF SIGHT DISTANCE.

4. ALL ROADS SHALL BE DESIGNED ACCORDING TO THE TOWN OF HARRISBURG STANDARDS.

5. 25' X 25' SIGHT TRIANGLE EASEMENTS SHALL BE PROVIDED AT ALL INTERSECTION INTERSECTIONS.

6. 25' X 50' SIGHT TRIANGLES SHALL BE PROVIDED AT THE ROBINSON CHURCH ENTRANCE.

7. THE SUBDIVISION WILL BE SERVED BY PUBLIC WATER AND GRAVITY SEWER SERVICE FROM THE TOWN OF HARRISBURG. ALL WATER AND SEWER EXTENSIONS REQUIRED FOR THIS PROJECT ARE THE RESPONSIBILITY OF THE DEVELOPER.

8. ADA RAMPS SHALL BE PLACED AT ALL INTERSECTIONS. ADA RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT ADA REQUIREMENTS.

9. PORTIONS OF THIS PROPERTY ARE LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA PER FEMA FIRM MAP NO. 3710505600K AND 3710550700K BOTH DATED NOV 16, 2018.

10. ALL LIGHTING PLAN WILL BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL THAT WILL COMPLY WITH THE TOWN OF HARRISBURG STREET LIGHTING REQUIREMENTS.

11. BMP TO BE LANDSCAPED WITH FOUNTAIN AND FENCED.

12. HERITAGE TREES TO BE REMOVED DURING CONSTRUCTION SHALL BE MITIGATED PURSUANT TO ARTICLE 9 OF THE U.D.O.

100' 50' 0 100' 200'

DATE:	MARCH 202
MCE PROJ. #	
DRAWN	
DESIGNED	
CHECKED	
PROJ. MGR.	

SCALE
HORIZONTAL
1"=100'
VERTICAL
NA

1

DRAWING NUMBER

STATUS: **SKETCH PLAN**
NOT FOR CONSTRUCTION

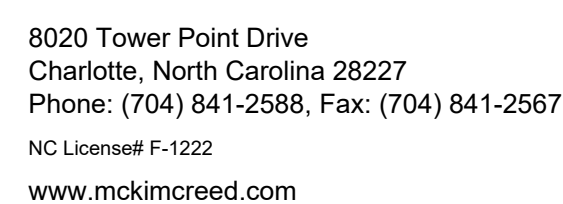
[illegible]

This electronic document is the property of

McKim & Creed, Inc.

and is not to be used for any purpose without the written consent of the engineer whose seal appears on the original certified document.

**DO NOT REMOVE FROM
ELECTRONIC FILE**



TOWN OF HARRISBURG, NC
ROBINSON CHURCH ROAD

SKETCH PLAN