

# SUBDIVISION REPORT - CONCEPT

|                                   |   |                                  |          |
|-----------------------------------|---|----------------------------------|----------|
| ► FILE #:                         | 3-SB-21-C   | AGENDA ITEM #:                   | 24       |
| POSTPONEMENT(S):                  | 3/11/2021   | AGENDA DATE:                     | 4/8/2021 |
| ► SUBDIVISION:                    | INNSBRUCK FARMS   |                                  |          |
| ► APPLICANT/DEVELOPER:            | RC RUGGLES, LLC   |                                  |          |
| OWNER(S):                         | Blaine Cristman   |                                  |          |
| <hr/>                             |   |                                  |          |
| TAX IDENTIFICATION:               | 52 02601, 026, 027, 032, 034 052NB001   | <a href="#">View map on KGIS</a> |          |
| JURISDICTION:                     | County Commission District 8  |                                  |          |
| STREET ADDRESS:                   | 0 & 908 Blake Ln. (0 Burris Rd.; 8621, 0 & 8605 N. Ruggles Ferry Pk.)   |                                  |          |
| ► LOCATION:                       | North side of Ruggles Ferry Pk., west & north of Blake Ln., east of Graves Rd.  |                                  |          |
| SECTOR PLAN:                      | East County   |                                  |          |
| GROWTH POLICY PLAN:               | Planned Growth Area   |                                  |          |
| WATERSHED:                        | Holston and French Broad  |                                  |          |
| ► APPROXIMATE ACREAGE:            | 201.06 acres  |                                  |          |
| <hr/>                             |   |                                  |          |
| ► ZONING:                         | A (Agricultural) & RA (Low Density Residential)   |                                  |          |
| ► EXISTING LAND USE:              | Agricultural/Forested/Vacant  |                                  |          |
| ► PROPOSED USE:                   | Detached residential lots   |                                  |          |
| SURROUNDING LAND USE AND ZONING:  | This area is predominantly developed with single family and rural residential uses in the A (Agricultural) and RA (Low Density Residential) zones. The Ruggle Ferry Golf Club is located on the south side of N. Ruggles Ferry Pike and is developed in the RA zone.  |                                  |          |
| <hr/>                             |   |                                  |          |
| ► NUMBER OF LOTS:                 | 482   |                                  |          |
| SURVEYOR/ENGINEER:                | Batson, Himes, Norvell & Poe  |                                  |          |
| ACCESSIBILITY:                    | Access is via N. Ruggles Ferry Pike, a major collector street with 24-FT of pavement width within 50-60-FT of right-of-way, and Blake Lane, a local street with a 13' pavement width within 50-FT of right-of-way.  |                                  |          |
| ► SUBDIVISION VARIANCES REQUIRED: | <b>VARIANCES REQUIRING PLANNING COMMISSION APPROVAL:</b><br>1) REDUCE THE VERTICAL CURVE LENGTH FROM 123-FT TO 75-FT (FROM K=25.0 TO 15.3), STA. 4+75, ROAD "A".<br>2) REDUCE THE VERTICAL CURVE LENGTH FROM 225-FT TO 135-FT (FROM K=25.0 TO 15.0), STA. 10+75, ROAD "I".<br>3) REDUCE THE VERTICAL CURVE LENGTH FROM 58.5-FT TO 45-FT (FROM K=25.0 TO 19.2), STA. 12+00, ROAD "K".<br>4) REDUCE THE VERTICAL CURVE LENGTH FROM 75-FT TO 50-FT (FROM K=25.0 TO 16.7), STA. 14+00, ROAD "K".<br><br><b>ALTERNATIVE DESIGN STANDARDS REQUIRING PLANNING COMMISSION APPROVAL:</b><br>1) REDUCE THE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 200-FT AT STA 16+10, ROAD "A" |                                  |          |

- 2) REDUCE THE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 150-FT AT STA 0+75, ROAD "C"
- 3) REDUCE THE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 240-FT AT STA 13+00, ROAD "C"
- 4) REDUCE THE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 150-FT AT STA 0+85, ROAD "G"
- 5) REDUCE THE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 145-FT AT STA 9+25, ROAD "G"
- 6) REDUCE THE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 150-FT AT STA 6+00, ROAD "I"
- 7) REDUCE THE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 200-FT AT STA 16+50, ROAD "K"

**ALTERNATIVE DESIGN STANDARDS REQUIRING KNOX COUNTY ENGINEERING AND PUBLIC WORKS APPROVAL:**

- 1) INCREASING THE MAXIMUM ROAD GRADE AT INTERSECTIONS FROM 1% TO A MAXIMUM OF 3%
- 2) REDUCE THE MINIMUM PROPERTY LINE RADIUS FROM 25-T TO 0-FT ON THE EAST SIDE OF ROAD "A" AT ITS INTERSECTION WITH N. RUGGLES FERRY PIKE

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**STAFF RECOMMENDATION:**

- **POSTPONE** the application until the June 10, 2021 Planning Commission meeting as requested by the applicant.

**COMMENTS:**

**PROPOSED DEVELOPMENT SUMMARY**

The applicant is proposing to subdivide 201.06 acres into 482 detached residential lots at a density of 2.40 du/ac, and will include approximately 5.2 miles of new streets. The subdivision will have two entrances. The Road 'A' entrance will connect directly to N. Ruggles Ferry Pike and is considered the main entrance to the subdivision. It will have a 12-foot raised median flanked by 18-foot road lanes on each side. The second subdivision entrance will be at the intersection of Blake Lane at N. Ruggles Ferry Pike. Road 'Q' in the subdivision will incorporate a portion of Blake Lane, which will be improved and widened to 20 feet back to N. Ruggles Ferry Pike (approximately 1,000 feet). Blake Lane is currently only 13 feet wide. The property does have frontage on Burris Road, however, no access is proposed to Burris Road.

There are nine common areas, with many used for stormwater facilities. Adjacent to the intersection of Road 'G' at Road 'J', the development will have a centralized area with ten parking spaces for mail delivery and pickup for residents and a small area dedicated to a dog park.

**ZONING BACKGROUND**

The property was rezoned from A (Agricultural) to RA (Low Density Residential) in January 1988 (1-L-88-RZ). The stated purpose of the rezoning was for residential development and a golf course. The subject site was rezoned at the same time as the Ruggles Ferry Golf Club property (1-M-88-RZ) on the south side of N. Ruggles Ferry Pike. The golf course and 18 house lots were subsequently approved by the Planning Commission in August 1999 (8-SA-99-C / 8-P-99-UR).

The general description of the RA (Low Density Residential) zone is that it "provides for residential areas with low population densities. These areas are intended to be defined and protected from encroachment of uses not performing a function necessary to the residential environment." The RA zone has a minimum lot size of 10,000 sqft and standard setbacks that cannot be modified by the Planning Commission. The Planning Commission can require modifications to the subdivision plan or other improvements that are in keeping with the standards in the subdivision regulations.

**SUBDIVISION REGULATIONS**

The purpose of the Concept Plan is to provide sufficient information to determine the practicality, suitability, and conformance with regulations of the proposed plan. Article 3 (General Design Standards and Required Improvements) establishes the minimum design and performance standards, including specific standards for lots, access, streets, and sinkholes, and general standards for pedestrian circulation, stormwater management,

erosion and sediment control, survey control, guarantee of improvements, utilities, easements, and open space. The specific standards are requirements and must receive a variance or alternative design standard approval to deviate from those standards. Examples include road design standards such as right-of-way widths, horizontal and vertical curves, and intersections separation. The size and shape of lots are largely regulated by the applicable zoning standards but the subdivision regulations do have lot frontage and access standards that have to be met. An example of a general standard is for public open spaces (Section 3.12) that states the Planning Commission may require dedication or reservation of usable open space within a subdivision up to a total of 10 percent of the gross area or water frontage for park, school, or recreation purposes. This provision is rarely used because this is specifically speaking to land for public use, not parks for neighborhood residents that are maintained by a homeowners association.

The subdivision regulations do require road stub-outs for future connections to adjoining undivided property. The proposed development includes a stub-out on Road 'B' to the property to the west and on Road 'R' to the property to the east.

#### TRANSPORTATION IMPACT STUDY

The Transportation Impact Study for Innsbruck Farms (AJAX Engineering, February 2021) is a level 2 study that includes a review of the primary access roads and intersections. The study focused on N. Ruggles Ferry Pike and the two intersections associated with this development (Road 'A' and Blake Lane) and the intersections at Asheville Hwy and Andrew Johnson Hwy. A summary of the study findings is attached to the staff report as Exhibit A, as well as the detailed conclusions and recommendations of the study.

The general findings of the study are that improvements to N. Ruggles Ferry Pike are not warranted at the two entrances to the subdivision (such as turn lanes), traffic signals are warranted with existing traffic volumes at the Asheville Hwy and Andrew Johnson Hwy intersections, additional turn lanes on N. Ruggles Ferry Pike at the Asheville Hwy and Andrew Johnson Hwy are warranted, and other improvements in the TDOT right-of-way to increase turn lane queuing lengths and generally improve turning movements onto the highways.

Turn signals installed on state routes are installed and maintained by the local government. There may be a cost-sharing arrangement for the installation but TDOT does not maintain traffic signals. Knox County Engineering and Public Works stated they do not want to pursue the installation of a traffic signal at the Andrew Johnson Hwy and N. Ruggles Ferry Pike intersection. The City of Knoxville determined they do want to pursue a traffic signal at the Asheville Hwy and N. Ruggles Ferry Pike intersection. The other recommended improvements to those intersections may be pursued but will require coordination between the applicable jurisdiction and TDOT.

#### UTILITY AVAILABILITY

KUB has stated that based on preliminary analysis, their water and sewer systems in this area are adequate to service this development. This will be evaluated in more detail during permitting and will be the responsibility of the developer to extend service to the site as required by KUB.

**ESTIMATED TRAFFIC IMPACT:** A traffic impact study was prepared by the applicant. The findings of that study were used in formulating the recommendations of this staff report.

**ESTIMATED STUDENT YIELD:** 160 (public school children, grades K-12)

Schools affected by this proposal: Carter Elementary, Carter Middle, and Carter High.

- Potential new school population is estimated using locally-derived data on public school student yield generated by new housing.
- Students are assigned to schools based on current attendance zones as determined by Knox County Schools. Students may request transfers to different zones, and zone boundaries are subject to change.
- Estimates presume full build-out of the proposed development. Build-out is subject to market forces, and timing varies widely from proposal to proposal.
- Student yields from new development do not reflect a net addition of children in schools. Additions occur incrementally over the build-out period. New students may replace current population that ages through the system or moves from the attendance zone.

Knoxville-Knox County Planning Commission's approval or denial of this request is final, unless the action is appealed to Knox County Chancery Court. The date of the Knox County Chancery Court appeal hearing will depend on when the appeal application is filed.





# Request to Postpone • Table • Withdraw

Name of Applicant: RC RUGGLES, LLC INNBRUCK Farms  
AS IT APPEARS ON THE CURRENT PLANNING COMMISSION AGENDA

Original File Number(s): 3-SB-21-C

Date Scheduled for Planning Review: 4/8/21

Date Request Filed: 3/30/21 Request Accepted by: Blake Chrisman

## REQUEST

☒ **Postpone**

Please postpone the above application(s) until:

June 10, 2021

DATE OF FUTURE PUBLIC MEETING

☐ **Table**

Please table the above application(s).

☐ **Withdraw**

Please withdraw the above application(s).

**State reason for request:**

**Eligible for Fee Refund?** ☐ Yes ☒ No

Amount: \_\_\_\_\_

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

## APPLICATION AUTHORIZATION

I hereby certify that I am the property owner, applicant, or applicant's authorized representative.

Signature: Blake Chrisman

PLEASE PRINT

Name: BLANE CHRISMAN

Address: P.O. BOX 520

City: Louisville State: TN Zip: 37777

Telephone: 865-603-1509

Fax: \_\_\_\_\_

E-mail: blanechrisman@yahoo.com

## PLEASE NOTE

Consistent with the guidelines set forth in Planning's Administrative Rules and Procedures:

### POSTPONEMENTS

Any first time (new) Planning application is eligible for one automatic postponement. This request is for 30 days only and does not require Planning approval if received no later than 3:30 p.m. on the Friday prior to the Planning Commission meeting. All other postponement requests must be acted upon by Planning before they can be officially postponed to a future public meeting.

### TABLINGS

Any item requested for tabling must be acted upon by the Planning Commission before it can be officially tabled.

### WITHDRAWALS

Any item is eligible for automatic withdrawal. A request for withdrawal must be received no later than 3:30p.m. on the Friday prior to the Planning Commission meeting. Withdrawal requests that do not meet these guidelines must be acted upon by Planning Commission before they can be officially withdrawn.

Any new item withdrawn may be eligible for a fee refund according to the following:

Application withdrawal with fee refund will be permitted only if a written request is received prior to public notice. This request must be approved by either the Executive Director, or the Planning Services Manager. Applications may be withdrawn after this time, but without fee refund.





# Request to Postpone • Table • Withdraw

Name of Applicant: \_\_\_\_\_

R.C. Roggles LLC

AS IT APPEARS ON THE CURRENT PLANNING COMMISSION AGENDA

Original File Number(s): \_\_\_\_\_

3-SB-21-C

Date Scheduled for Planning Review: \_\_\_\_\_

3/11/2021

Date Request Filed: \_\_\_\_\_

3/10/2021

Request Accepted by: \_\_\_\_\_

Knoxville-Knox County  
Planning

RECEIVED

MAR 10 2021

## REQUEST

☒ **Postpone**

Please postpone the above application(s) until:

April 8, 2021

DATE OF FUTURE PUBLIC MEETING

☐ **Table**

Please table the above application(s).

☐ **Withdraw**

Please withdraw the above application(s).

**State reason for request:**

-

**Eligible for Fee Refund?** ☐ Yes ☐ No

Amount: \_\_\_\_\_

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

## APPLICATION AUTHORIZATION

I hereby certify that I am the property owner, applicant, or applicant's authorized representative.

Signature: \_\_\_\_\_

David Harbin

PLEASE PRINT

Name: \_\_\_\_\_

David Harbin

Address: \_\_\_\_\_

4334 Papermill Dr.

City: \_\_\_\_\_

Knoxville

State: \_\_\_\_\_

TN

Zip: \_\_\_\_\_

37909

Telephone: \_\_\_\_\_

588-6872

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

harbin@bha-p.com

## PLEASE NOTE

Consistent with the guidelines set forth in Planning's *Administrative Rules and Procedures*:

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- 



2.22.2021

**OWNER/DEVELOPER**  
RC RUGGLES, LLC  
C/O BLANE CRISTMAN  
10730 MURDOCK DRIVE  
KNOXVILLE, TN 37932  
PHONE: (865) 603-1509

25300-SP1

Of

11 SHEET(S)

Q:\75300\25300.DWG

SITE PLAN FOR  
INNSBRUCK FARMS  
TAX MAP 52, PARCELS 26.01, 26, 27 & 34  
TAX MAP 52NB, PARCEL 1  
DISTRICT 8, KNOX COUNTY, TENNESSEE

DEED REFERENCES: DEED BK: 635, PG. 155  
DEED BK: 1198, PG. 459  
DEED BK: 1427, PG. 177  
INSTR# 20120912001678  
INSTR# 202012180049818

|                         |
|-------------------------|
| SCALE                   |
| HORIZONTAL: 1" = 100'   |
| VERTICAL: 2" = INTERVAL |
| DATE                    |
| 01/18/21                |

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**BATSON, HIMES, NORVELL & POE**  
REGISTERED ENGINEERS & LAND SURVEYORS  
4534 FAIRMILL DRIVE  
KNOXVILLE, TENNESSEE 37908  
PHONE: (865) 588-6472  
FAX: (865) 588-6473  
email@bhn-p.com





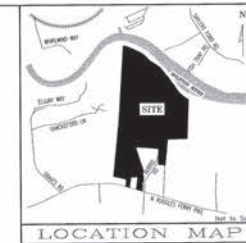
3-SB-21-C

2.22.2021

R/DEVELOPER  
RUGGLES, LLC  
BLANE CRISTMAN  
WILKINSON DRIVE  
KNOX, TN 37932  
1 (865) 603-1509

|   |  |                               |                                   |                       |                           |  |  |  |  |
|---|--|-------------------------------|-----------------------------------|-----------------------|---------------------------|--|--|--|--|
| <p><b>DATSON, HIMES, NORWELL &amp; POE</b><br/>REGISTERED ENGINEERS &amp; LAND SURVEYORS<br/>4334 PAPERBELL DRIVE<br/>KNOXVILLE, TENNESSEE 37909<br/>PHONE: (865) 588-6472<br/>FAX: (865) 588-6473<br/>enr@dhnp.com</p> | <p>DESIGNED: DBH<br/>DRAWN: EFG<br/>CHECKED: DBH</p> | <p>1 2-19-21<br/>NO. DATE</p> | <p>KKOP COMMENTS<br/>REVISION</p> | <p>APPR. NO. DATE</p> | <p>REVISION<br/>APPR.</p> | <p>SCALE<br/>HORIZONTAL: 1" = 100'<br/>VERTICAL: 2" = 100'<br/>DATE<br/>01/18/21</p> | <p>DEED REFERENCES: DEED BK: 635, PG. 155<br/>DEED BK: 1198, PG. 459<br/>DEED BK: 1427, PG. 177<br/>INSTR# 20120912001678<br/>INSTR# 202012180049818<br/>1" = 100'</p> | <p>SITE PLAN FOR<br/><b>INNSBRUCK FARMS</b><br/>TAX MAP 52, PARCELS 26.01, 26, 27 &amp; 34<br/>TAX MAP 52NB, PARCEL 1<br/>DISTRICT 8, KNOX COUNTY, TENNESSEE</p> | <p>25300-SP2<br/>SHEET 3 OF 11 SHEETS<br/>01/25/2021/25300-SP2</p> |
|---|--|-------------------------------|-----------------------------------|-----------------------|---------------------------|--|--|--|--|





3-SB-21-C

2.22.2021



OWNER/DEVELOPER  
RC RUGGLES, LLC  
C/O BLANE CRISTMAN  
10710 MURDOCK DRIVE  
KNOXVILLE, TN 37932  
PHONE: (865) 603-1509

3-SB-21-C



BATSON, HIMES, NORVELL & POE  
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email: bnp@bnp.com

DESIGNED: DSH  
DRAWN: ECG  
CHECKED: DBH

1 2-19-21

KXCP COMMENTS

REVISION

APPRO

NO. DATE

REVISION

APPRO

SCALE  
HORIZONTAL: 1"= 100'  
VERTICAL: 2" INTERVAL  
DATE  
01/18/21

DEED REFERENCES:  
DEED BK: 635, PG. 155  
DEED BK: 1198, PG. 459  
DEED BK: 1427, PG. 177  
INSTR# 20122912001678  
INSTR# 202012180049818



SITE PLAN FOR  
INNSBRUCK FARMS

TAX MAP 52, PARCELS 26.01, 26, 27 & 34  
TAX MAP 52NB, PARCEL 1  
DISTRICT 8, KNOX COUNTY, TENNESSEE

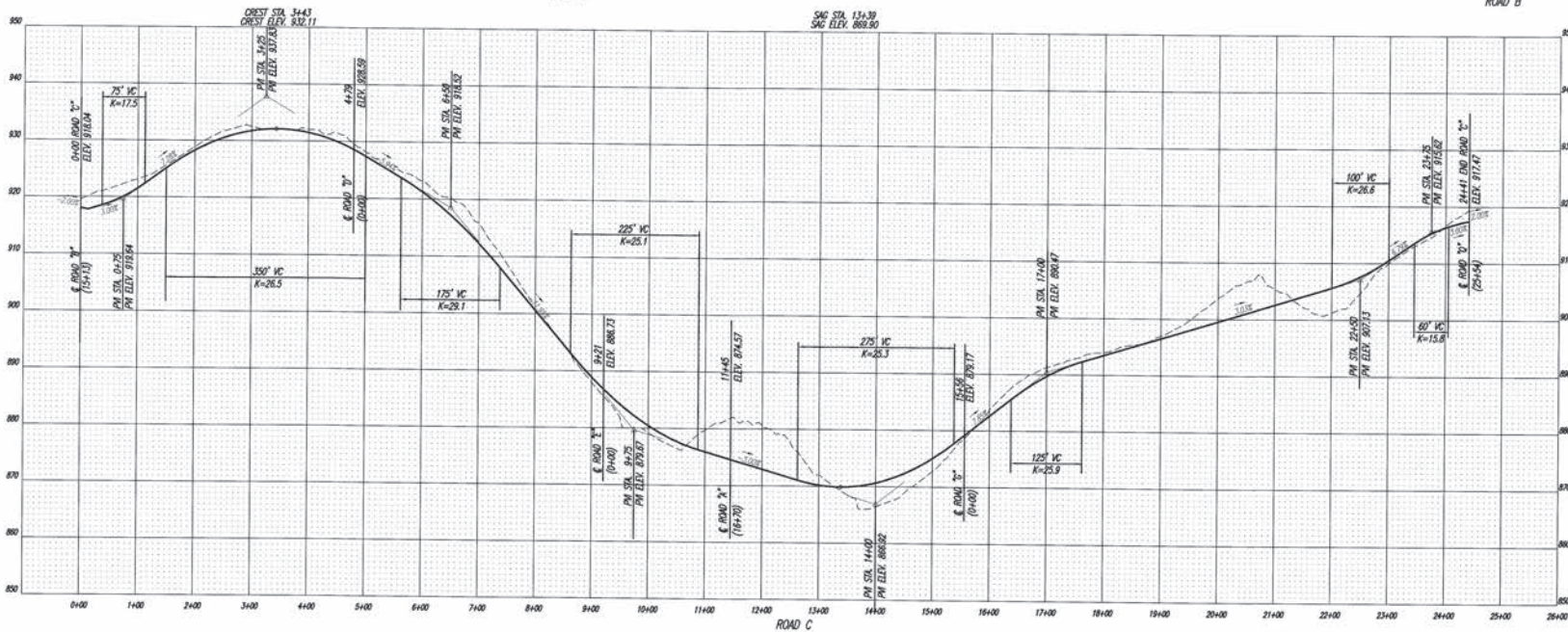
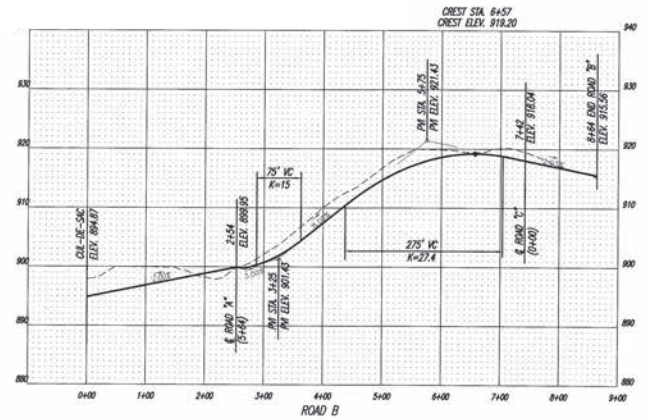
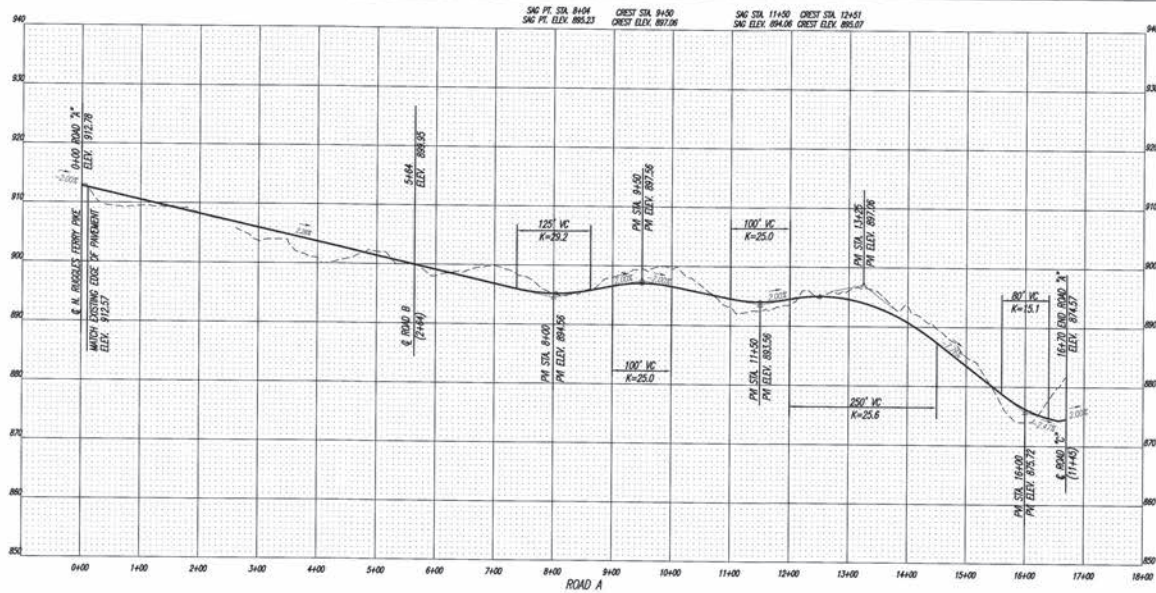
25300-SP3

SHEET 4 OF 11 SHEET(S)  
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3-SB-21-C

2.22.2021



OWNER/DEVELOPER  
RC RUGGLES, LLC  
C/O BLANE CRISTMAN  
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KNOXVILLE, TN 37932  
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email: rhp@rhp-np.com

DESIGNED: DBH  
DRAWN: ECG  
CHECKED: DBH

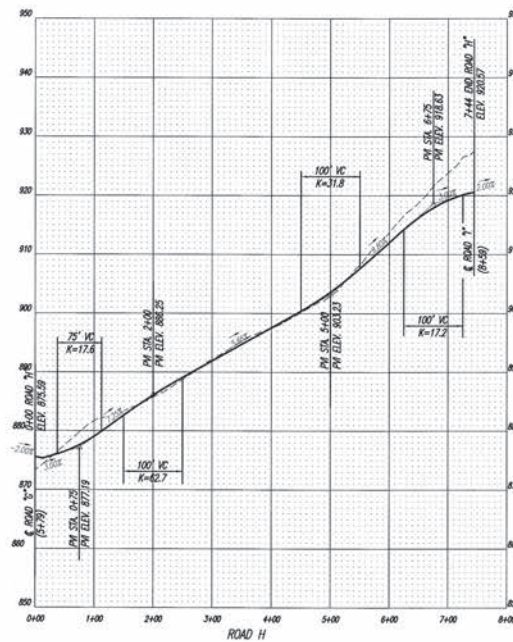
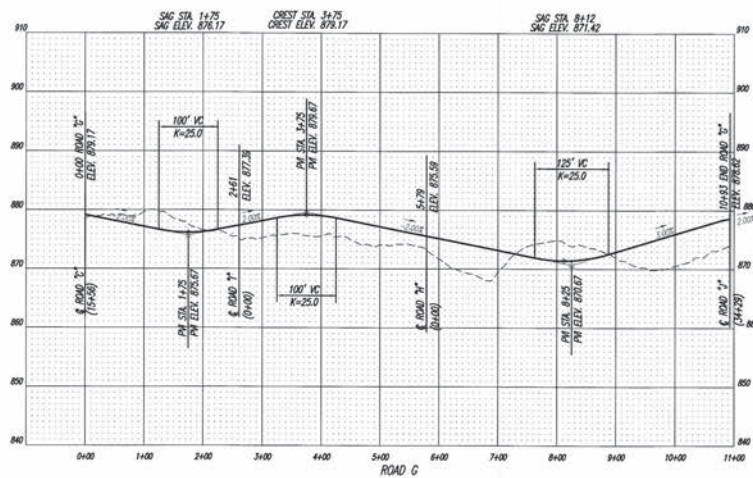
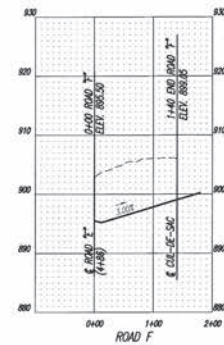
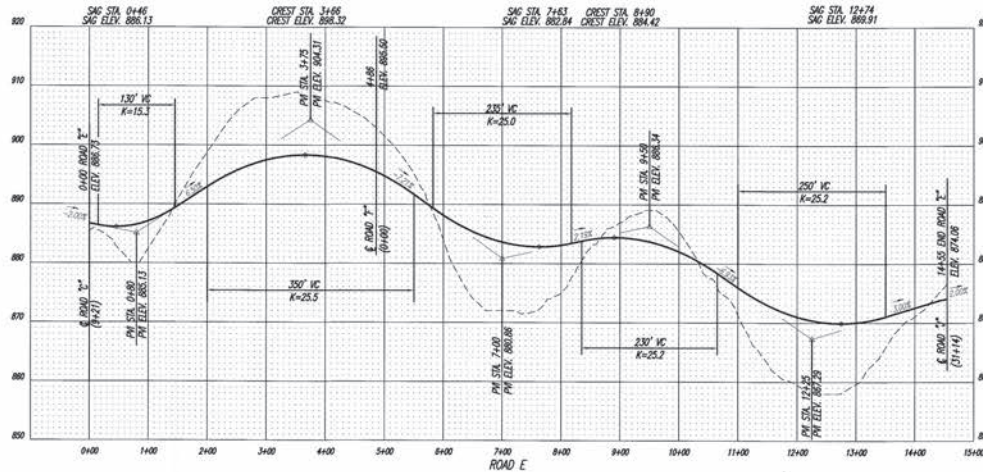
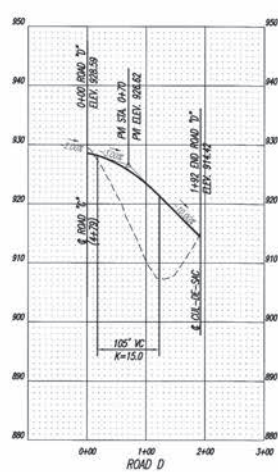
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| 1   | 2-18-21 | KKCP COMMENTS |          |      |          |          |

SCALE  
HORIZONTAL: 1" = 100'  
VERTICAL: 2" = 100'  
DATE  
01/18/21

ROAD PROFILE FOR  
INNSBRUCK FARMS  
TAX MAP 52, PARCELS 26.01, 26, 27 & 34  
TAX MAP 52NB, PARCEL 1  
DISTRICT 8, KNOX COUNTY, TENNESSEE

25300-RP1  
SHEET 5 OF 11 SHEETS  
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3-SB-21-C

2.22.2021



OWNER/DEVELOPER  
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FAX: (865) 588-6473  
email@bhn-p.com

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ECC  
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DBH

| NO. | DATE    | REVISION | APPROV. | NO. | DATE | REVISION | APPROV. |
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| 1   | 2-19-21 |          |         |     |      |          |         |

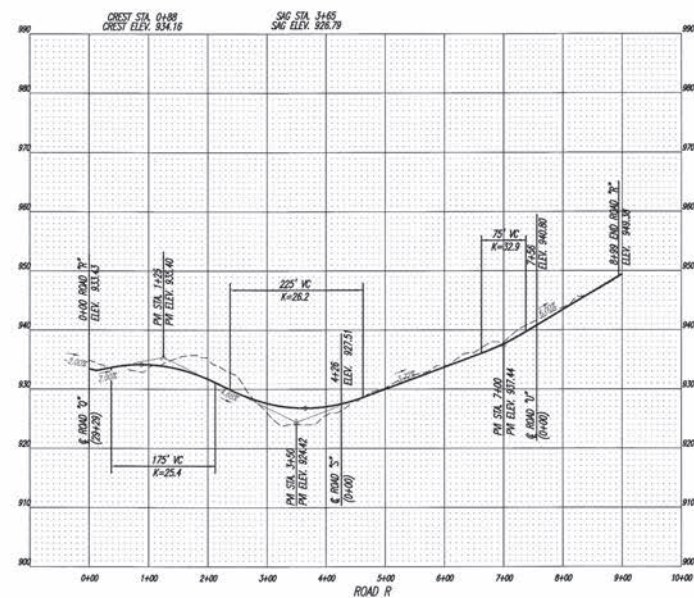
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ROAD PROFILE FOR  
INNSBRUCK FARMS

TAX MAP 52, PARCELS 26.01, 26, 27 & 34  
TAX MAP 5/2NB, PARCEL 1  
DISTRICT 8, KNOX COUNTY, TENNESSEE

25300-RP2

SHEET 6 OF 11 SHEET(S)  
01/25/2021 15:30:00 DMS



2.22.2021



OWNER/DEVELOPER  
RC RUGGLES, LLC  
C/O BLANE CRISTMAN  
16710 MURDOCK DRIVE  
KNOXVILLE, TN 37932  
PHONE: (865) 603-1509

SHEET 7 OF 11 SHEET(S)

TAX MAP 52, PARCELS 26.01, 26, 27 & 34  
TAX MAP 52NB, PARCEL 1  
DISTRICT 8, KNOX COUNTY, TENNESSEE

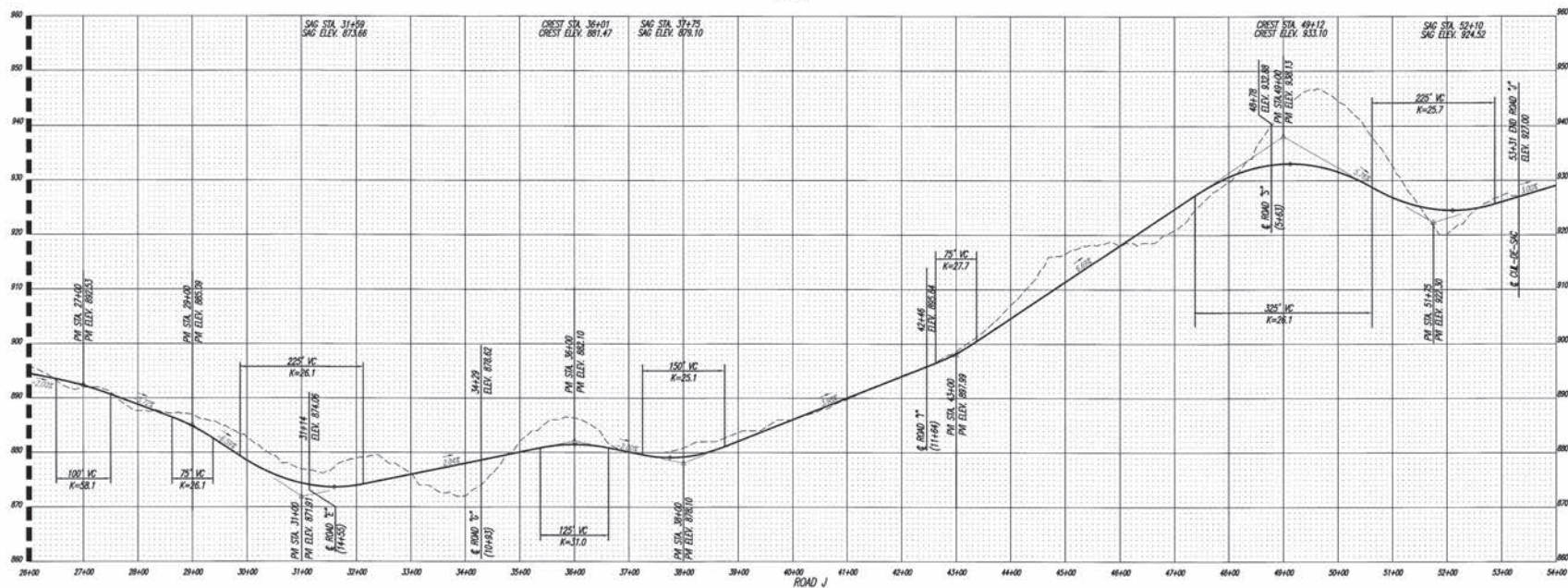
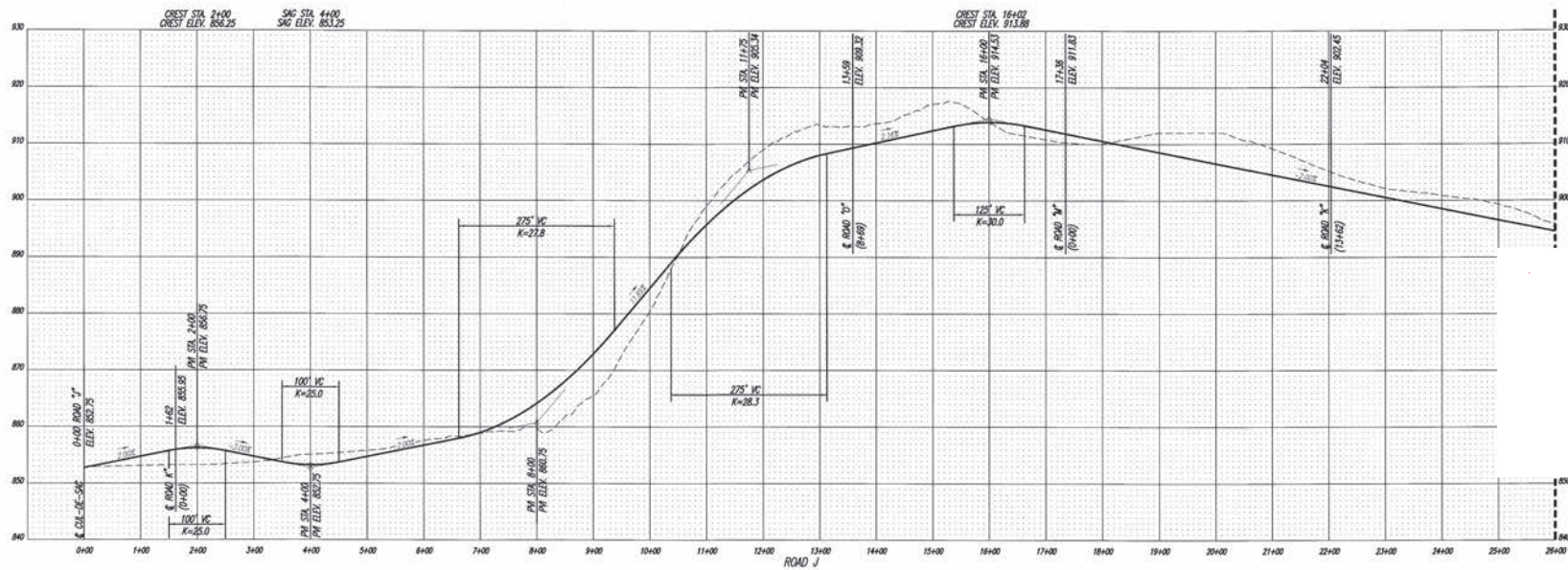


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 emsp@bhn-p.com

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3-SB-21-C

2.22.2021

Innsbruck Farms



OWNER/DEVELOPER  
RC RUGGLES, LLC  
C/O BLANE CRISTMAN  
10710 WOODOCK DRIVE  
KNOXVILLE, TN 37932  
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BATSON, HIMES, NORVELL & POE  
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DRAWN EEC  
CHECKED DBH

| NO. | DATE    | REVISION | APPROV. | NO. | DATE | REVISION | APPROV. |
|-----|---------|----------|---------|-----|------|----------|---------|
| 1   | 2-19-21 |          |         |     |      |          |         |

KKCP COMMENTS:

REVISION

APPROV.

SCALE  
HORIZONTAL: 1" = 100'  
VERTICAL: 2" INTERVAL  
DATE  
01/18/21

ROAD PROFILE FOR  
INNSBRUCK FARMS  
TAX MAP 52, PARCELS 26.01, 26, 27 & 34  
TAX MAP 52NB, PARCEL 1  
DISTRICT 8, KNOX COUNTY, TENNESSEE

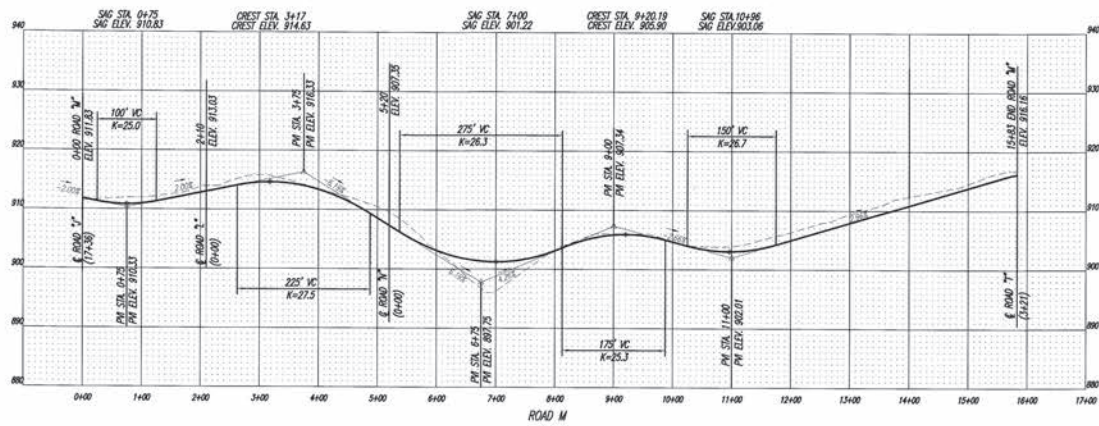
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SHEET 8 OF 11 SHEET(S)  
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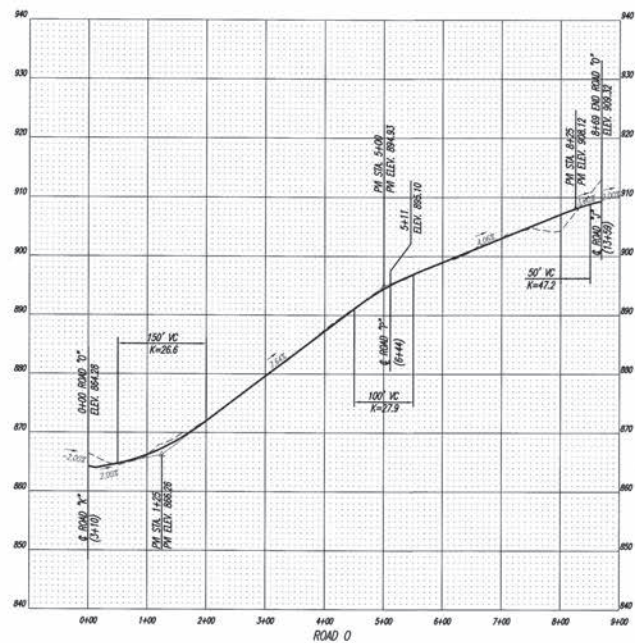
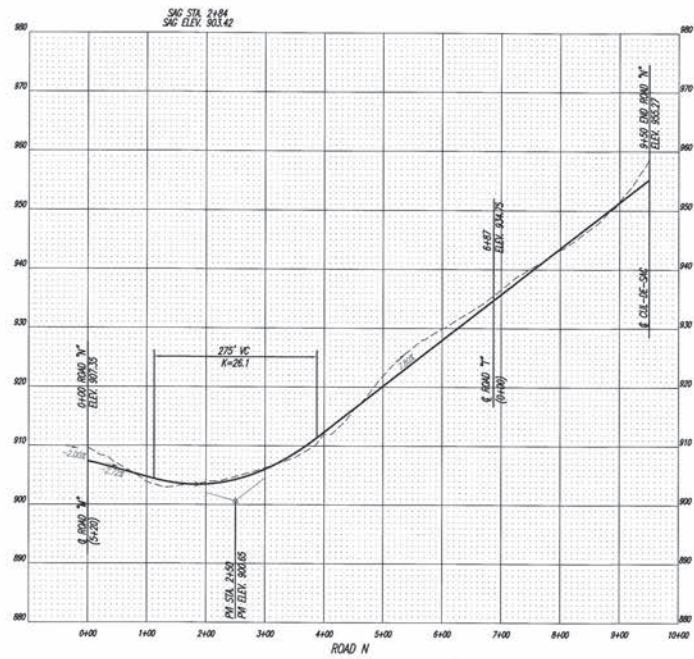






3-SB-21-C

2.22.2021



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1 2-19-21  
NO. DATE

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REVISION

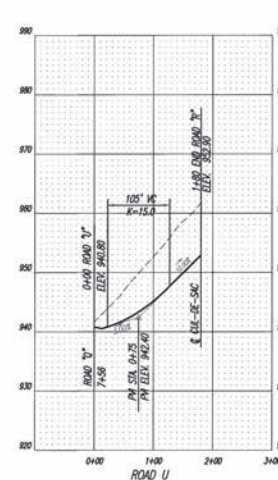
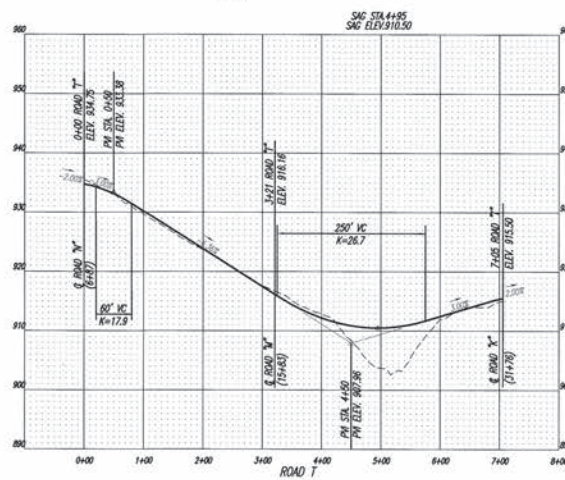
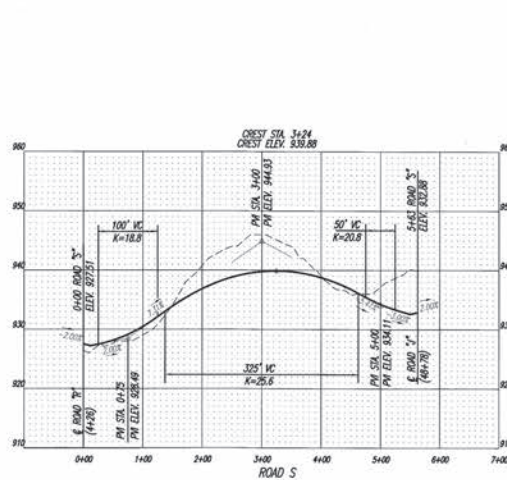
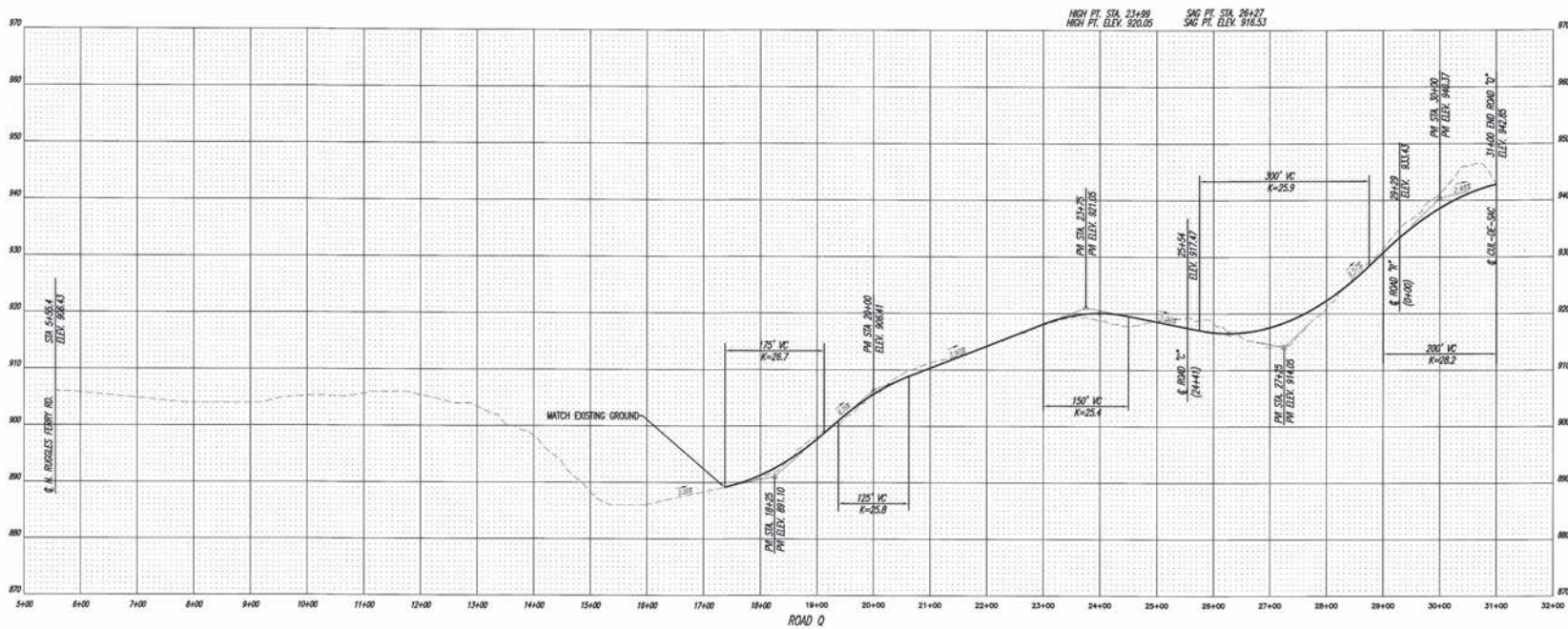
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VERTICAL: 2" = 100'  
DATE  
01/18/21

ROAD PROFILE FOR  
INNSBRUCK FARMS  
TAX MAP 52, PARCELS 26.01, 26, 27 & 34  
TAX MAP 52NB, PARCEL 1  
DISTRICT 8, KNOX COUNTY, TENNESSEE

25300-RP6

SHEET 10 OF 11 SHEET(S)  
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3-SB-21-C

2.22.2021



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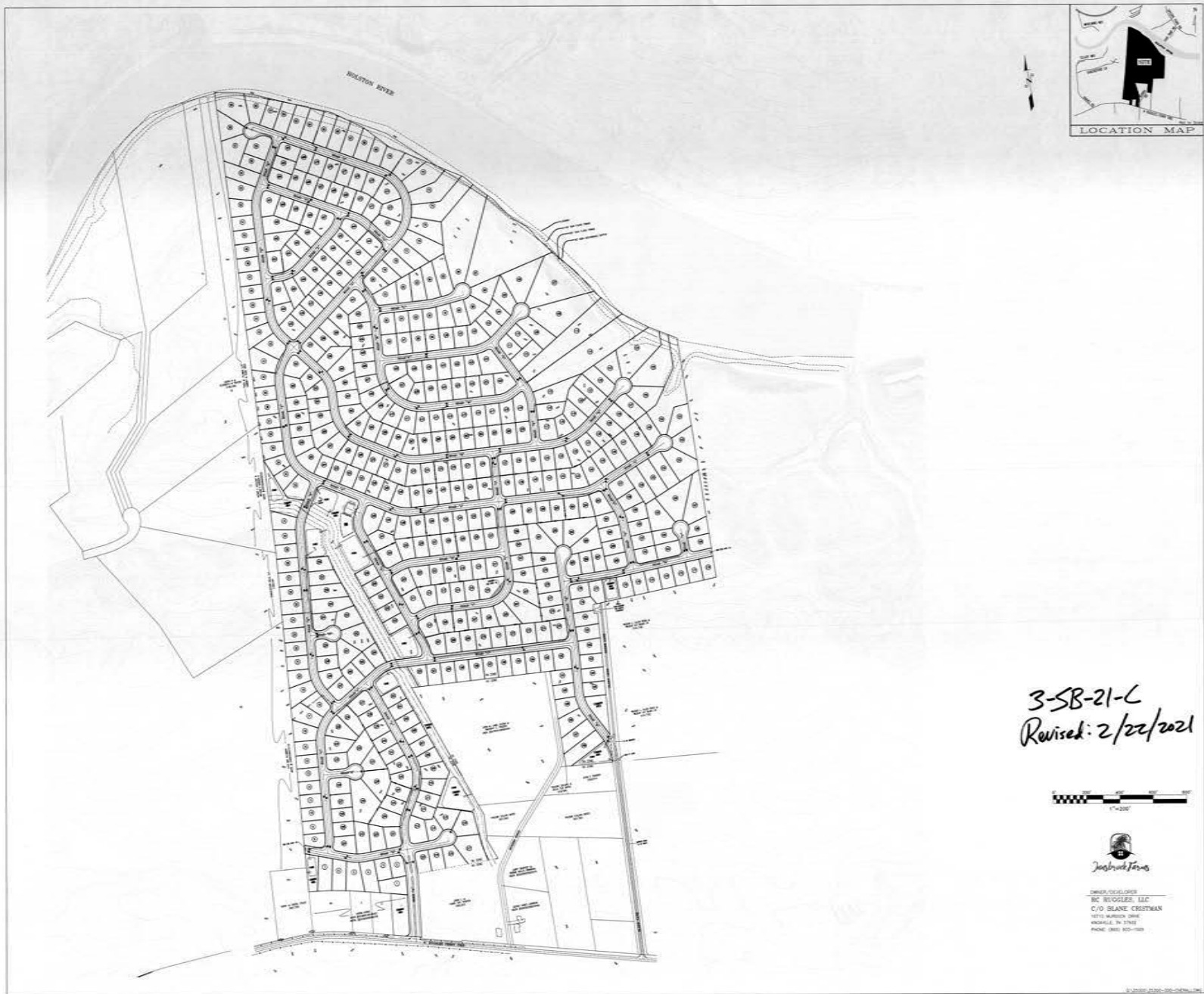
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DATE  
01/18/21

ROAD PROFILE FOR  
INNSBRUCK FARMS  
TAX MAP 52, PARCELS 26.01, 26, 27 & 34  
TAX MAP 52NB, PARCEL 1  
DISTRICT 8, KNOX COUNTY, TENNESSEE

25300-RP7

SHEET 11 OF 11 SHEET(S)  
01/25/2021 25300-RP7





3-SB-21-C  
Revised: 2/22/2021



DESIGN: JACOBUS & SONS, INC.  
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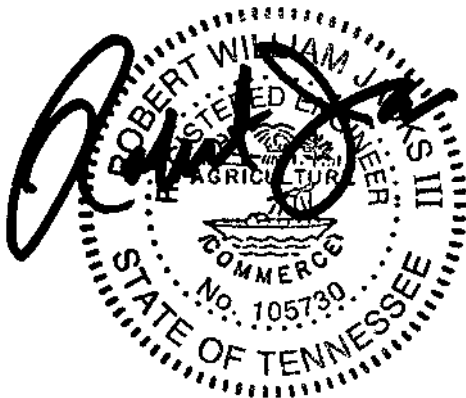
# Transportation Impact Study Innsbruck Farms Knox County, Tennessee



Revised February 2021

3-SB-21-C  
Revised: 2/26/2021

Prepared for:  
RC Ruggles, LLC  
10710 Murdock Drive  
Knoxville, TN 37932



2/26/2021





## EXECUTIVE SUMMARY

### **Preface:**

RC Ruggles, LLC is proposing a residential development north of North Ruggles Ferry Road in East Knox County, TN. The name of this proposed residential development is “Innsbruck Farms”, and this development will consist of 482 single-family residential houses on 182.8± acres. This development is anticipated to be fully built-out and occupied by the year 2028. This study's primary purpose is to determine and evaluate the potential impacts of the development on the adjacent transportation system. The study includes a review of the primary access roads and intersections and is a Level 2 study as set forth by Knoxville/Knox County Planning. Recommendations and mitigation measures will be offered where transportation operations have been projected to be below recognized engineering standards.

### **Study Results:**

The findings of this study include the following:

- At full build-out and occupancy, the Innsbruck Farms Subdivision with 482 single-family residential houses is calculated to generate 4,420 trips on an average weekday. Of these trips, 348 are estimated to occur during the AM peak hour and 460 trips in the PM peak hour in the year 2028.
- This development will have two entrances. One entrance will be constructed on North Ruggles Ferry Pike and create a new t-intersection, and one will be at an existing intersection that will be modified at North Ruggles Ferry Pike at Blake Lane. These intersections are projected in future conditions to operate with minimal delays. The two intersection ends of North Ruggles Ferry Pike at Asheville Highway and Andrew Johnson Highway were examined in the study. Both have been calculated to operate with high vehicle delays currently. Without modifications at these intersections, they are also projected to operate very poorly in the year 2028.



### Recommendations:

The following recommendations are offered based on the study analyses. The recommendations are offered to minimize the traffic impacts of the proposed development on the adjacent road system while attempting to achieve an acceptable traffic flow and safety level. The recommendations marked with an asterisk indicate an existing transportation need and are not associated with the proposed development's projected impacts.

- \* • Due to the existing high vehicle delays and meeting traffic signal warrants based on the existing traffic volumes, it is recommended that the intersection of Asheville Highway at North Ruggles Ferry Pike be signalized.
- \* • It is recommended that the existing sign (R3-2) prohibiting westbound left-turns at the intersection of Asheville Highway at North Ruggles Ferry Pike be replaced with a new sign in the interim and supplemented with additional signage (minimum of 2 additional signs) located on the east side median facing westbound traffic. Once the intersection is re-constructed with a traffic signal, this prohibition can be more pronounced by installing a sign on the span wire (or mast arm).
- \* • It is recommended that the intersection of Andrew Johnson Highway at North Ruggles Ferry Pike (West Side) be signalized. This recommendation is offered due to the existing high vehicle delays, unfavorable geometric layout of the intersection, and nearly meeting traffic signal warrants for signalization based on the existing traffic volumes. In the year 2022, traffic signal warrants are expected to be fully met, assuming that the subdivision adds approximately 60 homes in the first year of the development.
  - During the planning phase for a traffic signal at the intersection of Andrew Johnson Highway at North Ruggles Ferry Pike, it is recommended that the eastbound approach of North Ruggles Ferry Pike be examined whether an exclusive right-turn lane should be provided.
- \* • It is recommended that the median nose on the north side of the intersection on Andrew Johnson Highway be modified to help facilitate eastbound left turns from North Ruggles Ferry Pike (West Side).
  - It is recommended that Stop Signs (R1-1) and 24" white stop bars be applied to the pavement of the Road "A" and Blake Lane/Road "Q" approaches at North Ruggles Ferry Pike. The stop bars should be applied at a minimum of 4 feet away from the edge of North Ruggles Ferry Pike and should be placed at the desired stopping point that maximizes sight distance.
  - Intersection sight distance at Road "A" and Blake Lane/Road "Q" must not be



impacted by future landscaping or signage. There is an existing utility pole on the eastern side of the proposed location of Road “A” and a hedgerow on the eastern side of Blake Lane/Road “Q” at North Ruggles Ferry Pike. These existing objects could interfere with sight distance looking towards the east. A licensed land surveyor must verify the available sight distance at these subdivision entrances.

- \* • A passing zone is currently delineated on North Ruggles Ferry Pike's centerline at the proposed entrance locations. Knox County Engineering should determine whether these passing zones should be maintained once the development is constructed.
- The widening of Blake Lane will require consideration of the pavement interface between the lane and the parking area of an existing church. Pavement striping may be necessary to delineate the roadway from the parking area.
- It is recommended that 25-mph Speed Limit Signs (R2-1) be posted near the front of both streets, Road “A” and Blake Lane/Road “Q”, off North Ruggles Ferry Pike. End of roadway signage (OM4-1) should be installed at the western end of Road “B” and the eastern end of Road “R”.
- Stop Signs (R1-1) and 24” white stop bars should be installed on the new internal streets, as shown in the report.
- Sight distance at the new internal intersections in the development must not be impacted by new signage or future landscaping. With a speed limit of 25-mph in the development, the intersection sight distance requirement is 250 feet. The stopping sight distance required is 155 feet for a level road grade. The road layout designer should ensure that sight distance lengths are met.
- All drainage grates and covers for the residential development need to be pedestrian and bicycle safe.
- Sidewalks are not proposed for this development. If this changes, they should have appropriate ADA-compliant curbed ramps at intersection corners, and the sidewalks are recommended to be 5 feet minimum in width.
- Traffic calming measures might be needed for this development. Several roads within the development have long and straight road segments. The possible need for traffic calming measures inside the development should be coordinated with Knox County Engineering and Public Works during the detailed design phase.
- All road grade and intersection elements internally and externally should be designed to AASHTO, TDOT, and Knox County specifications and guidelines to ensure proper operation.

## CONCLUSIONS & RECOMMENDATIONS

The following is an overview of recommendations to minimize the traffic impacts of the proposed development on the adjacent road system while attempting to achieve an acceptable traffic flow and safety level. Overall, North Ruggles Ferry Pike's minor approaches at Asheville Highway and Andrew Johnson Highway currently operate with high vehicle delays. The requirement of increasing the tabulated traffic volumes by 20% and distributing all generated trips to each end of North Ruggles Ferry Pike at Asheville Highway and Andrew Johnson Highway resulted in worse Levels of Service and extreme vehicle delays in the projected conditions.



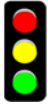
**Asheville Highway at North Ruggles Ferry Pike:** This intersection was calculated to operate poorly in the existing conditions and worse in the projected conditions in 2028. As an investigation into potential remediation for this intersection, this intersection was examined with respect to traffic signal warrants.

### Methodology:

The Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD) presents nine different warrants that have been developed by the traffic engineering profession to determine whether a traffic signal is warranted. These warrants cover a broad range of minimum elements required to indicate whether a traffic signal is justified for any particular location. These elements consist of traffic volumes, pedestrian volumes, crash history, and other factors. The MUTCD explicitly states that a traffic control signal should not be installed unless one or more of the manual's signal warrants are met. However, the satisfaction of a warrant does not entirely in itself justify the need for a traffic signal. Sometimes further engineering studies and judgments also need to be applied before justifying the need for a traffic signal installation. These additional studies are a significant step in ensuring that a traffic signal's installation will not bring about degradations in safety and efficiencies.

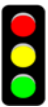
The MUTCD defines nine different warrants, two of which are potentially applicable for this intersection at this time and are explained below:





#### Warrant #1, Eight-Hour Vehicular Volume:

Warrant #1 is comprised of 2 conditions – A and B. The Minimum Vehicular Volume, Condition A, is intended for application where the volume of intersecting traffic is the principal reason for consideration of signal installation. The Interruption of Continuous Traffic, Condition B, is intended for use at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.



#### Warrant #2, Four-Hour Vehicular Volume:

The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Even though nine warrants are offered to justify a traffic signal, according to the TDOT Traffic Signal Manual, the agency gives precedence to Warrant #1 (Eight Hour Vehicular Volume) and Warrant #7 (Crash Experience). Warrant #7 is based on Crash Experience. Even though Warrant #2 is not a primary warrant used by TDOT, it is included in this study. Furthermore, TDOT does not allow installing a traffic signal on a state route based on speculative developments or unrealized traffic volumes.

The intersection of Asheville Highway at North Ruggles Ferry Pike was evaluated for justification for a traffic signal based on the MUTCD Warrants listed above and the existing (+20% adjusted) traffic count volumes. North Ruggles Ferry Pike was used as the minor side street for the warrant analysis, and Asheville Highway was the major street. Warrant #7 was not analyzed at the intersections for this study. Warrant #7 was not included because one of the primary criteria for an intersection to meet the warrant is that an “Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency...” It is not believed that any specific alternatives have been implemented and observed at these intersections; therefore, this warrant was not included in this study.

According to the Federal Highway Administration (FHWA), the traffic signal warrants are intentionally written in a manner that provides a large amount of flexibility to engineers in terms of how they determine the number of moving lanes and the volume of approaching traffic used in the analysis. The decisions about which approach lanes on the major and minor streets and the corresponding traffic volumes are determined by the engineer's judgment conducting the study or by the methods established by local and state agencies. Ultimately, it is up to the reviewing agency to determine whether right-turn volumes from the minor street should be included.

This intersection currently meets Warrant #2 and nearly meets Warrant #1, Condition B, based on the existing traffic volumes with a 20% increase. This determination was made with the analysis including southbound right-turn volumes from North Ruggles Ferry Pike (the minor street approach). Since nearly all southbound traffic volumes from North Ruggles Ferry Pike comprise right-turn movements, it is deemed appropriate to include these traffic movements in the warrant analysis. Furthermore, Warrant #1, Condition B, is satisfied 7 out of the required 8 hours. Only an additional 11 right-turns would have been needed during the 11 am – 12 noon hour for the intersection to meet Warrant #1, Condition B fully, in addition to Warrant #2. Thus, it is appropriate to assume that this intersection can be justified for a traffic signal in the current existing conditions even before the residential subdivision is developed. Appendix I contains the traffic signal warrant assessment at this intersection for the existing 2021 volumes (with a +20% increase).

With the traffic signal warrant analysis indicating that this intersection could be justified to have a traffic signal installed, Synchro Traffic Software (Version 8) was used to design a preliminary traffic signalization plan. A preliminary traffic signal timing design resulted in a much-improved level of service for the intersection based on an optimized actuated-uncoordinated cycle in the AM and PM peak hours. The level of service results for this intersection with this preliminary traffic signal timing is shown in Tables 8a and 8b. Appendix F includes the worksheets for these capacity analyses and presents the initial traffic signal timing plans. Table 8a shows the intersection results of Asheville Highway at North Ruggles Ferry Pike with the existing traffic volumes (+20% increase). Table 8b reports the intersection results in the projected 2028 conditions with the project and generated traffic volumes operating under a traffic signal.



The poor results shown in Table 8b with a traffic signal are based on the directive that all the traffic volumes generated by the development to and from the west of the development are distributed via the Asheville Highway at North Ruggles Ferry Pike intersection without deviation. This scenario requires all subdivision traffic entering from the west to turn left onto North Ruggles Ferry Pike. All subdivision exiting traffic towards the west will turn right onto Asheville Highway. In this scenario, the Level of Service and vehicle delay results are poor in the AM hour, even with a traffic signal. The results are based on an optimized 110-second actuated uncoordinated cycle in the AM and PM peak hours. While the results are unsatisfactory, it is founded on the unreasonable assumption that all the residents would travel to and from the west via this intersection without exception and not seek alternate routes to avoid the high vehicle delays for eastbound left-turns and southbound right-turns at the intersection. In reality, subdivision residents would more likely utilize North Patty Road or Cash Road off North Ruggles Ferry Pike to avoid turning at the intersection and travel thru the intersection on Asheville Highway instead.

It is recommended that further traffic counts be conducted at this intersection when either the pandemic has ended and overall traffic volumes return closer to pre-pandemic levels, or when it is surmised that overall traffic volumes have reached a “new normal”. This will allow for a re-examination of the intersection, a re-comparison of the Traffic Signal Warrants, and establish a timeframe of when this intersection could be signalized. TDOT does not allow a traffic signal installation on a state route based on speculative developments or unrealized traffic volumes. This process should be coupled with the knowledge that Innsbruck Farms Subdivision and other future developments along North Ruggles Ferry Pike will be adding vehicle traffic volumes at the intersection in the future conditions. Traffic crash data should also be included in the examination.

With the installation of a traffic signal at the intersection, the vehicle delays would decrease to manageable levels for the minor side street approaches. Without a traffic signal, even without the proposed development, the motorists from the minor side street approaches will continue to experience extensive delays during peak hours. Extreme delays can contribute to motorist impatience and increase reckless driving behavior, leading to traffic incidents.

Any traffic signal design or other remediation should include determining whether the existing eastbound left-turn lane is sufficient in length with a traffic signal. It currently provides 150 feet of storage length. A cursory initial examination of the existing eastbound left-turn volumes (with the additional 20% increase) was made in the Synchro 8 software. The results showed that the 95<sup>th</sup> percentile queue length was 84 feet in the AM peak hour and 81 feet in the PM peak hour based on the existing (+20%) traffic volumes.

Since this intersection exists on a State Route, TDOT will need to provide direction and guidance to improve this intersection to reduce the considerable existing vehicle delays. The City of Knoxville will also need to be involved since they will assume ownership if a traffic signal is installed since this intersection lies within the city limits. TDOT does not own, operate, or maintain traffic signals, and the responsibility would belong to the local government.

A final recommendation for this intersection is regarding the prohibition of westbound left-turns from Asheville Highway to the Knox Farmers Cooperative parking lot. The existing sign (R3-2) stating this prohibition is dull and faded and should be more authoritatively presented. Several motorists were observed making this prohibited movement. This sign is recommended to be replaced with a new sign in the



**Median of Asheville Highway  
at North Ruggles Ferry Pike  
(Looking West)**

interim and supplemented with additional signage (minimum of 2 additional signs) located in the east median facing westbound traffic. Once the intersection is reconstructed with a traffic signal, this prohibition can be more pronounced by installing a sign on the span wire (or mast arm).

A summary of the recommendations at this intersection is shown in Figure 9a.





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NOT TO SCALE




FIGURE 9a

Innsbruck Farms

Summary of Recommended External  
Road Improvements - Asheville Highway  
at North Ruggles Ferry Pike

**TABLE 8a**  
**2021 SIGNALIZED INTERSECTION CAPACITY ANALYSIS RESULTS -**  
**ASHEVILLE HIGHWAY AT NORTH RUGGLES FERRY PIKE**  
**EXISTING TRAFFIC CONDITIONS (+20%)**

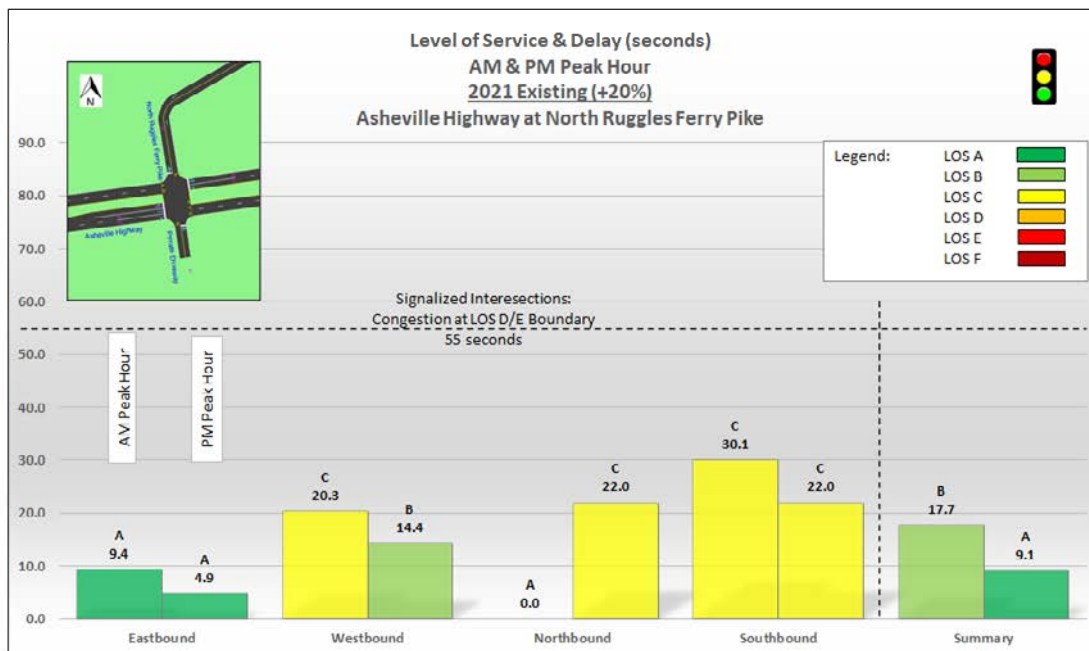
| INTERSECTION                                  | TRAFFIC CONTROL  | APPROACH/ MOVEMENT | AM PEAK          |                                 |                  | PM PEAK          |                                 |                  |
|---|--|--------------------|------------------|---------------------------------|------------------|------------------|---------------------------------|------------------|
|   |  |                    | LOS <sup>a</sup> | DELAY <sup>b</sup><br>(seconds) | v/c <sup>c</sup> | LOS <sup>a</sup> | DELAY <sup>b</sup><br>(seconds) | v/c <sup>c</sup> |
| Asheville Highway at North Ruggles Ferry Pike |  Signalized | Eastbound          | A                | 9.4                             | 0.830            | A                | 4.9                             | 0.650            |
|   |  | Westbound          | C                | 20.3                            |                  | B                | 14.4                            |                  |
|   |  | Northbound         | A                | 0.0                             |                  | C                | 22.0                            |                  |
|   |  | Southbound         | C                | 30.1                            |                  | C                | 22.0                            |                  |
|   |  | Summary            | B                | 17.7                            |                  | A                | 9.1                             |                  |

Note: All analyses were calculated in Synchro 8 software and reported with HCM 2000 methodology for signalized intersections  
Optimized Cycle Length = 75 Seconds

<sup>a</sup> Level of Service


<sup>b</sup> Average Delay (sec/vehicle)

<sup>c</sup> Volume-to-Capacity Ratio





**TABLE 8b**  
**2028 SIGNALIZED INTERSECTION CAPACITY ANALYSIS RESULTS -**  
**ASHEVILLE HIGHWAY AT NORTH RUGGLES FERRY PIKE**  
**OPENING YEAR (2028 WITH PROJECT)**

| INTERSECTION                                  | TRAFFIC CONTROL   | APPROACH/ MOVEMENT | AM PEAK          |                                 |                  | PM PEAK          |                                 |                  |
|---|---|--------------------|------------------|---------------------------------|------------------|------------------|---------------------------------|------------------|
|   |   |                    | LOS <sup>a</sup> | DELAY <sup>b</sup><br>(seconds) | v/c <sup>c</sup> | LOS <sup>a</sup> | DELAY <sup>b</sup><br>(seconds) | v/c <sup>c</sup> |
| Asheville Highway at North Ruggles Ferry Pike |  | Eastbound          | C                | 26.8                            |                  | A                | 8.0                             |                  |
|   |   | Westbound          | E                | 66.5                            |                  | C                | 23.9                            |                  |
|   |   | Northbound         | A                | 0.0                             |                  | D                | 35.2                            |                  |
|   |   | Southbound         | F                | 88.2                            |                  | D                | 35.2                            |                  |
|   |   | Summary            | E                | 57.6                            | 1.030            | B                | 14.9                            | 0.730            |

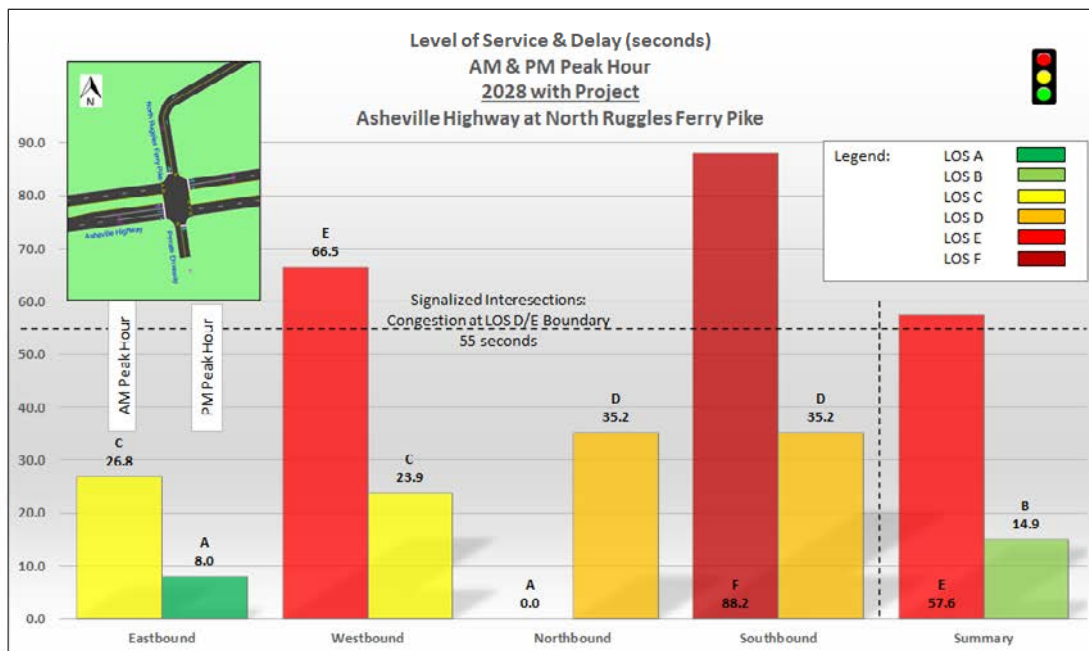
Note: All analyses were calculated in Synchro 8 software and reported with HCM 2000 methodology for signalized intersections

Optimized Cycle Length = 110 Seconds

<sup>a</sup> Level of Service

<sup>b</sup> Average Delay (sec/vehicle)

<sup>c</sup> Volume-to-Capacity Ratio





**Andrew Johnson Highway at North Ruggles Ferry Pike (East Side & West Side):** Both approaches of North Ruggles Ferry Pike (East Side and West Side) at Andrew Johnson Highway have been shown to operate very poorly with respect to Level of Service and with extreme vehicle delays in the existing conditions as well as the projected 2028 conditions. There are many operational issues with these existing intersections that will need to be addressed and are outside the impacts produced by the proposed Innsbruck Farms Subdivision.

This existing intersection is laid out in an extremely disadvantageous manner for motorists. Both sides of North Ruggles Ferry Pike intersect Andrew Johnson Highway at a sharp skewed angle of almost 30°. This skew would be unacceptable for a newly constructed intersection. Most roadway design standards indicate intersection angles between 75° and 90° are desirable and angles between 60° and 75° degrees are acceptable. Angles less than 60° are sub-standard and produce operational issues and particularly sight distance issues. Both ends of North Ruggles Ferry Pike at Andrew Johnson Highway are laid out with short lengths of roadway attempting to intersect the highway at a more acceptable angle, albeit for about a single car length.



**North Ruggles Ferry Pike (East Side) at  
Andrew Johnson Highway  
(Looking East)**



**North Ruggles Ferry Pike (West Side) at  
Andrew Johnson Highway  
(Looking East)**



As stated previously, a fair amount of traffic was observed “crossing” Andrew Johnson Highway from one side of North Ruggles Ferry Pike to the other and vice versa. Most of the existing turn movements on each side of North Ruggles Ferry Pike are left-turns onto Andrew Johnson Highway. In the future, it is expected that entering and exiting traffic generated by the proposed subdivision (shown in Figure 6b) will contribute heavily to these volumes. These volume contributions will include left-turns from North Ruggles Ferry Pike (West Side) for travel towards Jefferson City, left-turns from North Ruggles Ferry Pike (West Side) for travel across (“thru”) Andrew Johnson Highway to the other side of North Ruggles Ferry Pike (East Side) and vice versa. It was also previously shown that the existing level of service for these approaches of North Ruggles Ferry Pike is extremely poor with high vehicle delays.

The intersection of Andrew Johnson Highway at North Ruggles Ferry Pike (West Side) was also examined with respect to traffic signal warrants based on MUTCD Warrants for the existing (+20% adjusted) traffic volumes. Only North Ruggles Ferry Pike (West Side) was examined since the North Ruggles Ferry Pike (East Side) intersection has significantly fewer minor street volumes. For the traffic signal warrant analysis, North Ruggles Ferry Pike (West Side) was used as the minor side street, and Andrew Johnson Highway was the major street.

The analysis concluded that for the existing (+20% adjusted) traffic volumes, the intersection does not meet Warrant #1 or Warrant #2 even though the Level of Service calculations determined that the minor approaches at this intersection currently operate at LOS F during the AM and PM peak hour.

There are no easy or simple solutions for the existing conditions to reduce vehicle delays for this intersection. Remediation for the existing intersection is impeded due to many factors that include road geometrics, potentially limited right-of-way, many existing private driveways, and large thru volumes on Andrew Johnson Highway. Adding separate left-turn lanes on each side of North Ruggles Ferry Pike at Andrew Johnson Highway would decrease the delays for right-turn movements but will do little to decrease delays overall.

Since easily offered remediation is not readily apparent for this intersection, the intersection was re-examined with respect to traffic signal warrants. As stated previously,

TDOT does not typically accept justification for traffic signals except for Warrant #1 and #7. Warrant #7 was not examined for this study. Adding a traffic signal at this location would decrease vehicle delays for the minor street approach and potentially improve safety by reducing unprotected left-turns into the high thru volume streams on Andrew Johnson Highway. Another warrant, Warrant #3, is an alternative method to justify a traffic signal at this location. Warrant #3 is usually only used in rare instances such as locations near office complexes, manufacturing plants, etc. According to the MUTCD, Warrant #3 “is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.”

Warrant #3, Condition A, was met for the intersection of Andrew Johnson Highway at North Ruggles Ferry Pike (West Side) for the existing (+20% adjusted) traffic volumes. Appendix I shows the traffic signal warrant assessment at this intersection for the existing volumes of 2021 (with a +20% increase).

Outside of allowing the intersection to be currently signalized based on meeting Warrant #3, the intersection was further analyzed to determine when the volumes would justify a traffic signal based on Warrant #1. A spreadsheet was developed to determine the traffic volumes generated by the development being added to the intersection of Andrew Johnson Highway at North Ruggles Ferry Pike (West Side) based on the traffic distribution shown previously. This spreadsheet is provided in Appendix I. It is estimated that this intersection will meet Warrant #1, Condition B, and Warrant #2 in the year 2022. This estimation is based on the existing (+20%) traffic volumes and assuming a linear growth of home construction and occupancy in the subdivision over the seven years (slightly over 60 houses per year). This small length of time from not meeting Warrant #1 and #2 to potentially meeting the warrants is due to assuming the development will add 60 homes with residents with a subsequent 631 generated daily trips in the first year of construction (2022). Distributing and assigning a portion of those new trips at the intersection results in meeting the warrant thresholds.

With the traffic signal warrant analysis indicating that this intersection could be justified to have a traffic signal installed, Synchro Traffic Software (Version 8) was used to design a preliminary traffic signalization plan. A preliminary traffic signal timing design resulted in a much-improved level of service for the intersection based on an optimized



actuated-uncoordinated cycle in the AM and PM peak hours. The level of service results for this intersection with this preliminary traffic signal timing is shown in Tables 9a and 9b. Appendix F includes the worksheets for these capacity analyses and presents the initial traffic signal timing plans. Table 9a shows the intersection results of Andrew Johnson Highway at North Ruggles Ferry Pike with the existing traffic volumes (+20% increase). Table 9b reports the intersection results in the projected 2028 conditions with the project and generated traffic volumes operating under a traffic signal.

The results shown in Table 9b are based on the directive that all the traffic volumes generated by the development to and from the east of the development be distributed via the Andrew Johnson Highway at North Ruggles Ferry Pike (West Side) intersection without deviation. Unlike the opposite end of North Ruggles Ferry Pike at Asheville Highway, it is expected and reasonable to believe that all traffic to and from the east of the development will travel through this intersection since there are no sensible alternative routes of travel or shortcuts. As observed in the manual traffic counts, there is a reasonable amount of traffic that travels from North Ruggles Ferry Pike towards Jefferson City and across (“thru”) Andrew Johnson Highway towards Strawberry Plains Pike and vice versa. The manual traffic count observation was documented evidence of an existing traffic pattern, which would be expected to continue and increase when new trips are generated from the subdivision in the future.

Similar to the previous recommendations for the intersection of Asheville Highway at North Ruggles Ferry Pike, it is recommended that further traffic counts be conducted again at this intersection when either the pandemic has ended and overall traffic volumes return closer to pre-pandemic levels, or when it is surmised that overall traffic volumes have reached a “new normal”. TDOT does not allow a traffic signal installation on a state route based on speculative developments or unrealized traffic volumes. This will allow for a re-examination of the intersection, a re-comparison of the Traffic Signal Warrants, and establish a timeframe of when this intersection could be signalized. Traffic crash data should also be included in the examination.

Also, during the planning phase for a traffic signal at the intersection of Andrew Johnson Highway at North Ruggles Ferry Pike, it is recommended that the eastbound approach of North Ruggles Ferry Pike be examined whether an exclusive right-turn lane should be provided. Adding an exclusive lane would allow for the separation of left and right-turn

movements.

With the installation of a traffic signal at the intersection, the vehicle delays would decrease to manageable levels for the minor side street approaches. Without a traffic signal, even without the proposed development, the motorists from the minor side street approaches will continue to experience considerable delays during peak hours. High delays can contribute to motorist impatience and increase reckless driving behavior, leading to traffic incidents.

Any traffic signal design or other remediation should include determining whether the existing northbound left-turn lane is sufficient in length with a traffic signal. It currently provides 75 feet of storage length. A cursory initial examination of the existing northbound left-turn volumes (with the additional 20% increase) was made in the Synchro 8 software. The results showed that the 95<sup>th</sup> percentile queue length was 20 feet in the AM peak hour and 24 feet in the PM peak hour based on the existing (+20%) traffic volumes.

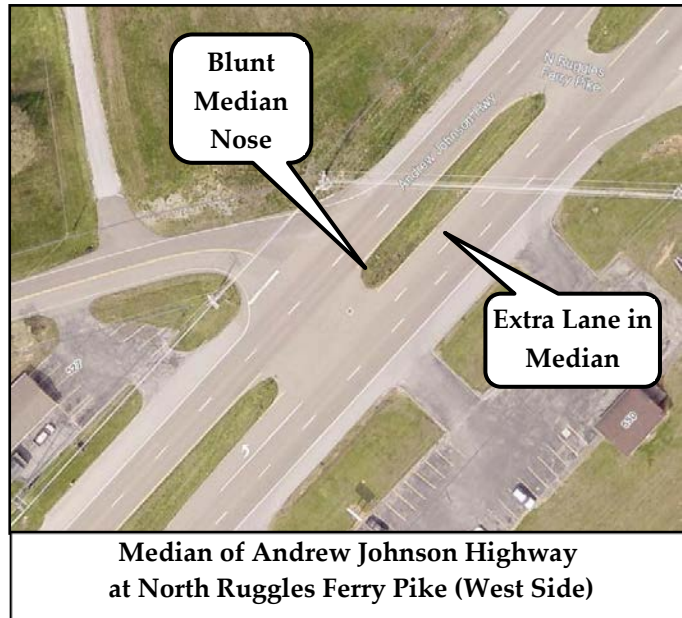
Since this intersection exists on a State Route, TDOT will need to provide direction and guidance to improve this intersection to reduce the considerable existing vehicle delays. Knox County will also need to be involved since they will assume ownership if a traffic signal is installed since this intersection lies within the county limits. TDOT does not own, operate, or maintain traffic signals, and the responsibility would belong to the local government.

The intersection of Andrew Johnson Highway at North Ruggles Ferry Pike (East Side) was not included in the proposed preliminary traffic signal recommendation for the Andrew Johnson Highway at North Ruggles Ferry Pike (West Side). The exclusion is due to North Ruggles Ferry Pike (East Side) having significantly lower traffic volumes and operating as a t-intersection with fewer conflicting movements than the 4-way intersection of North Ruggles Ferry Pike (West Side). Installing a traffic signal at North Ruggles Ferry Pike (West Side) would create significantly more traffic gaps to allow for westbound turning movements from North Ruggles Ferry Pike (East Side). To incorporate both these intersections under a unified, coordinated traffic signal control would require careful consideration and could result in additional vehicle delays and reduced capacities since these two intersections are separated by approximately 250 feet. For this design to work correctly and safely at this location, the turning movements on North Ruggles Ferry Pike



(West Side) and the turning movements on North Ruggles Ferry Pike (East Side) would require creative traffic signal phasing and timing.


A final note and recommendation for the Andrew Johnson Highway at North Ruggles Ferry Pike (West Side) intersection is the existing north side median nose. For eastbound left-turns from North Ruggles Ferry Pike (West Side) towards the north onto Andrew Johnson Highway, an extra lane is provided in the median that allows for temporary refuge and space to allow for vehicle acceleration to merge into the traffic stream.



However, the existing median nose is extremely prohibitive to allowing this turn. The median nose is blunt and does not facilitate left-turns onto the highway and reduces the potential usefulness of the extra lane in the median. It is recommended that this median nose be modified to help facilitate eastbound left turns from North Ruggles Ferry Pike (West Side).

A summary of the recommendations at this intersection is shown in Figure 9b.

**TABLE 9a**  
**2021 SIGNALIZED INTERSECTION CAPACITY ANALYSIS RESULTS -**  
**ANDREW JOHNSON HIGHWAY AT NORTH RUGGLES FERRY PIKE (WEST SIDE)**  
**EXISTING TRAFFIC CONDITIONS (+20%)**

| INTERSECTION   | TRAFFIC CONTROL  | APPROACH/<br>MOVEMENT | AM PEAK          |                                 |                  | PM PEAK          |                                 |                  |
|--|--|-----------------------|------------------|---------------------------------|------------------|------------------|---------------------------------|------------------|
|  |  |                       | LOS <sup>a</sup> | DELAY <sup>b</sup><br>(seconds) | v/c <sup>c</sup> | LOS <sup>a</sup> | DELAY <sup>b</sup><br>(seconds) | v/c <sup>c</sup> |
| Andrew Johnson Highway at<br>North Ruggles Ferry Pike<br>(West Side) |  Signalized | Eastbound             | C                | 22.4                            |                  | C                | 20.9                            |                  |
|  |  | Westbound             | A                | 0.0                             |                  | B                | 18.9                            |                  |
|  |  | Northbound            | A                | 2.7                             |                  | A                | 3.8                             |                  |
|  |  | Southbound            | A                | 4.0                             |                  | A                | 3.2                             |                  |
|  |  | Summary               | A                | 4.5                             | 0.550            | A                | 4.3                             | 0.530            |

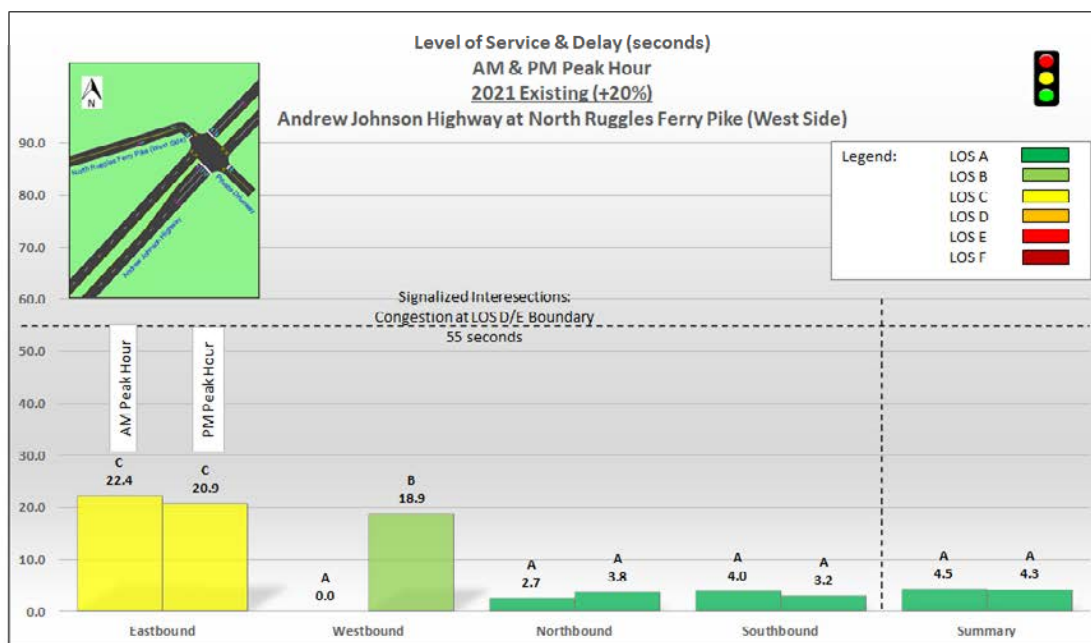
Note: All analyses were calculated in Synchro 8 software and reported with HCM 2000 methodology for signalized intersections

Optimized Cycle Length = 55 Seconds

<sup>a</sup> Level of Service


<sup>b</sup> Average Delay (sec/vehicle)

<sup>c</sup> Volume-to-Capacity Ratio





**TABLE 9b**  
**2028 SIGNALIZED INTERSECTION CAPACITY ANALYSIS RESULTS -**  
**ANDREW JOHNSON HIGHWAY AT NORTH RUGGLES FERRY PIKE (WEST SIDE)**  
**OPENING YEAR (2028 WITH PROJECT)**

| INTERSECTION   | TRAFFIC CONTROL  | APPROACH/<br>MOVEMENT | AM PEAK          |                                 |                  | PM PEAK          |                                 |                  |
|--|--|-----------------------|------------------|---------------------------------|------------------|------------------|---------------------------------|------------------|
|  |  |                       | LOS <sup>a</sup> | DELAY <sup>b</sup><br>(seconds) | v/c <sup>c</sup> | LOS <sup>a</sup> | DELAY <sup>b</sup><br>(seconds) | v/c <sup>c</sup> |
| Andrew Johnson Highway at<br>North Ruggles Ferry Pike<br>(West Side) |  Signalized | Eastbound             | C                | 24.6                            |                  | C                | 21.1                            |                  |
|  |  | Westbound             | A                | 0.0                             |                  | B                | 16.5                            |                  |
|  |  | Northbound            | A                | 5.9                             |                  | A                | 8.1                             |                  |
|  |  | Southbound            | B                | 10.3                            |                  | A                | 7.0                             |                  |
|  |  | Summary               | B                | 10.3                            | 0.740            | A                | 8.7                             | 0.660            |

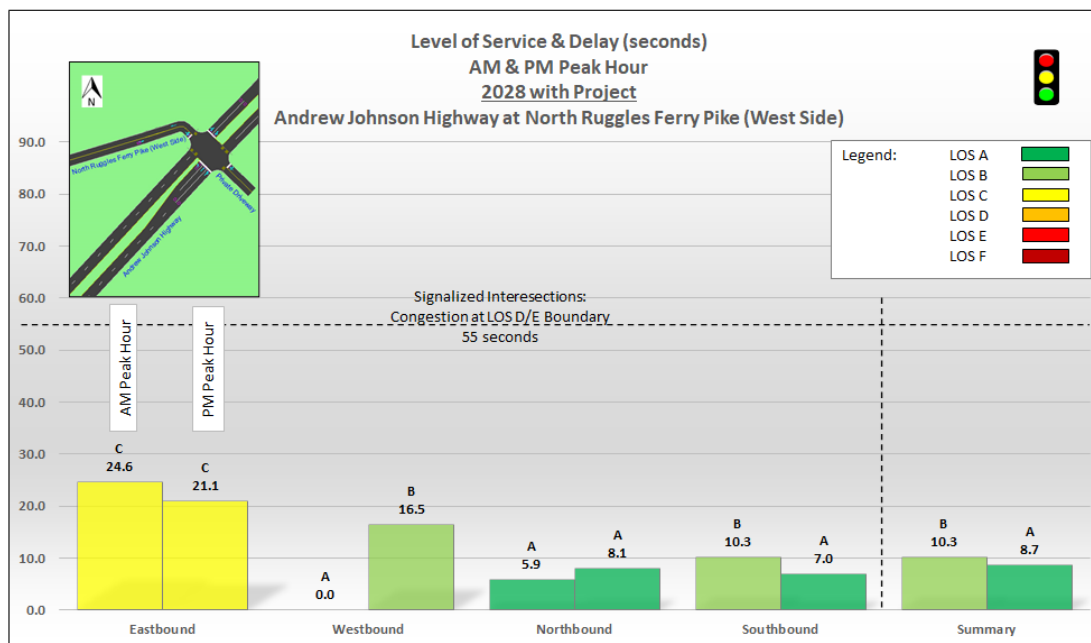
Note: All analyses were calculated in Synchro 8 software and reported with HCM 2000 methodology for signalized intersections

Optimized Cycle Length = 60 Seconds

<sup>a</sup> Level of Service

<sup>b</sup> Average Delay (sec/vehicle)

<sup>c</sup> Volume-to-Capacity Ratio





11812 Black Road  
Knoxville, TN 37932  
Phone: (865) 556-0042  
Email: ajaxengineering@gmail.com

NOT TO SCALE



FIGURE 9b

Innsbruck Farms

Summary of Recommended External Road Improvements - Andrew Johnson Highway at North Ruggles Ferry Pike





**North Ruggles Ferry Pike at Blake Lane / Road “Q”:** The intersection of North Ruggles Ferry Pike at Blake Lane / Road “Q” was calculated to operate very well with respect to level of service in the projected conditions in 2028.

- 3a) A separate exiting left-turn lane or right-turn lane on Blake Lane/Road “Q” at North Ruggles Ferry Pike is not required based on the projected 2028 traffic volumes.
- 3b) Separate eastbound or westbound lanes on North Ruggles Ferry Pike for entering traffic into the subdivision at Blake Lane/Road “Q” are not warranted.
- 3c) It is recommended that a Stop Sign (R1-1) and a 24” white stop bar be applied to the pavement of the Blake Lane/Road “Q” approach at North Ruggles Ferry Pike. The stop bar should be applied at a minimum of 4 feet away from the edge of North Ruggles Ferry Pike and should be placed at the desired stopping point that provides the maximum sight distance. An existing Stop Sign (R1-1) currently exists on this north approach but will need to be relocated to widen Blake Lane/Road “Q”.
- 3d) Intersection sight distance at Blake Lane/Road “Q” must not be impacted by future landscaping or signage. Based on a posted speed limit of 40-mph on North Ruggles Ferry Pike, the required intersection sight distance (ISD) is 400 feet looking in each direction at the intersection of North Ruggles Ferry Pike at Blake Lane/Road “Q”. Based on an existing 4% grade on North Ruggles Ferry Pike at Blake Lane/Road “Q” and a posted speed limit of 40-mph, the SSD is calculated to be 285 feet for eastbound and 325 feet for westbound vehicles. There is an existing hedgerow on the eastern side of Blake Lane/Road “Q” at North Ruggles Ferry Pike. This hedgerow could interfere with sight distance looking towards the east. This hedgerow will need to be maintained regularly. A licensed land surveyor must verify the available sight distance at this proposed subdivision entrance.
- 3e) A passing zone for both directions is currently delineated on North Ruggles Ferry Pike's centerline at this proposed entrance location. Knox County Engineering should determine whether this location should maintain this passing zone once the development is constructed with the new entrances.

- 3f) There is a small church located on the northwestern corner of this intersection. The parking lot for this church abuts Blake Lane. The widening of Blake Lane will require consideration of the pavement interface between the lane and the parking area of the church. Pavement striping may be necessary to delineate the roadway from the parking area.







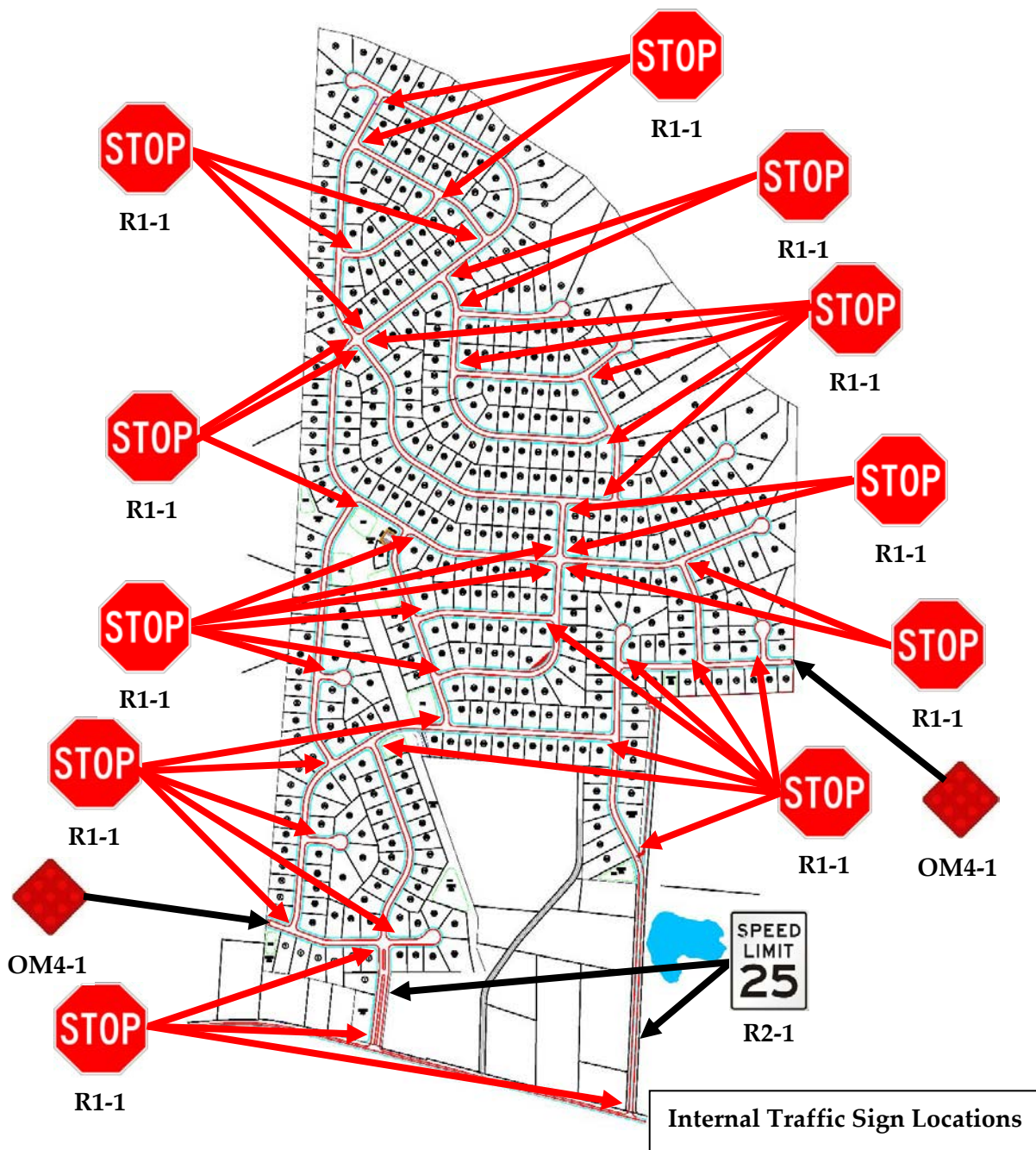
**North Ruggles Ferry Pike at Road "A":** The intersection of North Ruggles Ferry Pike at Road "A" was calculated to operate very well with respect to level of service in the projected conditions in 2028.

- 4a) A separate exiting left-turn lane or right-turn lane on Road "A" at North Ruggles Ferry Pike is not required based on the projected 2028 traffic volumes.
- 4b) Separate eastbound or westbound lanes on North Ruggles Ferry Pike for entering traffic into the subdivision at Road "A" are not warranted.
- 4c) It is recommended that a Stop Sign (R1-1) and a 24" white stop bar be applied to the pavement of the Road "A" approach at North Ruggles Ferry Pike. The stop bar should be applied at a minimum of 4 feet away from the edge of North Ruggles Ferry Pike and should be placed at the desired stopping point that provides the maximum sight distance.
- 4d) Intersection sight distance at Road "A" must not be impacted by future landscaping or signage. Based on a posted speed limit of 40-mph on North Ruggles Ferry Pike, the required intersection sight distance (ISD) is 400 feet looking in each direction at the intersection of North Ruggles Ferry Pike at and Road "A". Based on an existing 4% grade on North Ruggles Ferry Pike at Road "A" and a posted speed limit of 40-mph, the SSD is calculated to be 325 feet for eastbound and 285 feet for westbound vehicles. There is an existing utility pole on the eastern side of the proposed location of Road "A" at North Ruggles Ferry Pike. This pole could interfere with sight distance looking towards the east. This pole may be removed or relocated to construct Road "A". A licensed land surveyor must verify the available sight distance at this proposed subdivision entrance.
- 4e) A passing zone for eastbound traffic is currently delineated on North Ruggles Ferry Pike's centerline at this proposed entrance location. Knox County Engineering should determine whether this location should maintain this passing zone once the development is constructed.



**Innsbruck Farms Internal Roads:** The current concept plan shows twenty-one new roads being constructed within the development, as shown in Figure 3.

- 5a) It is recommended that 25-mph Speed Limit Signs (R2-1) be posted near the front of both new streets, Road "A" and Blake Lane/Road "Q", off North Ruggles Ferry Pike. End of roadway signage (OM4-1) should be installed at the western end of Road "B" and the eastern end of Road "R". Stop Signs (R1-1) with 24" white stop bars and other traffic signage should be installed at the locations, as shown below:



- 5b) Sight distance at the new internal intersections in the development must not be impacted by new signage or future landscaping. With a speed limit of 25-mph in the development, the intersection sight distance requirement is 250 feet. The stopping sight distance required is 155 feet for a level road grade. The road layout designer should ensure that sight distance lengths are met.
- 5c) All drainage grates and covers for the residential development need to be pedestrian and bicycle safe.
- 5d) Sidewalks are not proposed for this development. If this changes, they should have appropriate ADA-compliant curbed ramps at intersection corners, and the sidewalks are recommended to be 5 feet minimum in width.
- 5e) Traffic calming measures might be needed for this development. Several roads within the development have long and straight road segments. The possible need for traffic calming measures inside the development should be coordinated with Knox County Engineering and Public Works during the detailed design phase.
- 5f) It is a long-standing practice by Knox County that residential subdivisions provide secondary outlets when developments exceed 150 lots. Providing two entrances will spread the load of entering and exiting vehicles. The two entrances, Road "A" and Blake Lane/Road "Q" will be spaced approximately 1,300 feet apart and are not expected to interfere with traffic operations at one another. The Knox County requirement for intersection spacing on a collector road is 300 feet. The spacing between Road "A" and Burris Road is 565 feet. The spacing between Blake Lane/Road "Q" and Burris Road is 735 feet.
- 5g) All road grade and intersection elements internally and externally should be designed to AASHTO, TDOT, and Knox County specifications and guidelines to ensure proper operation.





# Development Request

## DEVELOPMENT

- ☐ Development Plan  
☐ Planned Development  
☐ Use on Review / Special Use  
☐ Hillside Protection COA

## SUBDIVISION

- ☒ Concept Plan  
☐ Final Plat

## ZONING

- ☐ Plan Amendment  
☐ SP ☐ OYP  
☐ Rezoning

RC RUGGLES, LLC

Applicant Name

Affiliation

1-21-21

Date Filed

3-11-21

Meeting Date (if applicable)

File Number(s)

3-SB-21-C

## CORRESPONDENCE

All correspondence related to this application should be directed to the approved contact listed below.

- ☐ Applicant ☐ Owner ☐ Option Holder ☐ Project Surveyor ☒ Engineer ☐ Architect/Landscape Architect

David Harbin

Batson, Himes, Norvell & Poe

Name

Company

4334 Papermill Drive

Knoxville

TN

37909

Address

City

State

ZIP

865-588-6472

harbin@bhn-p.com

Phone

Email

## CURRENT PROPERTY INFO

c/o Blaine Cristman

10710 Murdock Drive 37932

865-603-1509

Owner Name (if different)

Owner Address

Owner Phone

0 N Ruggles Ferry Pike et. al.

MAP 52 PARCELS 26.01, 26, 27, 32 & 34

Property Address

Parcel ID MAP 52NB parcel 1

KUB

KUB

N

Sewer Provider

Water Provider

Septic (Y/N)

## STAFF USE ONLY

General Location

N/S Ruggles Ferry, W & north of Blake Ln  
East of Graves Rd

Tract Size

171.88 acres (approx)

☐ City ☒ County

District 8th

Zoning District

A-1, RA

Existing Land Use

Vacant

Planning Sector

Sector Plan Land Use Classification

LDR/HP

Growth Policy Plan Designation

Planned

**DEVELOPMENT REQUEST**

- ☐ Development Plan ☐ Use on Review / Special Use ☐ Hillside Protection COA  
☐ Residential ☐ Non-Residential

Home Occupation (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

Related City Permit Number(s)

**SUBDIVISION REQUEST**

Innsbruck Farms

Proposed Subdivision Name

482

Related Rezoning File Number

Unit / Phase Number

☐ Combine Parcels☐ Divide Parcel

Total Number of Lots Created

☐ Other (specify) \_\_\_\_\_☐ Attachments / Additional Requirements**ZONING REQUEST**☐ Zoning Change

Proposed Zoning

Pending Plat File Number

☐ Plan Amendment Change

Proposed Plan Designation(s)

Proposed Density (units/acre)

Previous Rezoning Requests

☐ Other (specify) \_\_\_\_\_**STAFF USE ONLY****PLAT TYPE**

- ☐ Staff Review ☐ Planning Commission

**ATTACHMENTS**

- ☐ Property Owners / Option Holders ☐ Variance Request

**ADDITIONAL REQUIREMENTS**

- ☐ Design Plan Certification (Final Plat)  
☐ Use on Review / Special Use (Concept Plan)  
☐ Traffic Impact Study  
☐ COA Checklist (Hillside Protection)

Fee 1

Total

0108 500.00

Fee 2

#30/lot  
x482 14,460.00

Fee 3

\$14,960.00

**AUTHORIZATION**

By signing below, I certify I am the property owner, applicant or the owners authorized representative.

Applicant Signature

Please Print

Date

865-588-6472  
Phone Numberharbin@bhn-p.com  
Email

Staff Signature

Please Print

Date



David Harbin

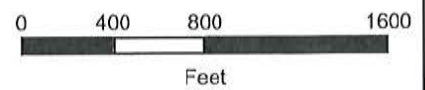
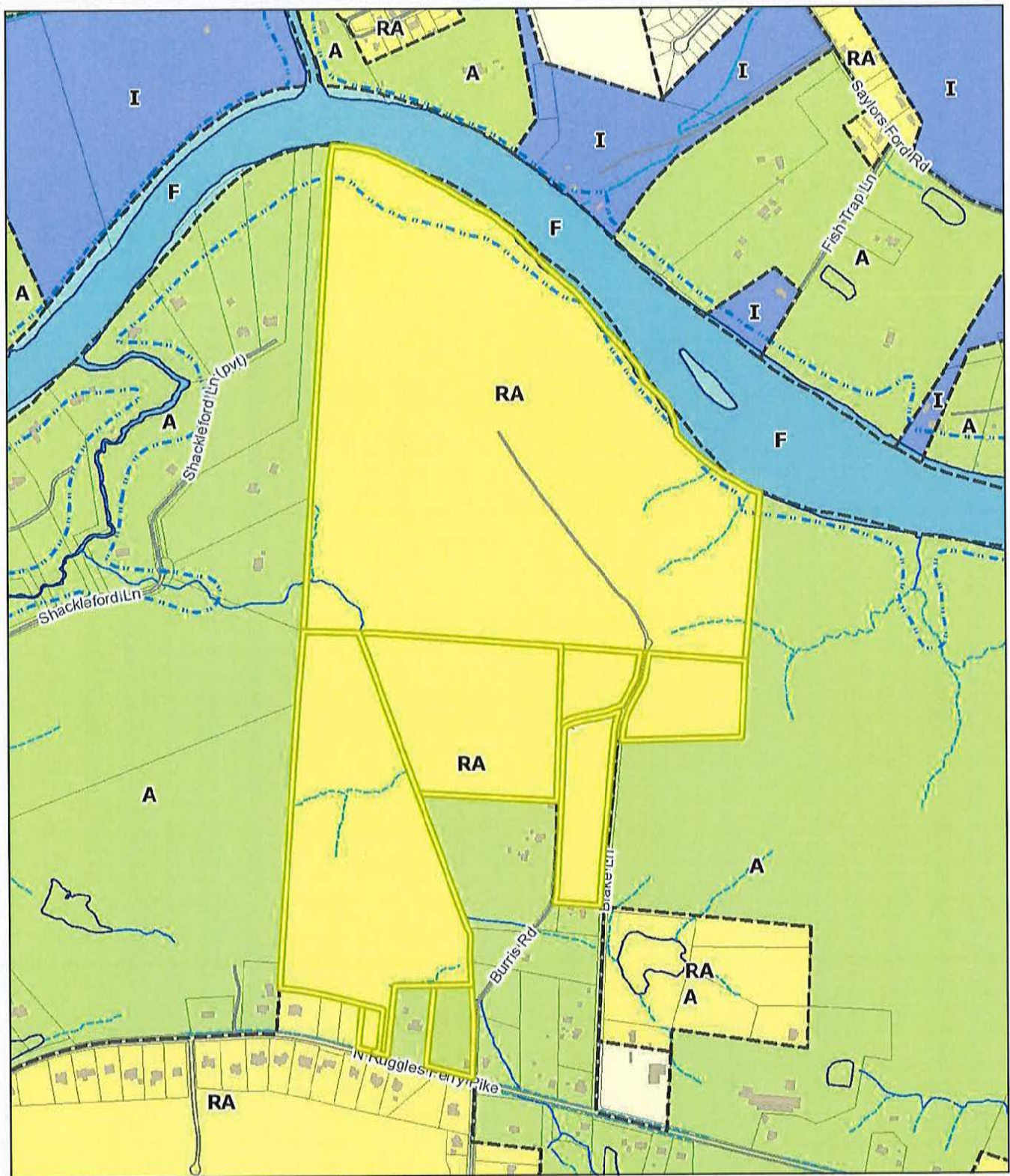
1/21/21



Sherry Muchenzi

1/21/2021



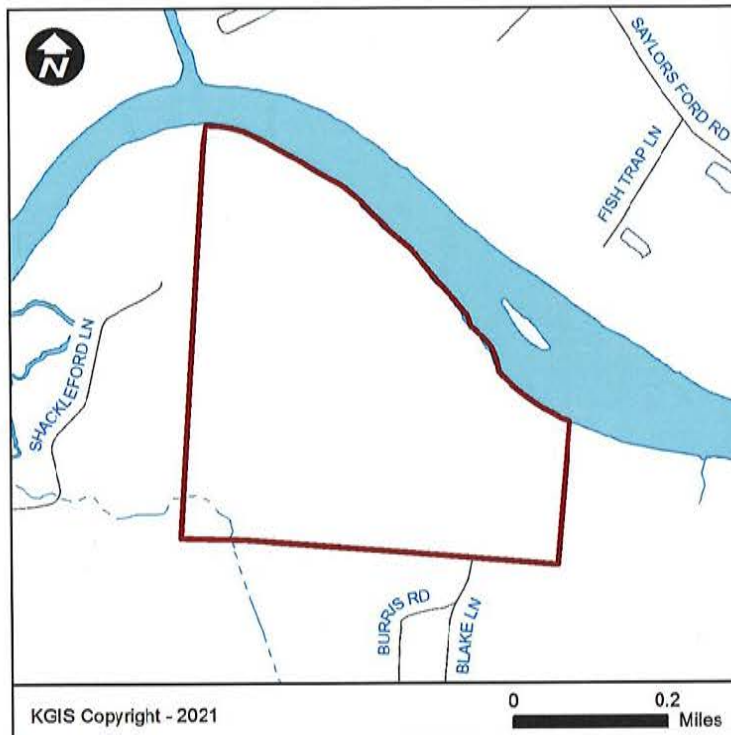


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**Parcel 052 02601 - Property Map and Details Report****Property Information**

Parcel ID: 052 02601  
 Location Address: 0 BLAKE LN  
 CLT Map: 52  
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 Condo Letter:  
 Parcel: 26.01  
 Parcel Type: NORMAL  
 District: S8  
 Ward:  
 City Block:  
 Subdivision: GREENBELT APP #A-467  
 Rec. Acreage: 0  
 Calc. Acreage: 122.90  
 Recorded Plat: -  
 Recorded Deed: 20120912 - 0016678  
 Deed Type: Deed:Gift Deed  
 Deed Date: 9/12/2012

**Address Information**

Site Address: 0 BLAKE LN  
 STRAWBERRY PLAINS - 37871  
 Address Type: UNUSED LAND  
 Site Name:  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**Jurisdiction Information**

County: KNOX COUNTY  
 City / Township:

**Political Districts**

Voting Precinct: 86  
 Voting Location: Carter Elementary School  
 8455 STRAWBERRY PLAINS PIKE  
 TN State House: 19 Dave Wright  
 TN State Senate: 6 Becky Duncan Massey  
 County Commission: 8 Richie Beeler  
 (at large seat 10) Larsen Jay  
 (at large seat 11) Justin Biggs  
 School Board: 8 Mike McMillan  
 Please contact Knox County Election Commission at (865) 215-2480 if you have questions.

**Owner Information**

THE FAMILY TRUST OF UNDER WILL OF ARTHUR A BLAKE  
 2302 FLENTWOOD DR  
 SARASOTA, FL 34238

The owner information shown in this section does **not** necessarily reflect the person(s) responsible for Last Year's property taxes. Report any errors to the Knox County Property Assessor's office at (865) 215-2365.

**Knoxville-Knox Co. Planning Information**

Census Tract: 53.01  
 Planning Sector: East County  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

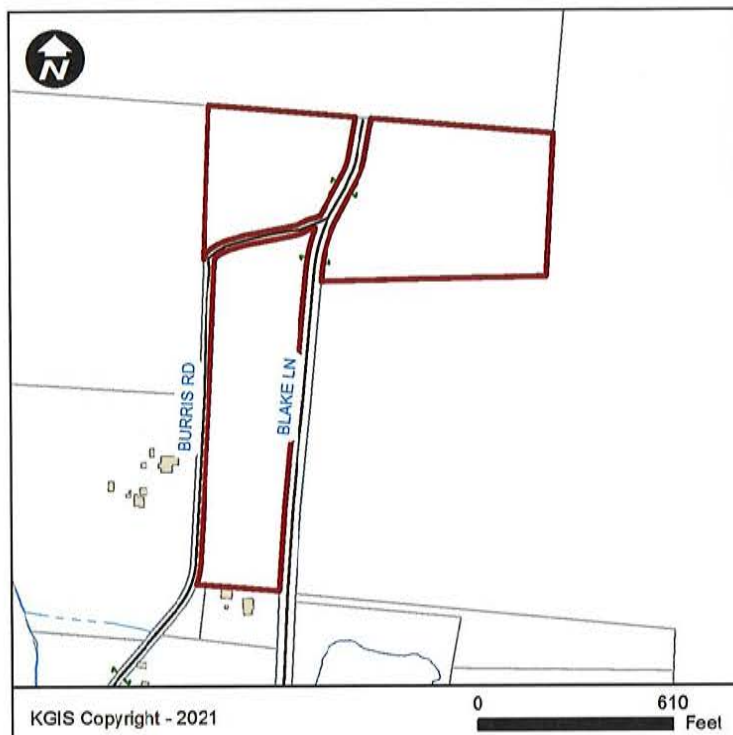
**School Zones**

Elementary: CARTER ELEMENTARY  
 Intermediate:  
 Middle: CARTER MIDDLE  
 High: CARTER HIGH

Please contact Knox County Schools Transportation and Zoning Department at (865) 594-1550 if you have questions.

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**Parcel 052 026 - Property Map and Details Report****Property Information**

Parcel ID: 052 026  
 Location Address: 908 BLAKE LN  
 CLT Map: 52  
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 Group:  
 Condo Letter:  
 Parcel: 26  
 Parcel Type: NORMAL DISJ  
 District: S8  
 Ward:  
 City Block:  
 Subdivision:  
 Rec. Acreage: 19.22  
 Calc. Acreage: 0  
 Recorded Plat: -  
 Recorded Deed: 567 - 570  
 Deed Type: Deed:Special Wa  
 Deed Date: 1/19/1932

**Address Information**

Site Address: 908 BLAKE LN  
 STRAWBERRY PLAINS - 37871  
 Address Type: DWELLING, SINGLE-FAMILY  
 Site Name:  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**Jurisdiction Information**

County: KNOX COUNTY  
 City / Township:

**Political Districts**

Voting Precinct: 86  
 Voting Location: Carter Elementary School  
 8455 STRAWBERRY  
 PLAINS PIKE  
 TN State House: 19 Dave Wright  
 TN State Senate: 6 Becky Duncan Massey  
 County Commission: 8 Richie Beeler  
 (at large seat 10) Larsen Jay  
 (at large seat 11) Justin Biggs  
 School Board: 8 Mike McMillan  
 Please contact Knox County Election Commission at (865) 215-2480 if you have questions.

**Owner Information**

BLAKE JESSIE MAE % SHIRLEY W BLAKE  
 2302 FLENTWOOD DR  
 SAROSOTA, FL 34238

The owner information shown in this section does **not** necessarily reflect the person(s) responsible for Last Year's property taxes. Report any errors to the Knox County Property Assessor's office at (865) 215-2365.

**Knoxville-Knox Co. Planning Information**

Census Tract: 53.01  
 Planning Sector: East County  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**School Zones**

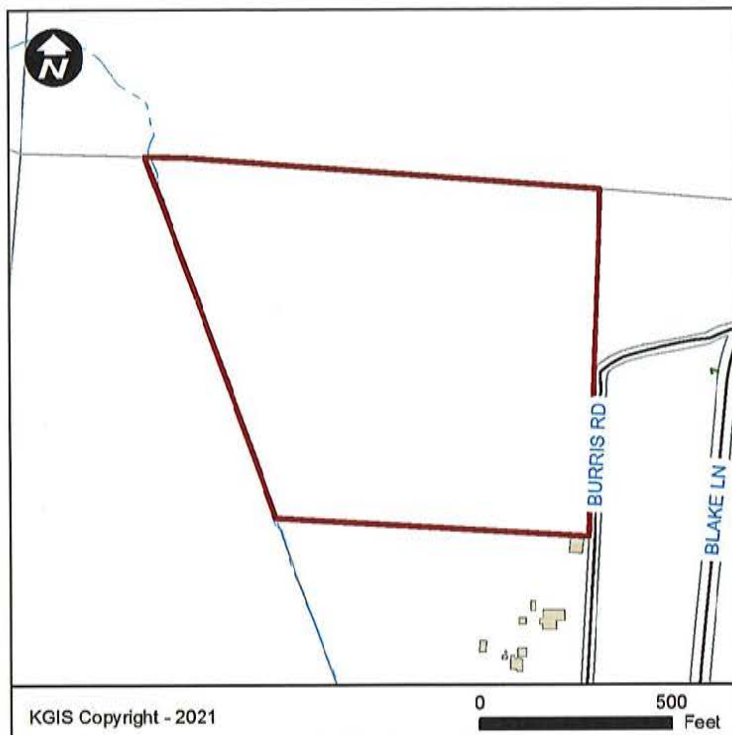
Elementary: CARTER ELEMENTARY  
 Intermediate:  
 Middle: CARTER MIDDLE  
 High: CARTER HIGH

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**Parcel 052 027 - Property Map and Details Report****Property Information**

|                   |                      |
|-------------------|----------------------|
| Parcel ID:        | 052 027              |
| Location Address: | 0 BURRIS RD          |
| CLT Map:          | 52                   |
| Insert:           |                      |
| Group:            |                      |
| Condo Letter:     |                      |
| Parcel:           | 27                   |
| Parcel Type:      | NORMAL               |
| District:         | S8                   |
| Ward:             |                      |
| City Block:       |                      |
| Subdivision:      | GREENBELT APP #A-469 |
| Rec. Acreage:     | 19                   |
| Calc. Acreage:    | 20.50                |
| Recorded Plat:    | -                    |
| Recorded Deed:    | 1198 - 459           |
| Deed Type:        | Deed:Special Wa      |
| Deed Date:        | 3/10/1962            |

**Address Information**

Site Address: 0 BURRIS RD  
STRAWBERRY PLAINS - 37871

Address Type: UNUSED LAND

Site Name:

Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**Jurisdiction Information**

County: KNOX COUNTY

City / Township:

**Political Districts**

Voting Precinct: 86

Voting Location: Carter Elementary School  
8455 STRAWBERRY PLAINS PIKE

TN State House: 19 Dave Wright

TN State Senate: 6 Becky Duncan Massey

County Commission: 8 Richie Beeler  
(at large seat 10) Larsen Jay  
(at large seat 11) Justin Biggs

School Board: 8 Mike McMillan

Please contact: Knoxville County Election Commission at (865) 215-2480 if you have questions.

**Owner Information**

BLAKE PAUL F & JESSIE MAE % SHIRLEY W BLAKE  
2302 FLENTWOOD DR  
SAROSOTA, FL 34238

The owner information shown in this section does **not** necessarily reflect the person(s) responsible for Last Year's property taxes. Report any errors to the Knoxville-Knox County Property Assessor's office at (865) 215-2365.

**Knoxville-Knox Co. Planning Information**

Census Tract: 53.01

Planning Sector: East County

Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**School Zones**

Elementary: CARTER ELEMENTARY

Intermediate:

Middle: CARTER MIDDLE

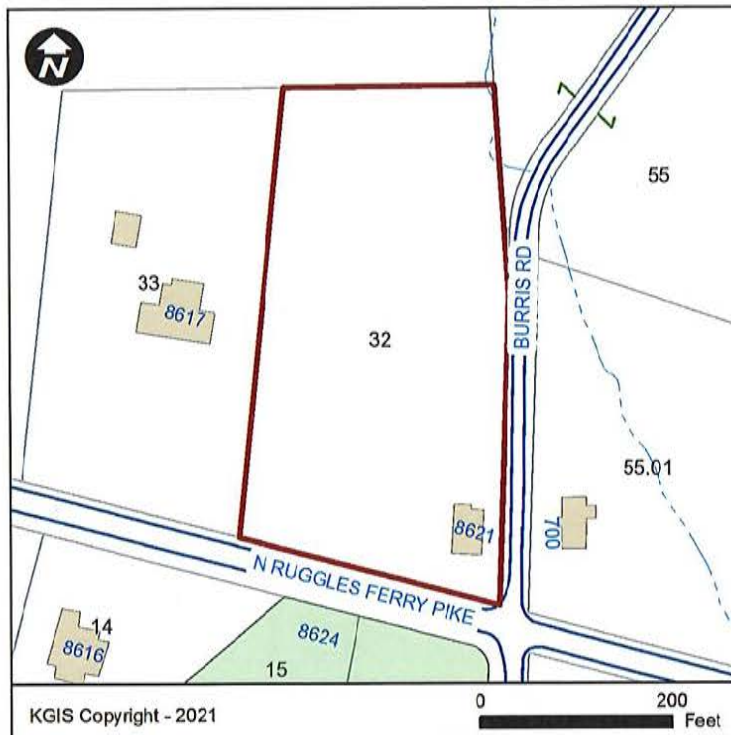
High: CARTER HIGH

Please contact Knoxville County Schools Transportation and Zoning Department at (865) 594-1550 if you have questions.

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**Parcel 052 032 - Property Map and Details Report****Property Information**

Parcel ID: 052 032  
 Location Address: 8621 N RUGGLES FERRY PIKE  
 CLT Map: 52  
 Insert:  
 Group:  
 Condo Letter:  
 Parcel: 32  
 Parcel Type: NORMAL  
 District: S8  
 Ward:  
 City Block:  
 Subdivision:  
 Rec. Acreage: 3  
 Calc. Acreage: 0  
 Recorded Plat: -  
 Recorded Deed: 1427 - 177  
 Deed Type: Deed:Special Wa  
 Deed Date: 4/16/1970

**Address Information**

Site Address: 8621 N RUGGLES FERRY PIKE  
 STRAWBERRY PLAINS - 37871  
 Address Type: DWELLING, SINGLE-FAMILY  
 Site Name:  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**Jurisdiction Information**

County: KNOX COUNTY  
 City / Township:

**Political Districts**

Voting Precinct: 76  
 Voting Location: Sunnyview School  
 412 BAGWELL RD  
 TN State House: 19 Dave Wright  
 TN State Senate: 6 Becky Duncan Massey  
 County Commission: 8 Richie Beeler  
 (at large seat 10) Larsen Jay  
 (at large seat 11) Justin Biggs  
 School Board: 8 Mike McMillan  
 Please contact Knox County Election Commission at (865) 215-2480 if you have questions.

**Owner Information**

VANCE HELEN E  
 8621 RUGGLES FERRY RD  
 STRAWBERRY PLAINS, TN 37871

The owner information shown in this section does **not** necessarily reflect the person(s) responsible for Last Year's property taxes. Report any errors to the Knox County Property Assessor's office at (865) 215-2365.

**Knoxville-Knox Co. Planning Information**

Census Tract: 53.01  
 Planning Sector: East County  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

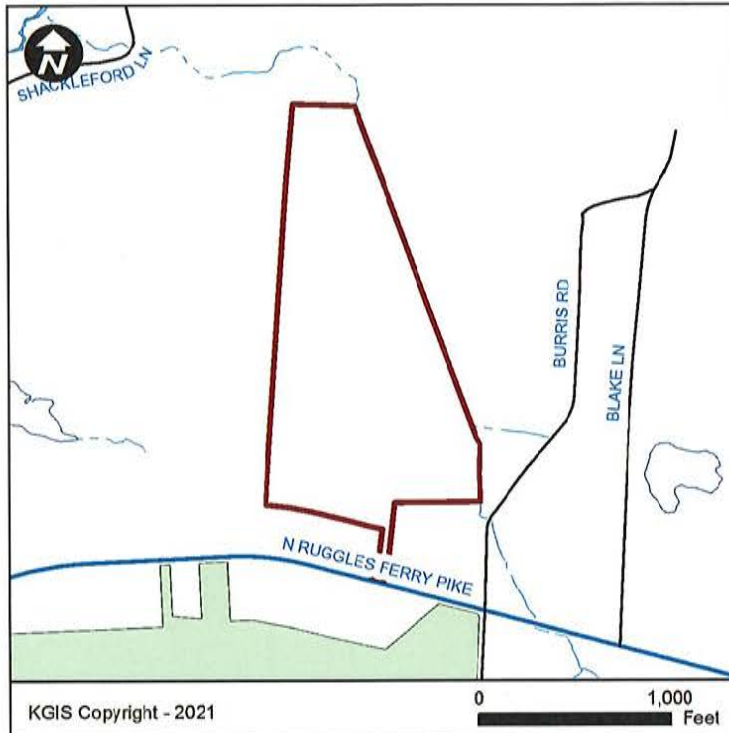
**School Zones**

Elementary: CARTER ELEMENTARY  
 Intermediate:  
 Middle: CARTER MIDDLE  
 High: CARTER HIGH

Please contact Knox County Schools Transportation and Zoning Department at (865) 594-1550 if you have questions.

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**Parcel 052 034 - Property Map and Details Report****Property Information**

Parcel ID: 052 034  
 Location Address: 0 N RUGGLES FERRY PIKE  
 CLT Map: 52  
 Insert:  
 Group:  
 Condo Letter:  
 Parcel: 34  
 Parcel Type: NORMAL  
 District: S8  
 Ward:  
 City Block:  
 Subdivision: GREENBELT APP #A-468  
 Rec. Acreage: 37.37  
 Calc. Acreage: 0  
 Recorded Plat: -  
 Recorded Deed: 635 - 155  
 Deed Type: Deed:Special Wa  
 Deed Date: 1/17/1942

**Address Information**

Site Address: 0 N RUGGLES FERRY PIKE  
 STRAWBERRY PLAINS - 37871  
 Address Type: UNUSED LAND  
 Site Name:  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**Jurisdiction Information**

County: KNOX COUNTY  
 City / Township:

**Political Districts**

Voting Precinct: 76  
 Voting Location: Sunnyview School  
 412 BAGWELL RD  
 TN State House: 19 Dave Wright  
 TN State Senate: 6 Becky Duncan Massey  
 County Commission: 8 Richie Beeler  
 (at large seat 10) Larsen Jay  
 (at large seat 11) Justin Biggs  
 School Board: 8 Mike McMillan  
 Please contact Knox County Election Commission at (865) 215-2480 if you have questions.

**Owner Information**

BLAKE PAUL F & JESSIE MAE % SHIRLEY W BLAKE  
 2302 FLENTWOOD DR  
 SAROSOTA, FL 34238  
 The owner information shown in this section does **not** necessarily reflect the person(s) responsible for Last Year's property taxes. Report any errors to the Knox County Property Assessor's office at (865) 215-2365.

**Knoxville-Knox Co. Planning Information**

Census Tract: 53.01  
 Planning Sector: East County  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**School Zones**

Elementary: CARTER ELEMENTARY  
 Intermediate:  
 Middle: CARTER MIDDLE  
 High: CARTER HIGH  
 Please contact Knox County Schools Transportation and Zoning Department at (865) 594-1550 if you have questions.

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**Parcel 052NB001 - Property Map and Details Report****Property Information**

Parcel ID: 052NB001  
 Location Address: 8605 N RUGGLES FERRY PIKE  
 CLT Map: 52  
 Insert: N  
 Group: B  
 Condo Letter:  
 Parcel: 1  
 Parcel Type: NORMAL  
 District: S8  
 Ward:  
 City Block:  
 Subdivision: LIVONA ACRES UNIT 1  
 Rec. Acreage: 0  
 Calc. Acreage:  
 Recorded Plat: -  
 Recorded Deed: 20201218 - 0049818  
 Deed Type: Deed:Full Coven  
 Deed Date: 12/18/2020

**Address Information**

Site Address: 8605 N RUGGLES FERRY PIKE  
 STRAWBERRY PLAINS - 37871  
 Address Type: DWELLING, SINGLE-FAMILY  
 Site Name: LIVONA ACRES  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**Jurisdiction Information**

County: KNOX COUNTY  
 City / Township:

**Political Districts**

Voting Precinct: 76  
 Voting Location: Sunnyview School  
 412 BAGWELL RD  
 TN State House: 19 Dave Wright  
 TN State Senate: 6 Becky Duncan Massey  
 County Commission: 8 Richie Beeler  
 (at large seat 10) Larsen Jay  
 (at large seat 11) Justin Biggs  
 School Board: 8 Mike McMillan  
 Please contact Knox County Election Commission at (865) 215-2480 if you have questions.

**Owner Information**

LIVONA ACRES LLC  
 770 GREENGABLE LN  
 POWELL, TN 37849

The owner information shown in this section does **not** necessarily reflect the person(s) responsible for Last Year's property taxes. Report any errors to the Knox County Property Assessor's office at (865) 215-2365.

**Knoxville-Knox Co. Planning Information**

Census Tract: 53.01  
 Planning Sector: East County  
 Please contact Knoxville-Knox County Planning at (865) 215-2500 if you have questions.

**School Zones**

Elementary: CARTER ELEMENTARY  
 Intermediate:  
 Middle: CARTER MIDDLE  
 High: CARTER HIGH

Please contact Knox County Schools Transportation and Zoning Department at (865) 594-1550 if you have questions.

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