



# SUBDIVISION REPORT - CONCEPT/USE ON REVIEW

▶ **FILE #:** 12-SD-20-C  
12-F-20-UR

**AGENDA ITEM #:** 18  
**AGENDA DATE:** 12/10/2020

▶ **SUBDIVISION:** EMORY GREEN SUBDIVISION (FKA HATMAKER SUBDIVISION)  
▶ **APPLICANT/DEVELOPER:** BALL HOMES, LLC  
**OWNER(S):** Charles L. Hatmaker

**TAX IDENTIFICATION:** 77 083 (PART OF) [View map on KGIS](#)

**JURISDICTION:** County Commission District 6

**STREET ADDRESS:** 8935 W. Emory Rd.

▶ **LOCATION:** Southwest side of W. Emory Rd., North of Karns Valley Dr.

**SECTOR PLAN:** Northwest County

**GROWTH POLICY PLAN:** Planned Growth Area

**WATERSHED:** Beaver Creek

▶ **APPROXIMATE ACREAGE:**

▶ **ZONING:** PR (Planned Residential)

▶ **EXISTING LAND USE:** Agricultural

▶ **PROPOSED USE:** Detached and attached residential subdivision

**SURROUNDING LAND USE AND ZONING:** The area along the improved Karns Valley Drive is comprised of a mix of single family and multi-family residential. The rest of the surrounding area is primarily large lot agricultural zoned properties and low density residential zoning.

▶ **NUMBER OF LOTS:** 112

**SURVEYOR/ENGINEER:** William C., Jr. Fulghum

**ACCESSIBILITY:** Access is via W. Emory Road, a minor collector street with 21 feet of pavement width within 50 - 64 feet of right-of-way.

▶ **SUBDIVISION VARIANCES REQUIRED:**

## STAFF RECOMMENDATION:

▶ **APPROVE the Concept Plan subject to 11 conditions.**

1. Connection to sanitary sewer and meeting any other relevant requirements of the utility provider.
2. Provision of street names which are consistent with the Uniform Street Naming and Addressing System within Knox County (County Ord. 91-1-102).
3. Implementing the recommendations of the Hatmaker Subdivision Transportation Impact Study (Fulghum MacIndoe, 10/26/2020), as revised and approved by Planning Commission staff and Knox County Engineering and Public Works (see Exhibit A).
4. Providing a 25' common area strip between the W. Emory Road and lots 31-33, in accordance with section

3.02.A.4 (Double Frontage Lots) of the Knoxville-Knox County Subdivision Regulations, and as shown on the Concept Plan.

5. Providing a minimum 10' landscape buffer between the private driveway and parking spaces and W. Emory Road for the condominiums along the eastern boundary of the site.

6. Certifying that the required sight distance is available at all access points with documentation provided to Knox County Engineering and Public Works for review and approval during the design plan phase.

7. Reforesting the disturbed areas as proposed on sheet C2.

8. Meeting all applicable requirements of Knox County Engineering and Public Works.

9. Meeting all applicable requirements of the Knox County Zoning Ordinance.

10. Submitting to Planning staff prior to final plat review by the Planning Commission or Planning staff, the certification of design plan approval form as required by the Knoxville-Knox County Subdivision Regulations.

11. Prior to certification of the final plat for the subdivision, establishing a property owners association that will be responsible for the maintenance of the common areas, drainage system, and any recreational amenities.

► **APPROVE the development plan for up to 55 detached residential lots and 58 residential condominiums, and a reduction of the peripheral setback from 35 feet to 20 feet for Old Cobb Ferry Road frontage and 15 feet for the W. Emory Road frontage west of the Road 'A' intersection, as shown, subject to 1 condition.**

1) Meeting all applicable requirements of the Knox County Zoning Ordinance.

With the conditions noted, this plan meets the requirements for approval in the PR district and the other criteria for approval of a use on review.

**COMMENTS:**

This proposal is for a residential development with 55 lots for detached houses and 58 condominium units. There will be a total of 113 dwellings on the 28.06-acre site at a density of 4.03 du/ac. The property was recently rezoned PR up to 5 du/ac (8-A-20-RZ). There are approximately 11.3 acres of common area which includes the area where the condominiums are located but exclude the buildings and pavement. There is an amenity field proposed on the western portion of the property in the TVA powerline easement. This area is shown as a graded area that can be used for various activities.

The Hatmaker Subdivision Transportation Impact Study (Fulghum MacIndoe, 10/26/2020) was prepared to address the impact of the proposed development on W. Emory Road (see Exhibit A). There were no recommended improvements to the external street system.

**EFFECT OF THE PROPOSAL ON THE SUBJECT PROPERTY, SURROUNDING PROPERTY AND THE COMMUNITY AS A WHOLE**

1) Utilities are available to service the site.

2) The proposed low density residential development is compatible with the scale and intensity of recent development that has occurred in this area.

**CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOX COUNTY ZONING ORDINANCE**

1) With the stated conditions, the proposal meets the standards for development within a PR (Planned Residential) Zone, the zoning conditions, and all other requirements of the Zoning Ordinance.

2) The proposed subdivision is consistent with the general standards for uses permitted on review: The proposed development is consistent with the adopted plans and policies of the General Plan and Sector Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. The use is compatible with the character of the neighborhood where it is proposed. The use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas.

**CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS**

1) The Northwest County Sector Plan designates this property for low density residential use with a maximum density of 5 du/ac. At a proposed density of 4.03 du/ac, the proposed development is consistent with the Sector Plan and the zoning on the property.

2) The site is located within the Planned Growth Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.

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.

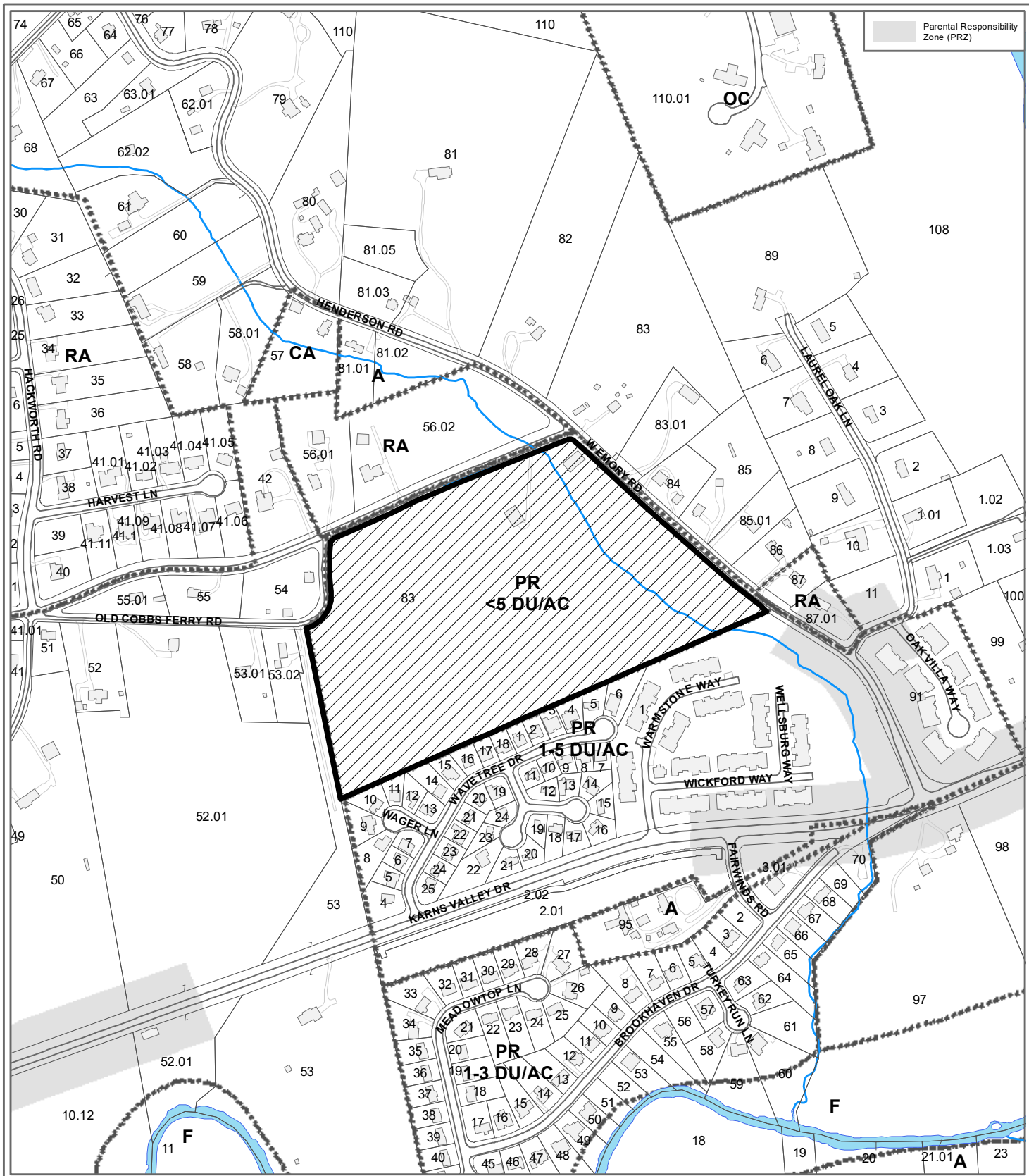
ESTIMATED STUDENT YIELD: 27 (public school children, grades K-12)

Schools affected by this proposal: Karns Elementary, Karns Middle, and Karns 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 concept plan request is final, unless the action is appealed to Knox County Chancery Court. The date of the Knox County Chancery Court hearing will depend on when the appeal application is filed.

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



**12-SD-20-C / 12-F-20-UR  
CONCEPT PLAN/USE ON REVIEW**

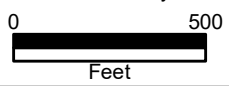


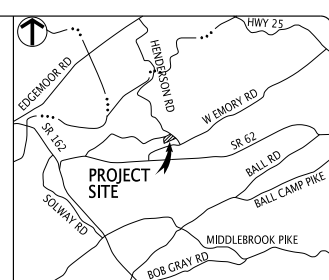
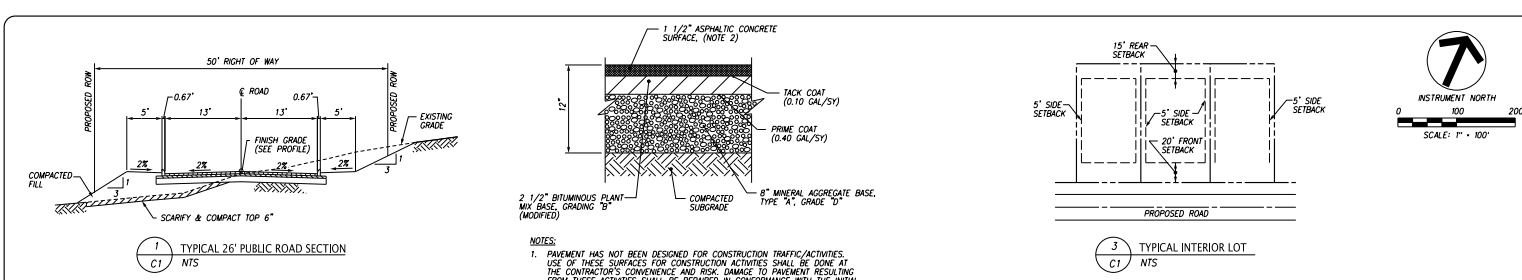
Detached and attached residential subdivision in PR (Planned Residential)

Petitioner: Ball Homes, LLC  
Hatmaker Subdivision

Map No: 77  
Jurisdiction: County

Original Print Date: 11/6/2020      Revised:  
Knoxville - Knoxville Planning Commission \* City / County Building \* Knoxville, TN 37902





**FULGHUM MACINDOE ASSOCIATES, INC.**  
 10330 HARDEN VALLEY ROAD SUITE 200  
 KNOXVILLE, TN 37932  
 OFFICE: 865.690.6419  
 FAX: 865.690.6418  
 www.fulghummacindoe.com

**PRELIMINARY NOT FOR CONSTRUCTION**

**12-SD-20-C / 12-F-20-UR**  
**11/23/2020**

- GENERAL NOTES:**
- THE BOUNDARY DATA WAS TAKEN FROM LYNCH SURVEYS LLC DATED AUGUST 27, 2020.
  - PROPERTY CONCERNED REFLECTS PARCELS 077 083 AS SHOWN IN KNOX COUNTY C11 MAP 77. ZONING FOR THE PROPERTY IS PK. PLANNED RESIDENTIAL. TOTAL PARCEL AREA = 36.41± AC. TOTAL AREA ZONED PK = 328.06 AC.
  - BUILDING SETBACKS ARE 20'-FT. IN FRONT, 5'-FT. ON SIDE, AND 15'-FT. IN REAR. THE PERIPHERAL SETBACK IS 35'-FT., 15'-FT. PERIPHERAL SETBACK IS REQUESTED FOR 130 FT (20%) ALONG THE W. EMORY ROAD BOUNDARY. 20'-FT PERIPHERAL SETBACK IS REQUESTED FOR FRONTAGE ALONG OLD COBBERS FERRY ROAD.
  - ACCESS TO LOTS IS RESTRICTED TO INTERNAL STREETS.
  - 10' UTILITY & DRAINAGE EASEMENT INSIDE ROAD FRONTAGE AND S/D PERIMETER LOT LINES. 5' EACH SIDE OF ALL INTERIOR LOT LINES.
  - PROPOSED IMPROVEMENTS INCLUDE: 26' WIDE PUBLIC ROAD, EXTRUDED CURB, STORM SEWER, SANITARY SEWER, WATER, ELECTRIC, TELEPHONE, AND CABLE TV.
  - PLANNING COMMISSION CASE NUMBER: 12-SD-20-C/12-F-20-UR.

**PROPOSED DENSITY**

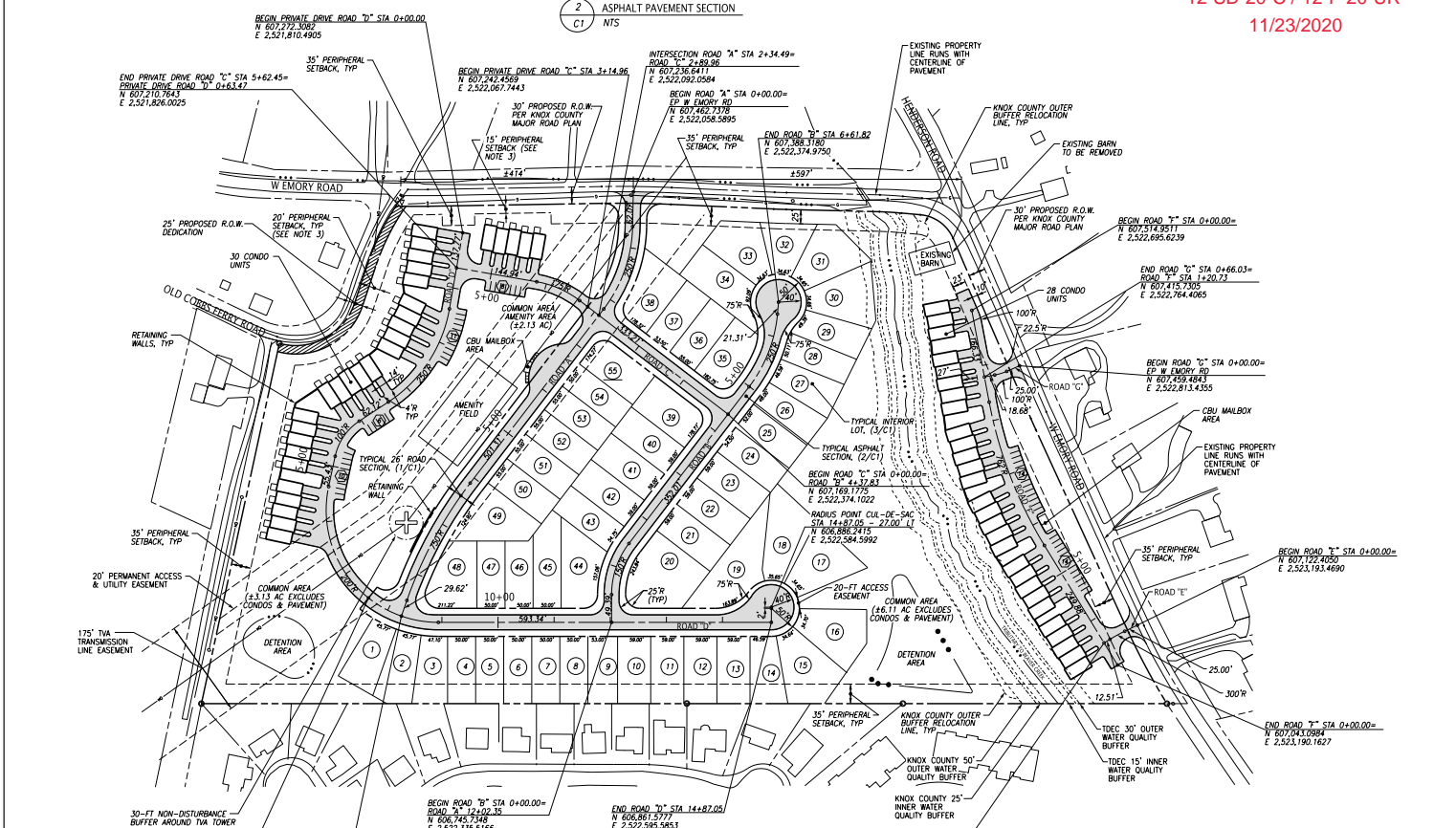
PARCEL ZONED PER ALLOWED DENSITY	5 DU/AC
PROPERTY ZONED PER AREA	28.06 AC
SINGLE FAMILY DWELLING UNITS	55 UNITS
CONDOMINIUM DWELLING UNITS	58 UNITS
TOTAL DWELLING UNITS	113 UNITS
PROPOSED DENSITY	4.03 DU/AC

**PARKING SUMMARY - WEST**

REQUIRED PARKING FOR RESIDENTIAL	30 DWELLINGS @ 2 PARKING SPACES PER DWELLING UNIT	60
TOTAL PARKING PROVIDED	GARAGE SPACES	30
	STANDARD SPACES (9'x12.5')	30
	TOTAL	60 SPACES

**PARKING SUMMARY - EAST**

REQUIRED PARKING FOR RESIDENTIAL	28 DWELLINGS @ 2 PARKING SPACES PER DWELLING UNIT	56
TOTAL PARKING PROVIDED	GARAGE SPACES	28
	STANDARD SPACES (9'x12.5')	28
	TOTAL	56 SPACES



**ENGINEERING CERTIFICATION:**

I HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER, LICENSED TO PRACTICE ENGINEERING UNDER THE LAWS OF THE STATE OF TENNESSEE. I FURTHER CERTIFY THAT THE PLAN AND ACCOMPANYING DRAWINGS, DOCUMENTS, AND STATEMENTS CONFORM TO ALL APPLICABLE PROVISIONS OF THE KNOXVILLE-KNOX COUNTY SUBDIVISION REGULATIONS EXCEPT AS HAS BEEN ITEMIZED AND DESCRIBED IN A REPORT FILED WITH THE METROPOLITAN PLANNING COMMISSION.

REGISTERED ENGINEER: **WILLIAM C. FULGHUM, JR., P.E.**  
 TENNESSEE CERTIFICATE NO. 0100940

**UTILITY OWNERS:**

<b>WATER &amp; SEWER</b>	<b>GAS</b>
WEST KNOX UTILITY DISTRICT (WKUD) P.O. BOX 51370 KNOXVILLE, TN 37950-1370 CONTACT: MR. WAYNE HASTINGS OFFICE PHONE: 865.690.2521	KNOXVILLE UTILITIES BOARD (KUB) KNOXVILLE, TN 37923 KNOXVILLE, TN 37950-9017 CONTACT: MR. CHRIS MCCORMACK OFFICE PHONE: 865.558.2123
<b>ELECTRIC</b>	<b>TELEPHONE</b>
LENOIR CITY UTILITY BOARD (LCUB) P.O. BOX 449 LENOIR CITY, TN 37771 CONTACT: MR. MITCH LEBETTER OFFICE PHONE: 865.988.0707	AT&T 9733 PARKSIDE DRIVE KNOXVILLE, TN 37923 CONTACT: MS. VICKIE DALEY OFFICE PHONE: 865.539.8571

**LEGEND:**

	PROPOSED ASPHALT PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	PROPOSED LOT NUMBER
	PROPOSED PROPERTY/ROW LINE
	EXISTING PROPERTY LINE
	PROPOSED ROAD CENTER LINE

**EMORY GREEN SUBDIVISION**  
 8935 W EMORY ROAD  
 KNOXVILLE, TENNESSEE 37931

**BALL HOMES, LLC**  
 6305 WALKER BLVD  
 LEICESTER, KY 40341  
 CONTACT: MRS. D. RAY BALL, JR.  
 TELEPHONE NO.: 855.268.1191

**CONCEPT PLAN**

NO.	DATE	REVISION/ISSUE
1	1/23/20	ISSUED FOR REVIEW
2	10/26/20	REVISION/ISSUE

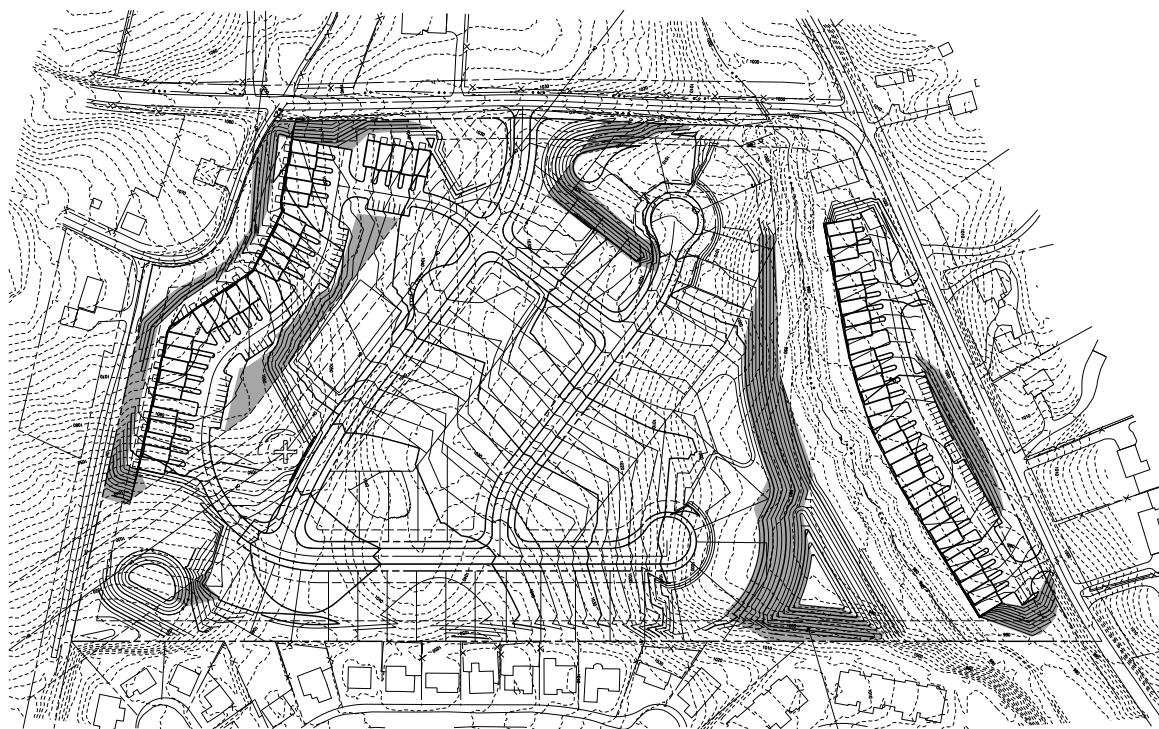
Project: **592.009**  
 Date: **10/26/20**  
 Scale: **1" = 100'**

**C1**

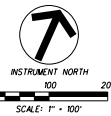
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 Plot Date: 11/23/2020

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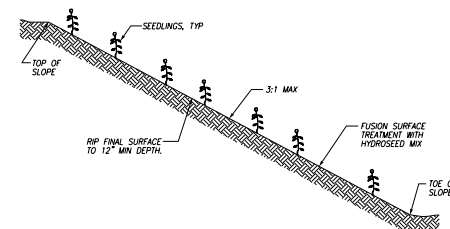


REFORESTATION  
 TIP: (1/C2)



**GENERAL NOTES:**

1. TOPOGRAPHIC DATA WAS TAKEN FROM KGIS.
2. PLANNING COMMISSION CASE NUMBER: 12-SD-20-C/12-F-20-UR.



**NOTES:**


1. SEEDLINGS SHALL BE A MIX OF AT LEAST 6 OF THE FOLLOWING SPECIES: AMERICAN PLUM, BLACKGUM, NORTHERN RED OAK, TULIP POPLAR, RED MAPLE, REDBUD, SCARLET OAK, SWEETGUM, SYCAMORE AND WHITE OAK. INSTALL ON 12' X 12' GRID OR 300 PER ACRE. PLANTING DATES RANGE FROM DECEMBER TO MID-APRIL.
2. HYDROSEED SLOPE WITH ERNST NC MOUNTAIN UR1 MEADOW MIX (ERNA1 303). APPLY 20 LBS./AC. ADD FERTILIZER TO THE HYDROSEED MIX. USE 19-19-19 AND APPLIED AT A RATE OF 400 LBS./AC. ADD ANNUAL COVER CROP TO THE HYDROSEED MIX AS FOLLOWS: OATS (JANUARY TO FEBRUARY) APPLIED AT 20 LBS./AC; BROWDER WHEAT (MARCH TO AUGUST) APPLIED AT 10 LBS./AC; WINTER RYE GRASS (SEPTEMBER TO DECEMBER) APPLIED AT 30 LBS./AC.
3. APPLY FUSION SURFACE TREATMENT (EEN-HILL CONSTRUCTION MATERIALS) AT A RATE OF 4,500 LBS./AC ALONG WITH THE HYDROSEED MIX. OBTAIN A SOIL SAMPLE TO CONFIRM THE APPLICATION RATE. INSTALL PER THE MANUFACTURER'S RECOMMENDATIONS.
4. PROTECT FINISHED SLOPE FROM BEING DISTURBED.

**1** REFORESTATION  
**C2** NTS

12-SD-20-C / 12-F-20-UR  
 11/23/2020

**LEGEND:**

- PROPOSED REFORESTATION
- PROPOSED PROPERTY/ROW LINE
- 890 PROPOSED CONTOUR
- 920 EXISTING CONTOUR

 FULGHUM MACINDOE & ASSOCIATES, INC. 10330 HARDEN VALLEY ROAD SUITE 201 KNOXVILLE, TN 37932 OFFICE: 865.690.6419 FAX: 865.690.6448 www.fulghummacindoe.com	
PRELIMINARY NOT FOR CONSTRUCTION	
EMORY GREEN SUBDIVISION 8935 W EMORY ROAD KNOXVILLE, TENNESSEE 37931	
BALL HOMES, LLC 6305 WALKER DRIVE LEASING ONLY CONTACT: MR. D. RAY BALL, JR. TELEPHONE NO.: 855.688.1191	
CONCEPT GRADING PLAN	
PROJECT NO.: 592.009 DATE: 10/26/20 SCALE: 1" = 100' PROJECT: 592.009 SHEET: C2	DRAWN BY: HNU CHECKED BY: CMC REVISIONS: NO.   REVISION/ISSUE   DATE 1   REVISED PER MFC COMMENTS   11/23/20 2   ISSUED FOR REVIEW   10/26/20

TYPE 'H' TOWNHOMES



12-SD-20-C / 12-F-20-UR  
11/23/2020

**TYPE 'G' TOWNHOMES**



12-SD-20-C / 12-F-20-UR  
 11/23/2020



**EXHIBIT A**

**HATMAKER SUBDIVISION**  
**Transportation Impact Analysis**  
**W Emory Road**  
**Knoxville, TN**

**A Transportation Impact Analysis for the Hatmaker Subdivision**

Submitted to

**Knoxville – Knox County Planning Commission**

October 26, 2020  
FMA Project No. 592.009

Submitted By:



**12-SD-20-C**  
**12-F-20-UR**  
**10/26/2020**

# EXHIBIT A

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## ATTACHMENTS

1	AERIAL PHOTO
2	TRAFFIC COUNTS
3	ADT TRENDS
4	TRIP GENERATION
5	INTERSECTION WORKSHEETS – EXISTING AM/PM PEAKS
6	INTERSECTION WORKSHEETS – BACKGROUND AM/PM PEAKS
7	INTERSECTION WORKSHEETS – FULL BUILDOUT AM/PM PEAKS
8	TURN LANE WARRANT ANALYSIS

## Executive Summary

---

Ball Homes, LLC is proposing a residential development (i.e. Hatmaker Subdivision) with single-family housing located in Knox County. The project is located at the intersection of W Emory Road at Henderson Road. The full build out of the development will consist of 54 single family lots and 58 townhomes for a total of 112 units. Construction is proposed to take place this year and this study assumes full build out for the development will occur in 2023.

There are three proposed driveway connections to W Emory Road. The main driveway connection will be located west of the intersection of W Emory Road at Henderson Road. The townhomes located south of the intersection of W Emory Road at Henderson Road will have two driveway connections to W Emory Road.

In order to maintain or provide an acceptable level-of-service for each of the intersections studied, some recommendations are presented.

### **W Emory Road at Henderson Road**

The full buildout traffic conditions for the eastbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hours and the southbound approach (Henderson Road) operates at a LOS B during both the AM and PM peak hours.

### **W Emory Road at Driveway Connections**

At the intersection of W Emory Road at the main driveway connection the westbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hour and the northbound approach (driveway) operates at a LOS A during both the AM and PM peak hours after the completion of the Hatmaker Subdivision.

Neither an eastbound right turn lane nor a westbound left turn lane are warranted at the intersection of W Emory Road at the main driveway connection.

## 1 Introduction

---

### 1.1 Project Description

This report provides a summary of a traffic impact study that was performed for the Hatmaker Subdivision. The project is located at the intersection of W Emory Road at Henderson Road north of Oak Ridge Highway (SR 62) in Knox County, Tennessee. The location of the site is shown in Figure 1.

The full build out of the development will consist of 54 single family lots and 58 townhomes for a total of 112 units. Construction is proposed to take place this year, and this study assumes full build out for the development will occur in 2023.

There are three proposed driveway connections to W Emory Road. The main driveway connection will be located 555 feet west of the intersection of W Emory Road at Henderson Road and approximately 425 feet east of the intersection of Old Cobbs Ferry Road. The townhomes located along W Emory Road will have two driveway connections to W Emory Road. The first driveway connection will be located 315 feet south of the intersection of W Emory Road and the second driveway connection will be located 510 feet south of the first driveway connection. The proposed site layout is shown in Figure 2.

The purpose of this study is to evaluate the impacts to the traffic conditions caused by the proposed development.

# EXHIBIT A

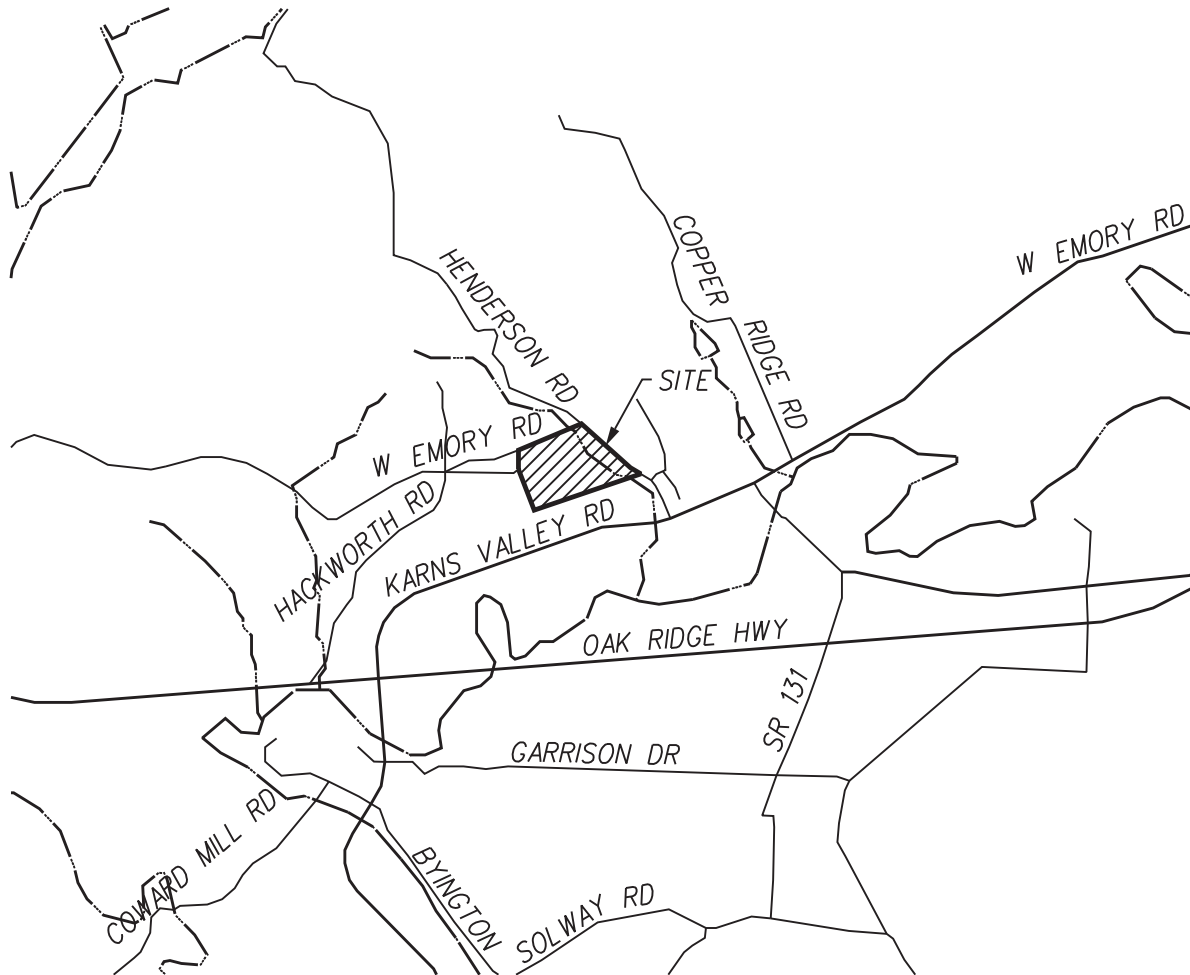


Figure 1: Location Map

# EXHIBIT A

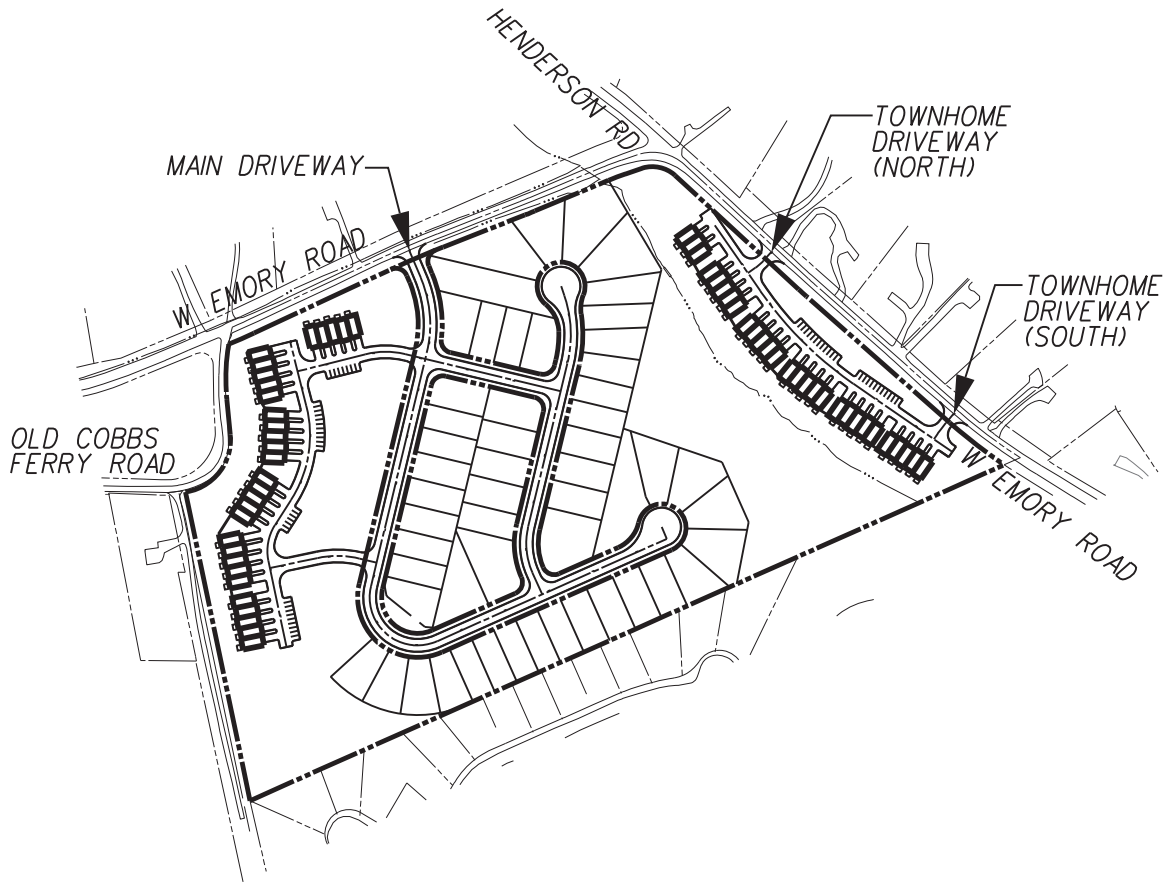


Figure 2: Site Plan



# EXHIBIT A

## 1.2 Existing Site Conditions

W Emory Road is a two-lane road at the intersection with Henderson Road. Knoxville-Knox County Planning classifies W Emory Road between Oak Ridge Highway (SR 62) and Karns Valley Road as a Minor Collector with a 60 foot right-of-way. The posted speed limit on W Emory Road is 30 mph.

Henderson Road is a two-lane road at the intersection with W Emory Road. Knoxville-Knox County Planning classifies Henderson Road between W Emory Road and the Anderson County line as a Minor Collector with a 60 foot right-of-way. The posted speed limit on Henderson Road is 30 mph.

There are no existing sidewalks or designated bike lanes along W Emory Road or Henderson Road in the vicinity of the proposed development.

An aerial photo of the existing intersection is included in Attachment 1.

## 2 Existing Traffic Volumes

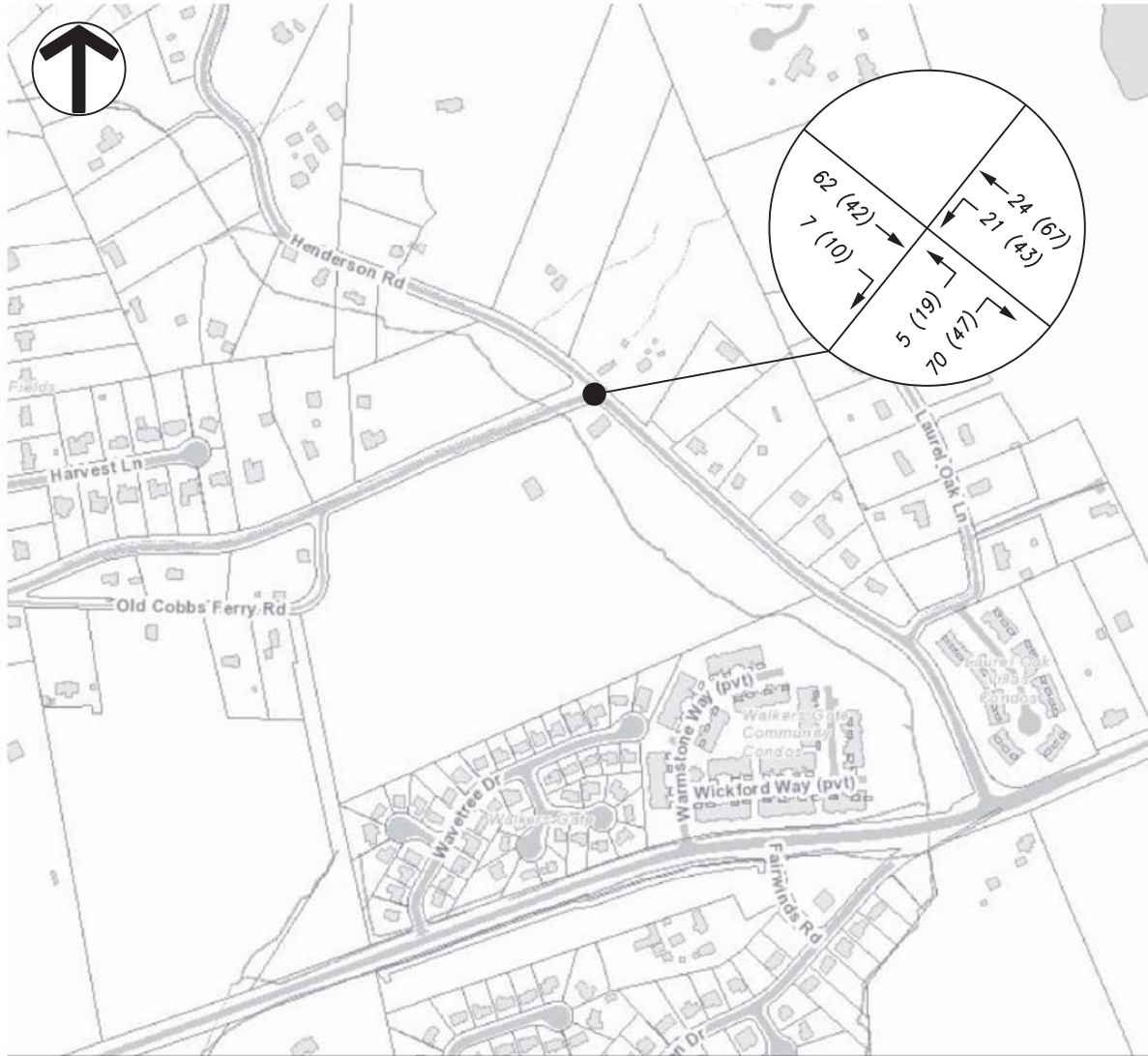
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FMA conducted a turning movement count at the intersection of W Emory Road at Henderson Road on Thursday September 10, 2020.

The current AM peak hour and PM peak hour were determined using the turning movement count that FMA conducted. At the intersection of W Emory Road at Henderson Road the AM peak hour occurred between 7:15 a.m. and 8:15 a.m., and the PM peak hour occurred between 5:15 p.m. and 6:15 p.m.

The existing volumes including the AM and PM peak hour traffic volumes at the count locations are shown in Figure 3, and the count data collected is included in Attachment 2.

# EXHIBIT A



**LEGEND:**

← 5 (16)      TURNING MOVEMENT VOLUME AM (PM)

Figure 3: 2020 Existing Peak Hour Traffic

### **3 Background Growth**

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The Tennessee Department of Transportation (TDOT) maintains count stations in the vicinity of the proposed development.

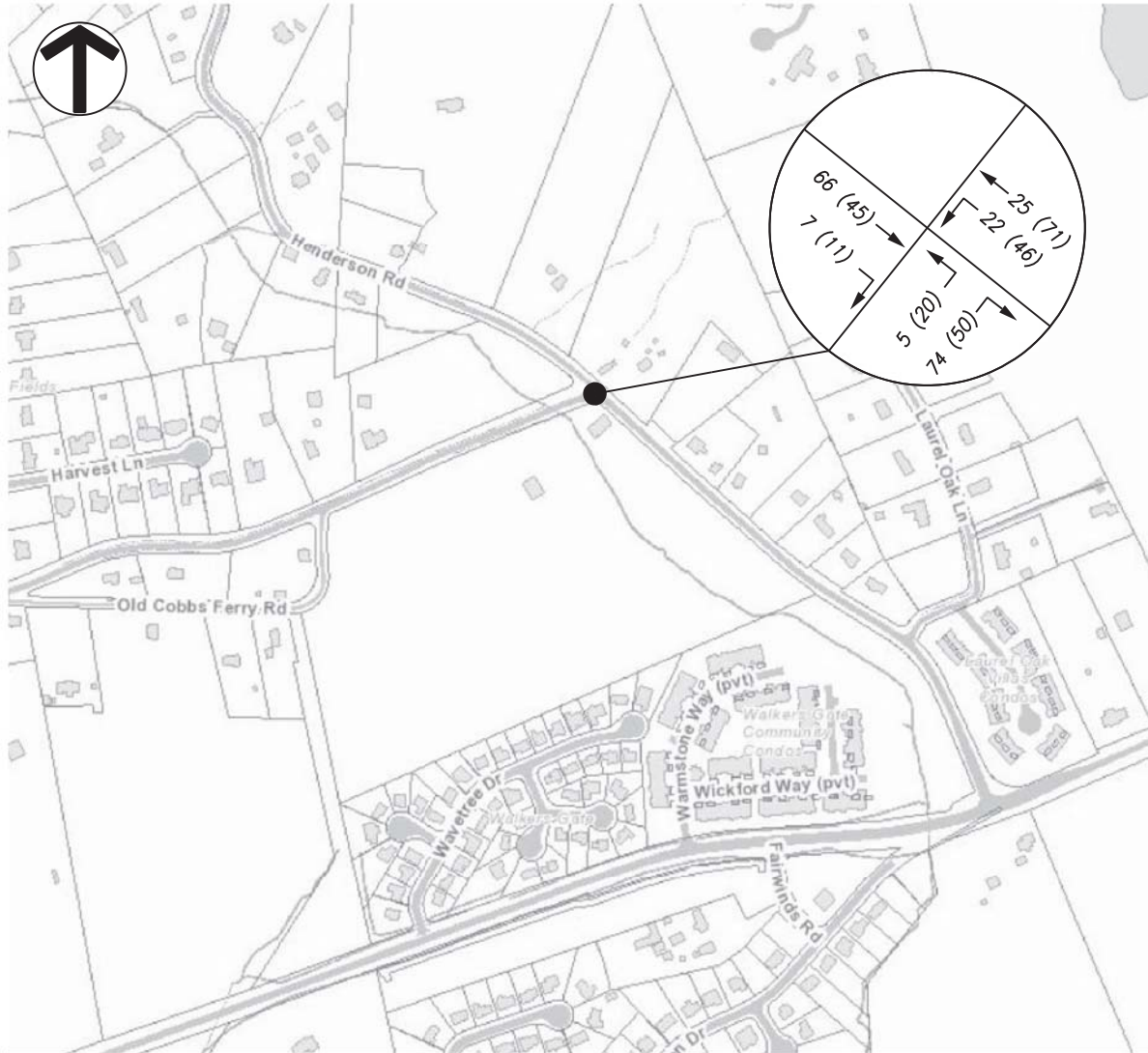
TDOT count station ID: 000178 is located on Henderson Road at the Anderson County line. The annual growth rate for this station over the last ten years is approximately 0.87% and the 2019 ADT was 1,129 vehicles per day.

TDOT count station ID: 000468 is located on Karns Valley Drive west of the intersection of W Emory Road and north of Oak Ridge Highway (SR 62). The annual growth rate for this station over the last eight years is approximately 4.82% and the 2018 ADT was 4,894 vehicles per day.

For the purpose of this study, an annual growth rate of 2.0% was assumed for the traffic at the intersection of W Emory Road at Henderson Road until full occupancy is reached in 2023. Attachment 3 shows the trend line growth charts for the TDOT count stations.

Figure 4 demonstrates the projected background peak hour volumes at the intersection of W Emory Road at Henderson Road after applying the background growth rate to the existing conditions.

# EXHIBIT A



### LEGEND:

← 5 (16)

TURNING MOVEMENT VOLUME AM (PM)

Figure 4: 2023 Background Peak Hour Traffic

**4 Trip Generation and Trip Distribution**

The Hatmaker Subdivision proposes 54 single family lots and 58 townhomes for a total of 112 units. Single-Family Detached Housing or Land Use 210 was used to calculate site trips for the subdivision using the fitted curve equations from the *Trip Generation, 10<sup>th</sup> Edition*, published by the Institute of Transportation Engineers.

The Knoxville-Knox County Planning Commission published a memorandum (“Local Trip Generation Rates for Multi-Family Residential Uses”, August 14, 2000) for the purpose of providing locally collected data for all multi-family residential developments. The fitted curve equations from the local study were used to calculate site trips for the 58 townhomes. The land use worksheets are included in Attachment 4.

The total trips generated by the full buildout of the Hatmaker Subdivision was estimated to be 1,175 daily trips. The estimated trips are 75 trips during the AM peak hour and 105 trips during the PM peak hour. A trip generation summary is shown in Table 4-1.

**Table 4-1  
Hatmaker Subdivision  
Trip Generation Summary**

Land Use	Density	Daily Trips	AM Peak Hour		PM Peak Hour	
			Enter	Exit	Enter	Exit
Single-Family Detached Housing (Land Use 210)	54 lots	590	11	32	35	21
Apartments (Local Trip Gen Study)	30 units	304	4	13	14	11
<b>Total – Main Driveway</b>	<b>87 units</b>	<b>894</b>	<b>15</b>	<b>45</b>	<b>49</b>	<b>32</b>
<b>Apartments (Local Trip Gen Study) Townhome Driveways</b>	<b>28 units</b>	<b>281</b>	<b>3</b>	<b>12</b>	<b>13</b>	<b>11</b>
<b>Total – Overall</b>	<b>115 units</b>	<b>1,175</b>	<b>18</b>	<b>57</b>	<b>62</b>	<b>43</b>

## EXHIBIT A

**Hatmaker Subdivision  
Transportation Impact Analysis  
October 26, 2020**

The existing distribution of traffic at the intersection of W Emory Road at Henderson Road is approximately 50% W Emory Road to/from Karns Valley Drive, 25% Henderson Road and 25% W Emory Road to/from Hackworth Road during both the AM and PM peak hours.

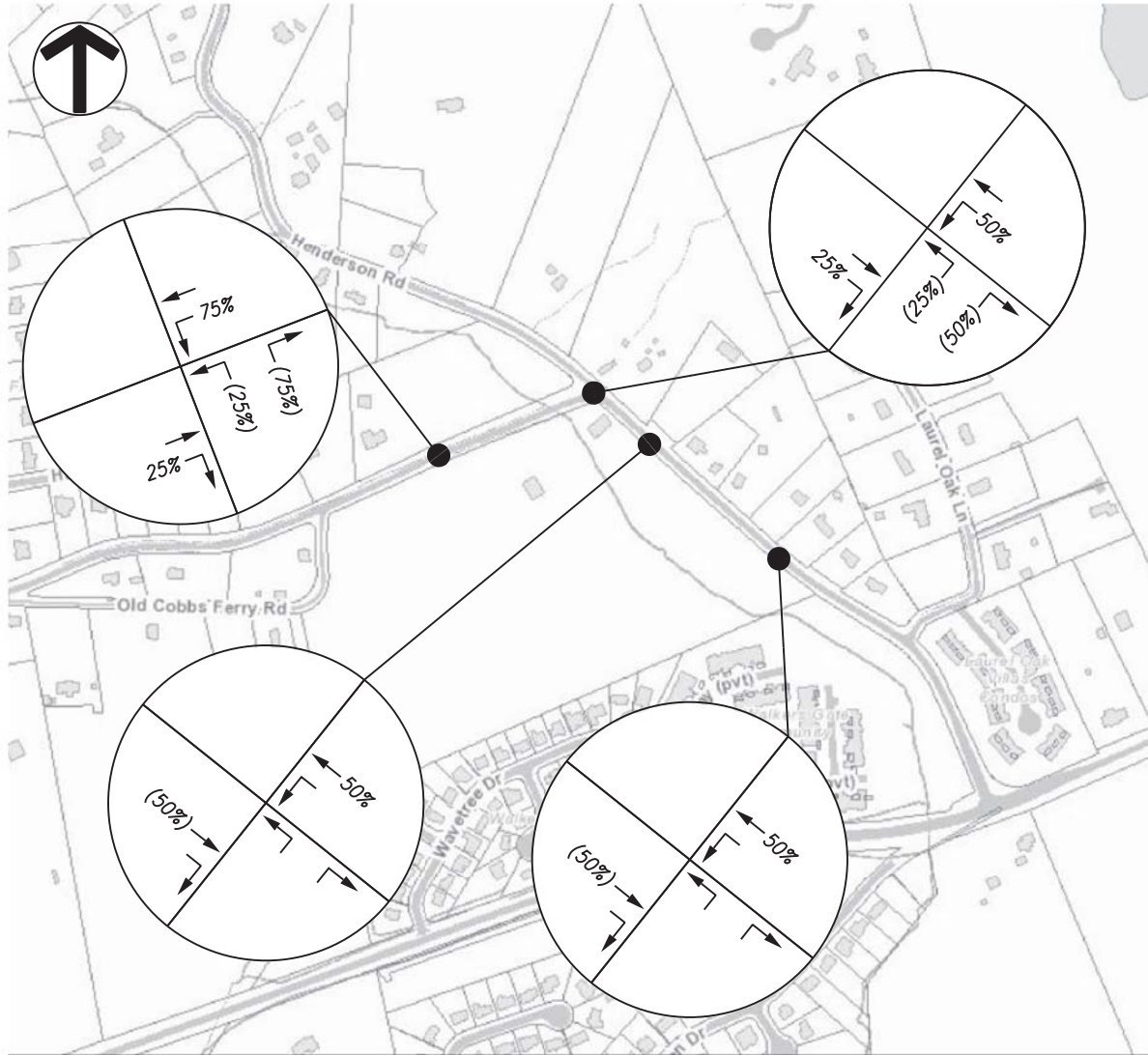
The directional distribution of the traffic generated by the Hatmaker Subdivision was determined using the existing traffic volumes at the intersection of W Emory Road at Henderson Road in combination with the concept plan layout. FMA assumed that 76% of traffic would enter/exit from the main entrance on W Emory Road and 12% of traffic would enter/exit from each of the townhomes driveways on W Emory Road.

Figure 5 shows the peak hour trip distribution for the main driveway and Figure 6 shows the peak hour trip distribution for the townhomes driveways.

Figure 7 shows the peak hour site trips generated by the Hatmaker Subdivision and Figure 8 shows the projected full buildout peak hour traffic after the completion of the Hatmaker Subdivision.



# EXHIBIT A



## LEGEND:

← 50% (50%) TRIP DISTRIBUTION ENTERING (EXITING)

Figure 5: Peak Hour Trip Distribution - Main Driveway

# EXHIBIT A

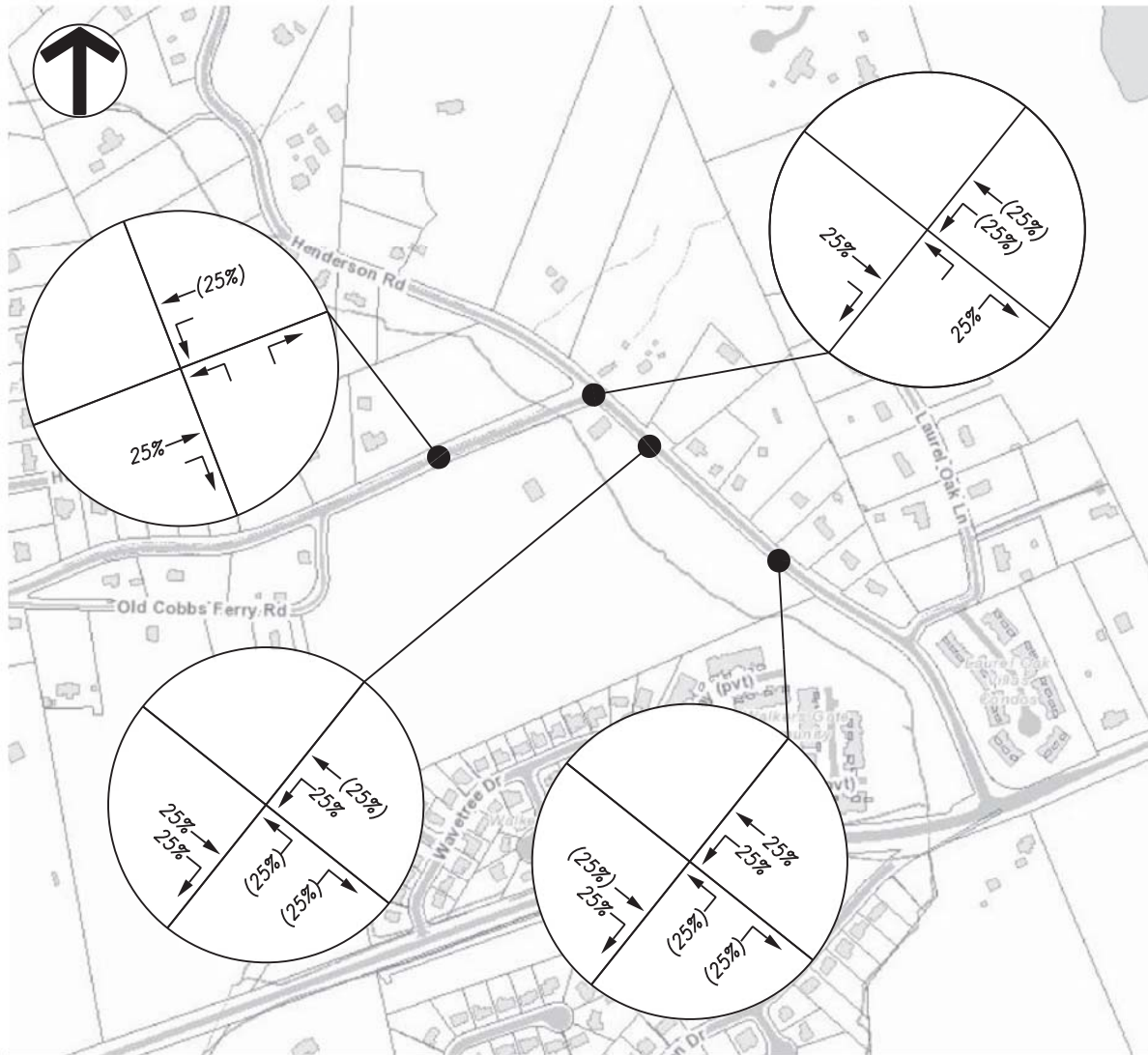
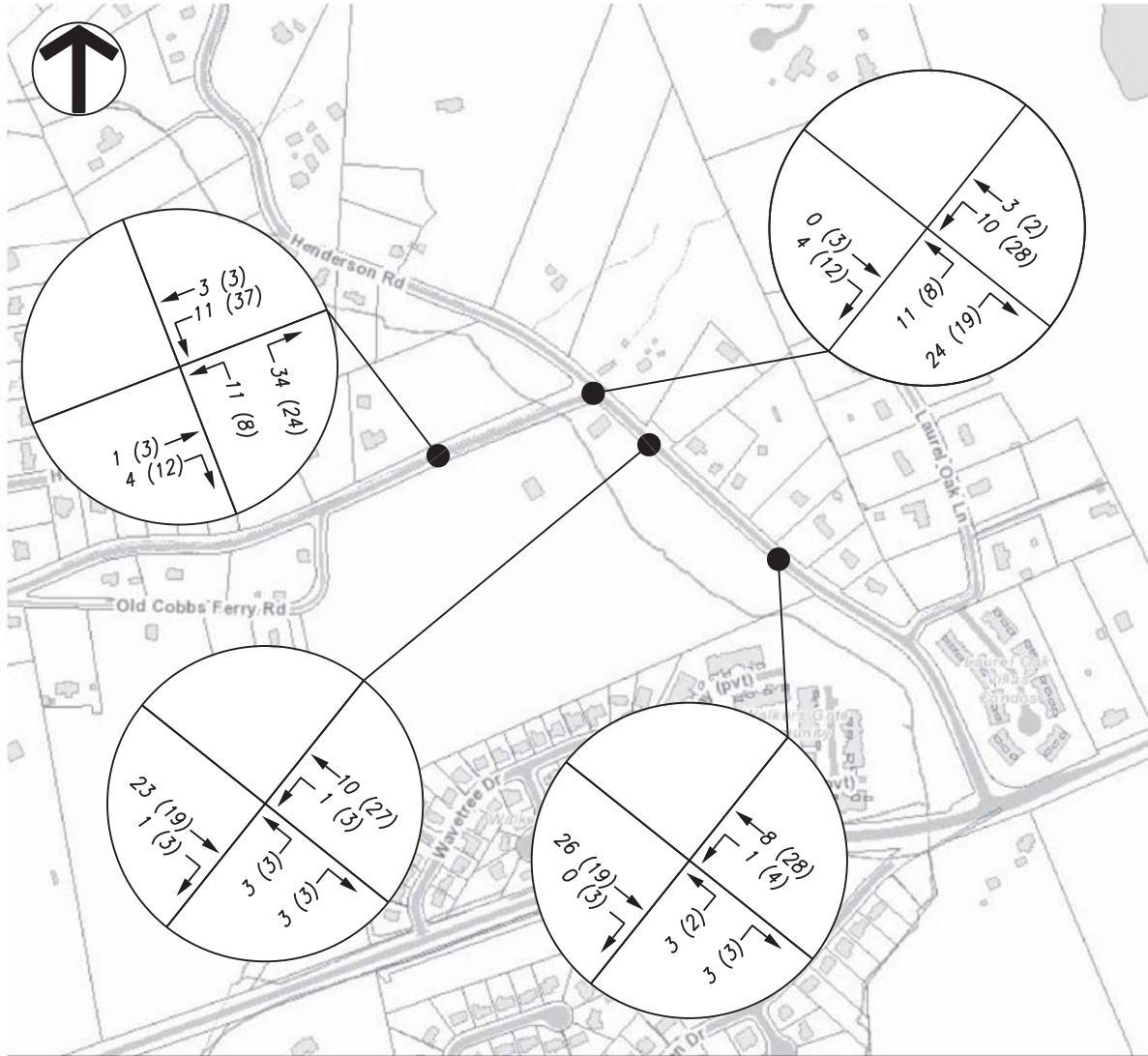


Figure 6: Peak Hour Trip Distribution - Townhome Driveways

# EXHIBIT A

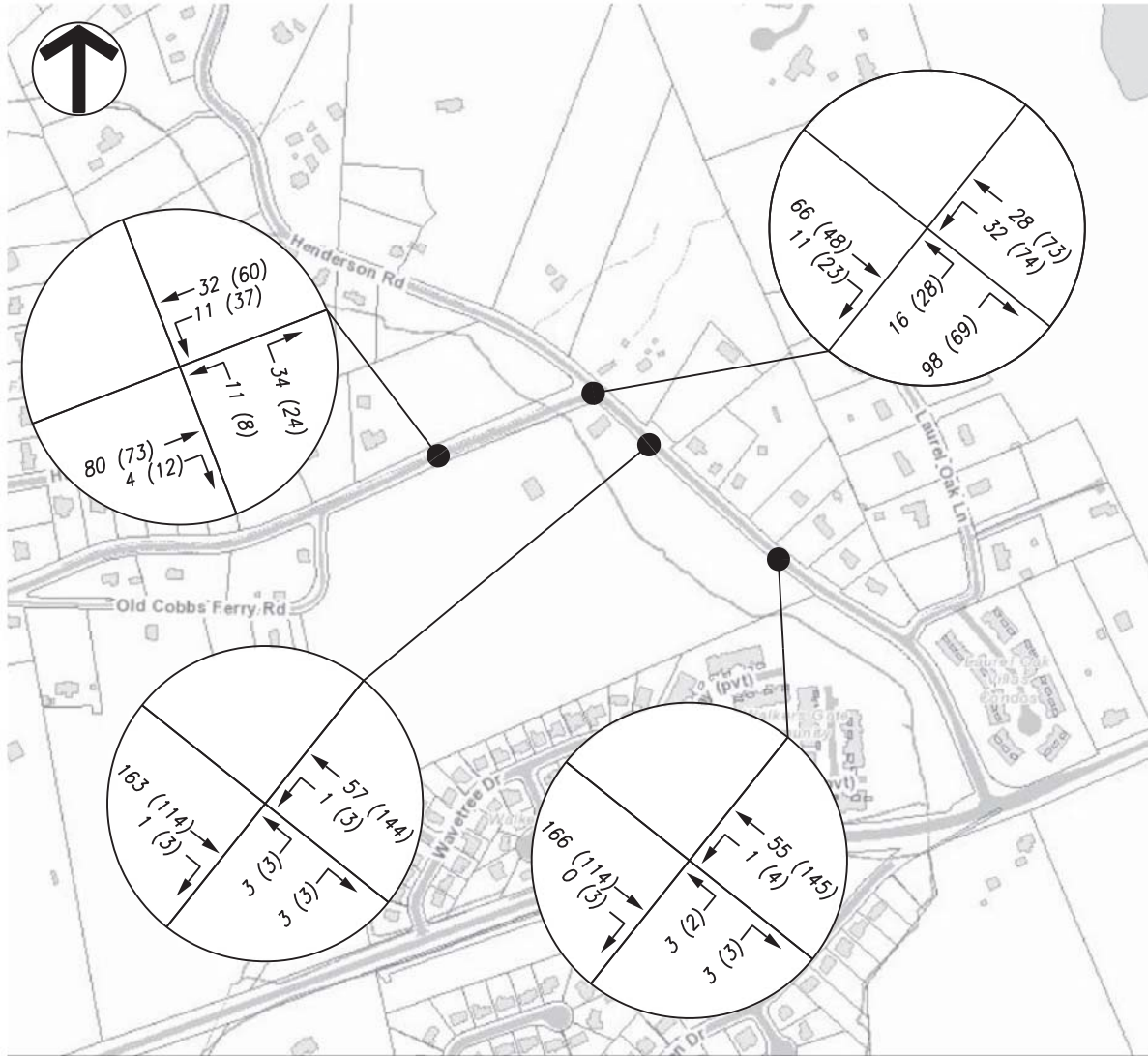


**LEGEND:**

← 5 (16)      TURNING MOVEMENT VOLUME AM (PM)

Figure 7: Hatmaker Subdivision Peak Hour Site Trips

# EXHIBIT A



**LEGEND:**

← 5 (16)      TURNING MOVEMENT VOLUME AM (PM)

Figure 8: 2023 Full Buildout Peak Hour Traffic

**5 Projected Capacity and Level of Service**

The existing intersection of W Emory Road at Henderson Road is a three-legged intersection with a stop sign for southbound traffic on Henderson Road.

Unsignalized intersection capacity analyses were performed using the Highway Capacity Software (HCS7) for the AM and PM peak hours to evaluate the existing, background and full buildout conditions at the intersection of W Emory Road at Henderson Road and the full buildout conditions at the intersection of W Emory Road at the three driveway connections.

The results from the analyses are expressed with a term “level of service” (LOS), which is based on the amount of delay experienced at the intersection. The LOS index ranges from LOS A, indicating excellent traffic conditions with minimal delay, to LOS F indicating very congested conditions with excessive delay. LOS D generally is considered the minimum acceptable condition in urban areas. The HCS7 worksheets are included in Attachments 5, 6 and 7.

Table 5-1 shows the results of the capacity analyses.

**Table 5-1  
Intersection Analysis  
Level of Service (LOS) Summary**

Delay (sec)/LOS		
<b>W Emory Road @ Henderson Road (Existing 2020)</b>		
AM Peak	EB Left Turn	7.3 / A
	SB Approach	9.7 / A
PM Peak	EB Left Turn	7.5 / A
	SB Approach	9.7 / A
<b>W Emory Road @ Henderson Road (Background 2023)</b>		
AM Peak	EB Left Turn	7.3 / A
	SB Approach	9.8 / A
PM Peak	EB Left Turn	7.5 / A
	SB Approach	9.8 / A

# EXHIBIT A

## W Emory Road @ Henderson Road (Full Buildout 2023)

---

AM Peak	EB Left Turn	7.4 / A
	SB Approach	10.4 / B

---

PM Peak	EB Left Turn	7.6 / A
	SB Approach	10.2 / B

---

## W Emory Road @ Main Driveway (Full Buildout 2023)

---

AM Peak	WB Left Turn	7.4 / A
	NB Approach	9.1 / A

---

PM Peak	WB Left Turn	7.5 / A
	NB Approach	9.2 / A

---

## W Emory Road @ Townhome Driveway (North) (Full Buildout 2023)

---

AM Peak	EB Approach	9.5 / A
	NB Left Turn	7.6 / A

---

PM Peak	EB Approach	9.6 / A
	NB Left Turn	7.5 / A

---

## W Emory Road @ Townhome Driveway (South) (Full Buildout 2023)

---

AM Peak	EB Approach	9.5 / A
	NB Left Turn	7.6 / A

---

PM Peak	EB Approach	9.4 / A
	NB Left Turn	7.5 / A

---

---



## **6 Turn Lane Warrant Analysis**

---

The intersection of W Emory Road at the main driveway connection was evaluated to determine if a right turn lane or a left turn lane are warranted. The Knox County Department of Engineering and Public Works handbook, "Access Control and Driveway Design Policy," was used to analyze the information. Neither an eastbound right turn lane nor a westbound left turn lane on W Emory Road is warranted. The turn lane warrant worksheets and analysis are included in Attachment 8.

## **7 Conclusions and Recommendations**

---

### **7.1 W Emory Road @ Henderson Road**

The existing, background and full buildout conditions at the unsignalized intersection of W Emory Road at Henderson Road were analyzed using the Highway Capacity Software (HCS7).

The existing and background traffic conditions for the eastbound left turn movement (W Emory Road) operate at a LOS A during both the AM and PM peak hours and the southbound approach (Henderson Road) operates at a LOS A during both the AM and PM peak hours.

The full buildout traffic conditions for the eastbound left turn movement (W Emory Road) operate at a LOS A during both the AM and PM peak hours and the southbound approach (Henderson Road) operates at a LOS B during both the AM and PM peak hours.

### **7.2 W Emory Road @ Driveway Connections**

The full buildout conditions at the unsignalized intersections of W Emory Road at the main driveway connection, townhome driveway (north) and townhome driveway (south) were analyzed using the Highway Capacity Software (HCS7).

At the intersection of W Emory Road at the main driveway connection the westbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hour and the northbound approach (driveway) operates at a LOS A during both the AM and PM peak hours after the completion of the Hatmaker Subdivision.

Neither an eastbound right turn lane nor a westbound left turn lane are warranted at the intersection of W Emory Road at the main driveway connection.



# EXHIBIT A

At the intersection of W Emory Road at the townhome driveway (north) the eastbound approach (driveway) operates at a LOS A during both the AM and PM peak hour and the northbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hours after the completion of the Hatmaker Subdivision.

At the intersection of W Emory Road at the townhome driveway (south) the eastbound approach (driveway) operates at a LOS A during both the AM and PM peak hour and the northbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hours after the completion of the Hatmaker Subdivision.

W Emory Road is classified as a Minor Collector per the Major Road Plan. The minimum intersection spacing required on a collector is 300 feet per the “Knoxville-Knox County Subdivision Regulations” amended through February 13, 2020. The proposed main driveway connection is located approximately 425 feet east of the intersection with Old Cobbs Ferry Road. The townhome driveway (north) is located 315 feet south of the intersection of W Emory Road and the townhome driveway (south) is located 510 feet south of the townhome driveway (north). All three driveway connections exceed the typical minimum separation on a collector; therefore, no change is necessary.

The minimum required sight distance for a road with a posted speed limit of 30 mph is 300 feet in each direction in accordance with the “Knoxville-Knox County Subdivision Regulations” amended through February 13, 2020. FMA measured the sight distance at the proposed driveway intersections at W Emory Road in September 2020. For the intersection of W Emory Road at the main driveway connection at 15 feet from the edge of pavement the sight distance is greater than 450 feet eastbound and westbound. For the intersection of W Emory Road at the townhome driveway (north) at 15 feet from the edge of pavement the sight distance is greater than 450 feet eastbound and westbound. For the intersection of W Emory Road at the townhome driveway (south) at 15 feet from the edge of pavement the sight distance is greater than 450 feet eastbound and westbound.

## 7.3 Subdivision Roads

Road “A”, Road “B”, Road “C”, Road “D”, Road “E” and Road “F” will have a width of 26 feet in accordance with the “Knoxville-Knox County Subdivision Regulations” amended through February 13, 2020.

Any required sight distance easements for the internal subdivision intersections of Road “A”, Road “B”, Road “C”, Road “D”, Road “E” and Road “F” should be coordinated with Knox County Engineering and Public Works and included on the final design drawings prior to construction of the subdivision.

**EXHIBIT A**

**Attachment 1  
Aerial Photo**

---

EXHIBIT A

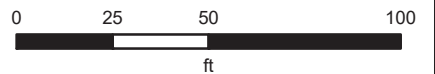


W Emory Rd at Henderson Rd

Knoxville - Knox County - KUB Geographic Information System



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# DEVELOPMENT REQUEST

## DEVELOPMENT

- Development Plan
- Planned Development
- Use on Review / Special Use

## SUBDIVISION

- Concept Plan
- Final Plat

## ZONING

- Plan Amendment
- Rezoning

Ball Homes, LLC

Developer

Applicant Name

Affiliation

10/26/2020

December 10, 2020

12-SD-20-C / 12-F-20-UR

Date Filed

Meeting Date (if applicable)

File Number(s)

## 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

Mr. Brian Stephens

Ball Homes, LLC

Name

Company

3609 Walden Drive

Lexington

KY

40517

Address

City

State

Zip

859.268.1191

bstephens@ballhomes.com

Phone

Email

## CURRENT PROPERTY INFO

Charles L Hatmaker

8925 West Emory Rd, Knoxville TN 37931

Owner Name (if different)

Owner Address

Owner Phone

8935 W Emory Road Knoxville, TN 37931

077 083

Property Address

Parcel ID

North of Karns Valley Drive between W Emory Rd & Old Cobbs Ferry Rd

36.41 ac

General Location

Tract Size

W6

PR (<5 DU/AC)

Jurisdiction (specify district above)

- City
- County

Zoning District

Northwest County

LDR

Planned Growth

Planning Sector

Sector Plan Land Use Classification

Growth Policy Plan Designation

AgForVac

N

WKUD

WKUD

Existing Land Use

Septic (Y/N)

Sewer Provider

Water Provider

# REQUEST

<b>DEVELOPMENT</b>	<input type="checkbox"/> Development Plan <input checked="" type="checkbox"/> Use on Review / Special Use <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Non-Residential <input checked="" type="checkbox"/> Home Occupation (specify): <u>Single Family Residential</u> <input type="checkbox"/> Other (specify): _____
<b>SUBDIVISION</b>	<u>Hatmaker Subdivision</u> <input checked="" type="checkbox"/> Proposed Subdivision Name _____ Unit / Phase Number _____ <input type="checkbox"/> Parcel Change <input type="checkbox"/> Combine Parcels <input type="checkbox"/> Divide Parcel    Total Number of Lots Created: _____ <input type="checkbox"/> Other (specify): _____ <input checked="" type="checkbox"/> Attachments / Additional Requirements
<b>ZONING</b>	<input type="checkbox"/> Zoning Change: _____ Proposed Zoning _____ <input type="checkbox"/> Plan Amendment Change: _____ Proposed Plan Designation(s) _____  Proposed Density (units/acre) _____ Previous Rezoning Requests _____ <input type="checkbox"/> Other (specify): _____

<b>STAFF USE ONLY</b>	<b>PLAT TYPE</b> <input type="checkbox"/> Staff Review <input type="checkbox"/> Planning Commission	<b>FEE 1:</b>		<b>TOTAL:</b>	
	<b>ATTACHMENTS</b> <input type="checkbox"/> Property Owners / Option Holders <input checked="" type="checkbox"/> Variance Request	0406	\$3,641.00		\$3,641.00
	<b>ADDITIONAL REQUIREMENTS</b> <input type="checkbox"/> Design Plan Certification ( <i>Final Plat only</i> ) <input checked="" type="checkbox"/> Use on Review / Special Use ( <i>Concept Plan only</i> ) <input checked="" type="checkbox"/> Traffic Impact Study	<b>FEE 2:</b>			
	<b>FEE 3:</b>				

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

	<b>Brian Stephens</b>	
Applicant Signature	Please Print	Date
<b>859.268.1191</b>	<b>bstephens@ballhomes.com</b>	
Phone Number	Email	
	Elizabeth Albertson	10/26/2020
Staff Signature	Please Print	Date



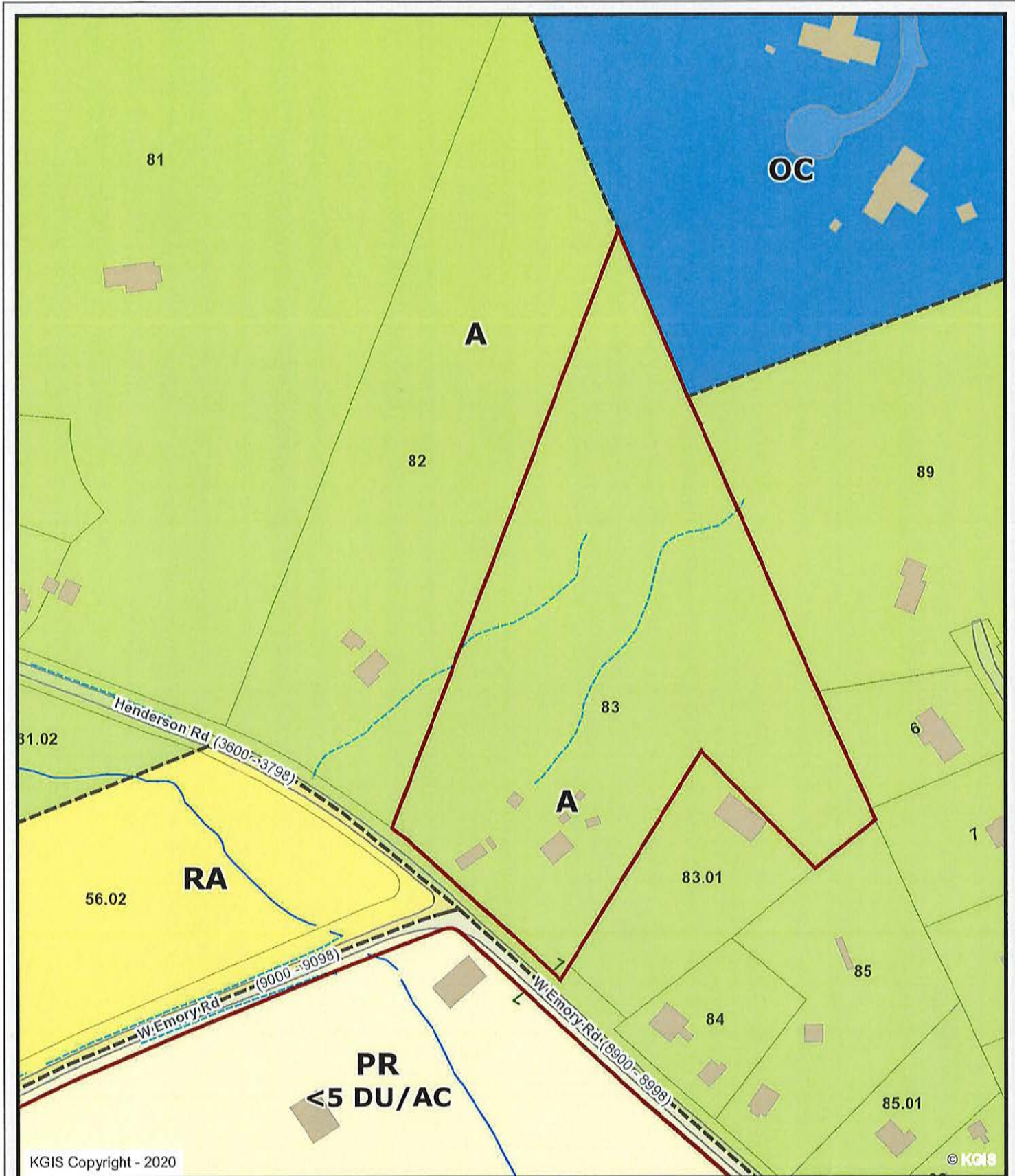
**NAMES OF ALL PROPERTY OWNERS INVOLVED OR HOLDERS OF OPTION ON SAME  
MUST BE LISTED BELOW:**

Please print or type in black ink:

NAME	ADDRESS	CITY	STATE	ZIP	OWNER / OPTION	
Ball Homes, LLC	3609 Walden Dr	Lexington	KY	40517	x	x
Charles L Hatmaker	8925 W. Emory Road	Knoxville	TN	37931	x	

If more space is needed, attach additional sheets.





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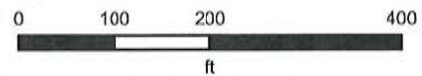
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### Letter Portrait

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# VARIANCES REQUESTED



1. Reduce minimum horizontal curve radius from 250-FT to 100-FT for Road "A" from Sta 7+21.63 to Sta 9+44.09

Justify variance by indicating hardship: Site Topography

Increase allowable grade approaching an intersection from 1% to a maximum of 3% for Road "D" Sta 0+13.00 to Sta 0+45.18 & Road "H" from Sta 0+00.00 to Sta 0+67.36

Justify variance by indicating hardship: Site Topography

3. \_\_\_\_\_

Justify variance by indicating hardship: \_\_\_\_\_

4. \_\_\_\_\_

Justify variance by indicating hardship: \_\_\_\_\_

5. \_\_\_\_\_

Justify variance by indicating hardship: \_\_\_\_\_

6. \_\_\_\_\_

Justify variance by indicating hardship: \_\_\_\_\_

7. \_\_\_\_\_

Justify variance by indicating hardship: \_\_\_\_\_

I certify that any and all variances needed to meet regulations are requested above, or are attached. I understand and agree that no additional variances can be acted upon by the legislative body upon appeal and none will be requested. I hereby waive the requirement for approval or disapproval of the plat within sixty (60) days after its submission, in accordance with the provisions of Tennessee Code Annotated 13-3-404.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date