



SUBDIVISION REPORT - CONCEPT/USE ON REVIEW

▶ **FILE #:** 8-SD-20-C
8-F-20-UR

AGENDA ITEM #: 26
AGENDA DATE: 8/13/2020

▶ **SUBDIVISION:** ANDES TRACE SUBDIVISION

▶ **APPLICANT/DEVELOPER:** BALL HOMES, LLC

OWNER(S): Derek, Charles & John Byrd

TAX IDENTIFICATION: 105 040, 025 (PART OF) , & 03904

[View map on KGIS](#)

JURISDICTION: County Commission District 6

STREET ADDRESS: 0 and 1609 Old Andes Rd. & 0 Andes Rd.

▶ **LOCATION:** North of Old Andes Rd., west of Andes Rd., south of Troutman Ln.

SECTOR PLAN: Northwest County

GROWTH POLICY PLAN: Planned Growth Area

WATERSHED: Beaver Creek and Turkey Creek

▶ **APPROXIMATE ACREAGE:** 49.85 acres

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

▶ **EXISTING LAND USE:** Vacant land

▶ **PROPOSED USE:** Single family residential

SURROUNDING LAND USE AND ZONING:
North: Residences / A (Agricultural)
South: Residences / A (Agricultural), PR (Planned Residential), RA (Low Density Residential)
East: Residences / A (Agricultural)
West: Residences / A (Agricultural, PR (Planned Residential))

▶ **NUMBER OF LOTS:** 170

SURVEYOR/ENGINEER: William C., Jr. Fulghum

ACCESSIBILITY: Access is from Andes Rd., a local street with 18 feet of pavement within 50 feet of right-of-way; and Old Andes Rd, a local street with a pavement width of 13 feet within 26 feet of right-of-way.

▶ **SUBDIVISION VARIANCES REQUIRED:** VARIANCES:

1. REDUCE MINIMUM BROKEN BACK CURVE TANGENT LENGTH FROM 150' TO 100' ON ROAD 'A' FROM STA 0+85.82 TO STA 1+85.82.
2. REDUCE MINIMUM BROKEN BACK CURVE TANGENT LENGTH FROM 150' TO 50' ON ROAD 'C' FROM STA 6+95.06 TO STA 7+45.06.

ALTERNATIVE DESIGN STANDARDS REQUIRING PLANNING COMMISSION APPROVAL:

1. REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 125-FT FOR ROAD "A" FROM STA 1+88.82 TO STA 3+12.35

2. REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 175-FT FOR ROAD "A" FROM STA 5+14.36 TO STA 9+09.94
3. REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 150-FT FOR ROAD "C" FROM STA 4+04.07 TO STA 5+68.52.
4. REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 150-FT FOR ROAD "C" FROM STA 6+ 18.52 TO STA 8+33.15.
5. REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 150-FT FOR ROAD "C" FROM STA 17+55.45 TO STA 19+99.54.
6. REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250-FT TO 150-FT FOR ROAD "C" FROM STA 23+ 15.05 TO STA 25+42.20.

ALTERNATIVE DESIGN STANDARDS APPROVED BY KNOX COUNTY ENGINEERING AND PUBLIC WORKS:

1. REDUCE MINIMUM RIGHT-OF-WAY WIDTH ON ROAD 'A' FROM 50' TO 40' FROM STA 0+00.00 TO STA 4+90.17.
2. REDUCE MINIMUM PAVEMENT WIDTH ON ROAD 'A' FROM 26' TO 20' FROM STA 0+00.00 TO STA 5+00.68 .
3. REDUCE MINIMUM RIGHT-OF-WAY WIDTH ON OLD ANDES ROAD FROM 50' TO 40' FROM STA 0+00.00 TO 4+66.37.
4. REDUCE MINIMUM PAVEMENT WIDTH ON OLD ANDES ROAD FROM 26' TO 20' FROM STA 0+00.00 TO STA 3+50.30.

STAFF RECOMMENDATION:

- ▶ **APPROVE** variances 1-2 and alternative design standards 1-6 based on the recommendations of the Knox County Department of Engineering and Public Works and because the site conditions restrict compliance with the Subdivision Regulations and the proposed variances and alternative design standards will not create a traffic hazard.

APPROVE the Concept Plan subject to 9 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) Providing a minimum 30' driveway depth for all driveways that connect to Road 'A' or Old Andes Road.
- 4) Approval of the two "loop lane" designs on Road 'C' that provides access for lots 13-135 and 155-160 by the Knox County Department of Engineering and Public Works during the design plan phase.
- 5) Meeting all other applicable requirements of the Knox County Department of Engineering and Public Works.
- 6) Implementing the recommended transportation improvements in the Andes Road Subdivision Transportation Impact Analysis, as amended and approved by Planning Commission staff and the Knox County Department of Engineering and Public Works. The design details and timing of the installation of the improvements shall be worked out with the Knox County Department of Engineering and Public Works during the design plan stage for the subdivision.
- 7) Providing the required buffer for the stream that is located between lots 35 and 36, and lots 163 and 164, unless this drainage way connecting the two existing ponds is determined to be a "wet weather conveyance".
- 8) 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.
- 9) 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 170 detached residential lots and a reduction of the 35' peripheral setback to 15' for lots 1, 50, and 170 and to 25' for lots 17, 18, 133, and 134, subject to 2 conditions.**

- 1) Meeting all applicable requirements of the Knox County Zoning Ordinance.
- 2) Implementing the reforestation of graded slopes as shown on sheet C1. The timing for installation will be reviewed and approved by the Knox County Department of Engineering and Public Works during design plan phase.

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:

Summary

This proposal is for the construction of 170 detached houses on the 49.85-acre PR zoned portion of the two properties. The remainder of the 14.2-acre site is zoned A (Agricultural). The proposal includes improving and realigning Old Andes Road to a width of 20' pavement within a 40' right-of-way. The remainder of the new internal roads will have a pavement width of 26' within a 50' right-of-way. A road stubout will be provide at the end of Road 'E' for future extension into the remainder of the property zoned A (Agricultural). The properties where rezoned at different times, with the southern portion of the property zoned PR up to 4 du/ac and the northern portion zoned PR up to 3 du/ac. The maximum density permitted based on the acreage of the two zone districts is 3.6 du/ac. This proposal has a density of 3.41 du/ac.

Plan Recommendations

The Hillside and Ridgetop Protection Plan provides guidance for how much land disturbance should be permitted within the Hillside Protection (HP) area. Based on the acreage of land within the different slope categories, the maximum recommended land disturbance is approximately 24.267-acres (71.9 percent) of the total 33.75-acres in the HP area. This proposal exceeds the recommended disturbance area by approximately 6.6 acres. To offset this additional disturbance, the applicant proposes to reforest the disturbed areas that are shaded grey on plan sheet C1.

Open Space / Amenities

The proposed common open space but no specified amenities that are to be provided for the development.

Road Design

When these properties were rezoned to Planned Residential, it was determined by Knox County Engineering and Public Works that there was existing right-of-way on Old Andes Road that was not shown on the parcel map that would allow for road improvements. This proposal has a 20' paved surface and 40' right-of-way for Old Andes Road, including the portions of Road 'A' that was formally Old Andes Road. The road improvements and right-of-way dedication on the portion of Old Andes Road that will remain will only be on the property owned by the applicant, not adjacent properties to the south.

Road 'C' has a road feature that is best described as an "eyebrow" or "loop lane" that provides access to lots 130-135 and lots 155-160. This type of road feature is not addressed in the Knoxville-Knox County Subdivision Regulations but has been approved by the Planning Commission and Knox County Engineering and Public Works (EPW) in 2003 (10-SF-03-C / 10-I-03-UR) for the Wyndham Pointe subdivision (FKA Grayhawk Landing) off of Beaver Ridge Road. No subdivision regulation variances were approved for this previous plan, however, there was a condition that the design be approved by Knox County EPW. This loop lane is not considered a separate road, so it is part of Road 'C' and will be addressed as such. If this type of road feature is desired in our community, standards should be added to the subdivision regulations so these don't have to be considered on a case-by-case basis in the future.

Driveway Length

Staff is recommending that the driveways that connect to Road 'A' and Old Andes Road have a minimum depth of 30' to provide additional space for off-street parking. Old Andes Road is proposed with a 20' paved surface which does not allow for two-way traffic and on-street parking, and Road 'A' will have the most traffic and the long curve at lots 167-170 is proposed with a 175' horizontal curve radius, which is less than the required 250' radius. The reduced radius is acceptable in order to help control the speed of vehicles, however, since the neighborhood does not have sidewalks, if a vehicle parks on the inside of that radius, pedestrians that walk around it will not be as visible to drivers heading southbound.

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

- 1) Public utilities are available to serve this site.
- 2) The developer is required to improve Old Andes Road from the southern intersection with Andes Road to the eastern boundary of the development.
- 3) The applicant is proposing to reforest the hillside protection area that is disturbed and located in the

common area.

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

- 1) With the stated conditions, the detached residential development meets the standards for development within a PR (Planned Residential) Zone and all other requirements of the Zoning Ordinance.
- 2) The proposed development 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 significant 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 3.41 du/ac, the development is consistent with the Sector Plan.
- 2) The site is located within the Planned Growth Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.
- 3) With the reforestation of the disturbed areas within the Hillside Protection area, the proposal meets the recommendations of the Hillside and Ridgetop Protection Plan when the approved disturbance is more than recommended.

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.

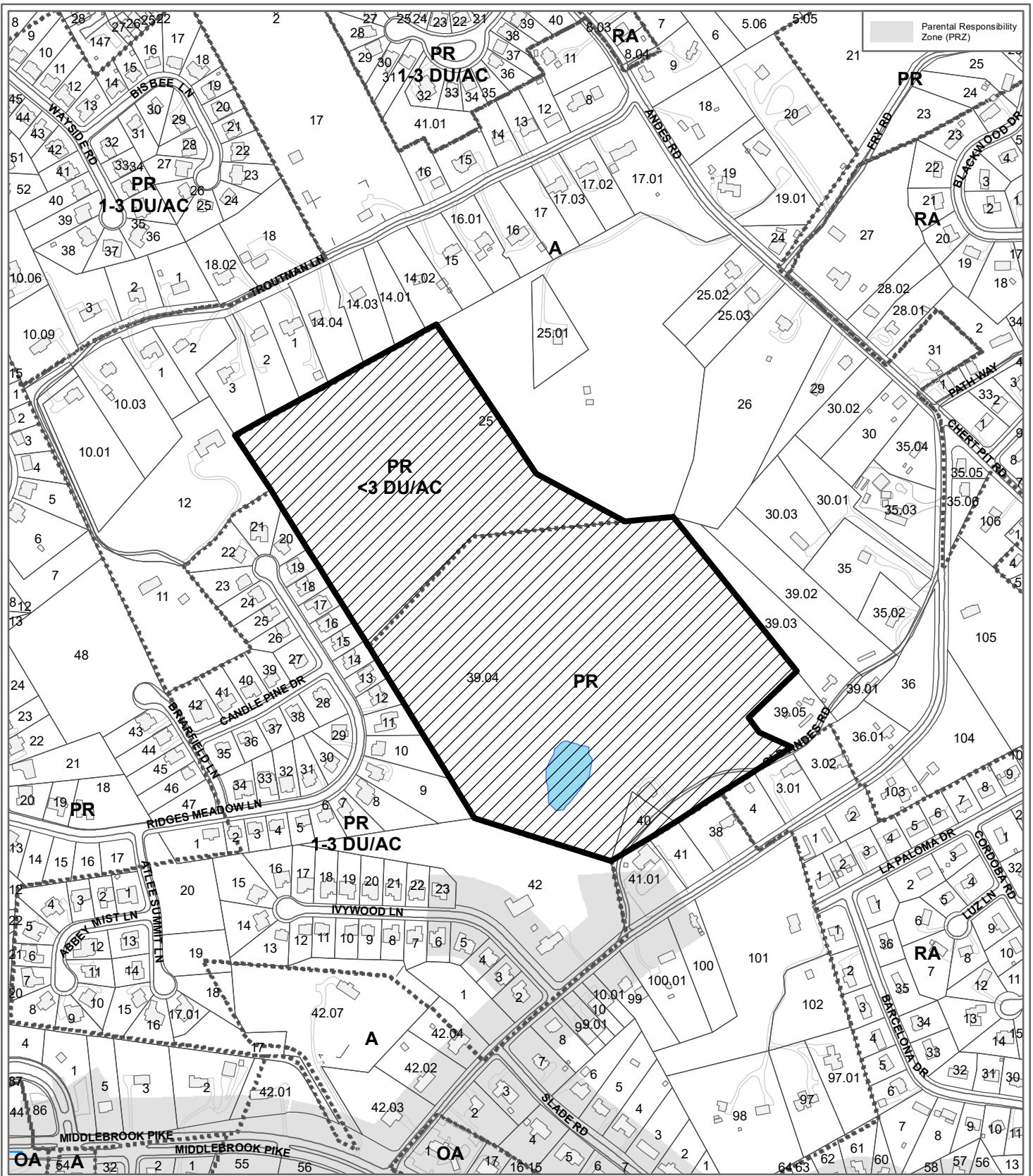
ESTIMATED STUDENT YIELD: 70 (public school children, grades K-12)

Schools affected by this proposal: Cedar Bluff Elementary, Karns Middle, and Hardin Valley Academy.

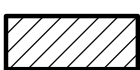
- Potential new school population is estimated using locally-derived data on public school student yield generated by new housing.
- Students are assigned to schools based on current attendance zones as determined by Knox County Schools. Students may request transfers to different zones, and zone boundaries 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.



**8-SD-20-C / 8-F-20-UR
CONCEPT PLAN/USE ON REVIEW**



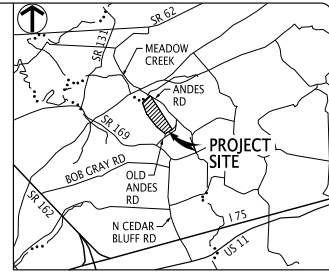
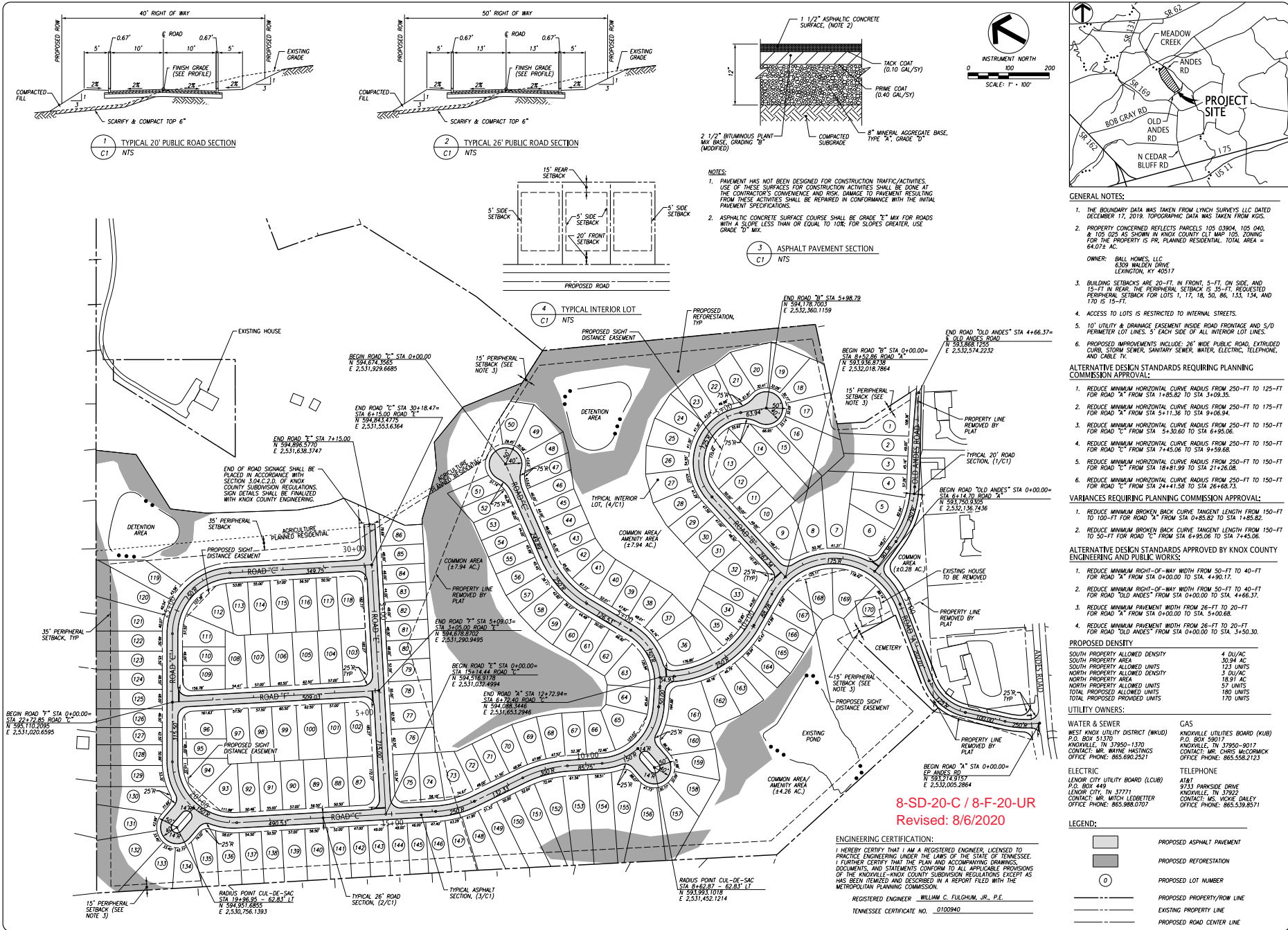
Single family residential in PR (Planned Residential)

Petitioner: Ball Homes, LLC
Andes Trace Subdivision

Map No: 105
Jurisdiction: County



Original Print Date: 7/21/2020 Revised:
Knoxville - Knoxville Planning Commission * City / County Building * Knoxville, TN 37902



FULGHUM
MACINDOE
 ASSOCIATES, INC.

10330 HARDEN VALLEY ROAD SUITE 201
 KNOXVILLE, TN 37932
 OFFICE: 865.690.6419
 FAX: 865.690.6418
 www.fulghummacindoe.com

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

ANDES TRACE SUBDIVISION
 1600 OLD ANDES ROAD
 KNOXVILLE, TENNESSEE 37931

BALL HOMES, LLC
 6309 WALDEN DRIVE
 LEXINGTON, KY 40517
 CONTACT: MRS. D.RAY BALL, JR.
 TELEPHONE NO.: 652.066.1151

CONCEPT PLAN

NO.	REVISION/ISSUE	DATE	BY
1	ISSUED CONCEPT PLAN	06/29/20	HNU
2	REVISED PER MFC COMMENTS	07/28/20	WCF
3	REVISED PER MFC COMMENTS	08/06/20	WCF
4	ISSUED PER MFC COMMENTS	08/26/20	WCF

Project: 592.007
 Date: 06/29/20
 Scale: 1"=100'

- GENERAL NOTES:**
- THE BOUNDARY DATA WAS TAKEN FROM LYNCH SURVEYS, LLC DATED DECEMBER 17, 2019. TOPOGRAPHIC DATA WAS TAKEN FROM KGIS.
 - PROPERTY CONCERNED REFLECTS PARCELS 105 03904, 105 040, & 105 025 AS SHOWN IN KNOX COUNTY PLAT MAP 105, ZONING FOR THE PROPERTY IS PR, PLANNED RESIDENTIAL. TOTAL AREA = 64.075 AC.
 - BUILDING SETBACKS ARE 20'-FT. IN FRONT, 5'-FT. ON SIDE AND 15'-FT. IN REAR. THE PERIPHERAL SETBACK IS 35'-FT. REQUESTED PERIPHERAL SETBACK FOR LOTS 1, 17, 18, 50, 86, 133, 134, AND 170 IS 15'-FT.
 - ACCESS TO LOTS IS RESTRICTED TO INTERNAL STREETS.
 - UTILITY & DRAINAGE EASEMENT INSIDE ROAD FRONTAGE AND S/D PERMETER 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.

- ALTERNATIVE DESIGN STANDARDS REQUIRING PLANNING COMMISSION APPROVAL:**
- REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250'-FT TO 125'-FT FOR ROAD "A" FROM STA 1+85.82 TO STA 3+09.35.
 - REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250'-FT TO 175'-FT FOR ROAD "A" FROM STA 5+11.36 TO STA 9+08.94.
 - REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250'-FT TO 150'-FT FOR ROAD "C" FROM STA 2+44.158 TO STA 6+59.05.
 - REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250'-FT TO 150'-FT FOR ROAD "C" FROM STA 7+45.06 TO STA 9+59.68.
 - REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250'-FT TO 150'-FT FOR ROAD "C" FROM STA 18+81.99 TO STA 21+26.08.
 - REDUCE MINIMUM HORIZONTAL CURVE RADIUS FROM 250'-FT TO 150'-FT FOR ROAD "C" FROM STA 24+11.58 TO STA 28+48.73.

- VARIANCES REQUIRING PLANNING COMMISSION APPROVAL:**
- REDUCE MINIMUM BROKEN BACK CURVE TANGENT LENGTH FROM 150'-FT TO 100'-FT FOR ROAD "A" FROM STA 0+85.82 TO STA 1+85.82.
 - REDUCE MINIMUM BROKEN BACK CURVE TANGENT LENGTH FROM 150'-FT TO 50'-FT FOR ROAD "C" FROM STA 6+95.06 TO STA 7+45.06.

- ALTERNATIVE DESIGN STANDARDS APPROVED BY KNOX COUNTY ENGINEERING AND PUBLIC WORKS:**
- REDUCE MINIMUM RIGHT-OF-WAY WIDTH FROM 50'-FT TO 40'-FT FOR ROAD "A" FROM STA 0+00.00 TO STA 4+00.12.
 - REDUCE MINIMUM RIGHT-OF-WAY WIDTH FROM 50'-FT TO 40'-FT FOR ROAD "OLD ANDES" FROM STA 0+00.00 TO STA 4+66.37.
 - REDUCE MINIMUM PAVEMENT WIDTH FROM 26'-FT TO 20'-FT FOR ROAD "A" FROM STA 0+00.00 TO STA 5+00.68.
 - REDUCE MINIMUM PAVEMENT WIDTH FROM 26'-FT TO 20'-FT FOR ROAD "OLD ANDES" FROM STA 0+00.00 TO STA 3+50.30.

PROPOSED DENSITY

SOUTH PROPERTY ALLOWED DENSITY	4 D/U/AC
SOUTH PROPERTY AREA	30.94 AC
SOUTH PROPERTY ALLOWED UNITS	123 UNITS
NORTH PROPERTY ALLOWED DENSITY	3 D/U/AC
NORTH PROPERTY AREA	18.91 AC
NORTH PROPERTY ALLOWED UNITS	57 UNITS
TOTAL PROPOSED ALLOWED UNITS	180 UNITS
TOTAL PROPOSED PROVIDED UNITS	170 UNITS

UTILITY OWNERS:

WATER & SEWER
 WEST KNOX UTILITY DISTRICT (WKUD)
 P.O. BOX 51370
 KNOXVILLE, TN 37950-1370
 CONTACT: MR. WAINE HASTINGS
 OFFICE PHONE: 865.690.2521

GAS
 KNOXVILLE UTILITIES BOARD (KUB)
 P.O. BOX 59017
 KNOXVILLE, TN 37950-9017
 CONTACT: MR. CHRIS MCCORMACK
 OFFICE PHONE: 865.558.2123

ELECTRIC
 TENNOR CITY UTILITY BOARD (TCUB)
 P.O. BOX 448
 LENOIR CITY, TN 37771
 CONTACT: MR. MITCH LETZBETTER
 OFFICE PHONE: 865.988.0707

TELEPHONE
 AT&T
 315 PARKSIDE DRIVE
 KNOXVILLE, TN 37922
 CONTACT: MR. WESLEY DAILEY
 OFFICE PHONE: 865.539.8571

- LEGEND:**
- PROPOSED ASPHALT PAVEMENT
 - PROPOSED REFORESTATION
 - PROPOSED LOT NUMBER
 - PROPOSED PROPERTY/ROW LINE
 - EXISTING PROPERTY LINE
 - PROPOSED ROAD CENTER LINE

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 REGULATIONS 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

8-SD-20-C / 8-F-20-UR
 Revised: 8/6/2020

PLAT NUMBER: 1552-02-001 (MFC) (CONCEPT) (5/20/20) (06/29/20)
 PLAN NUMBER: 8/6/2020

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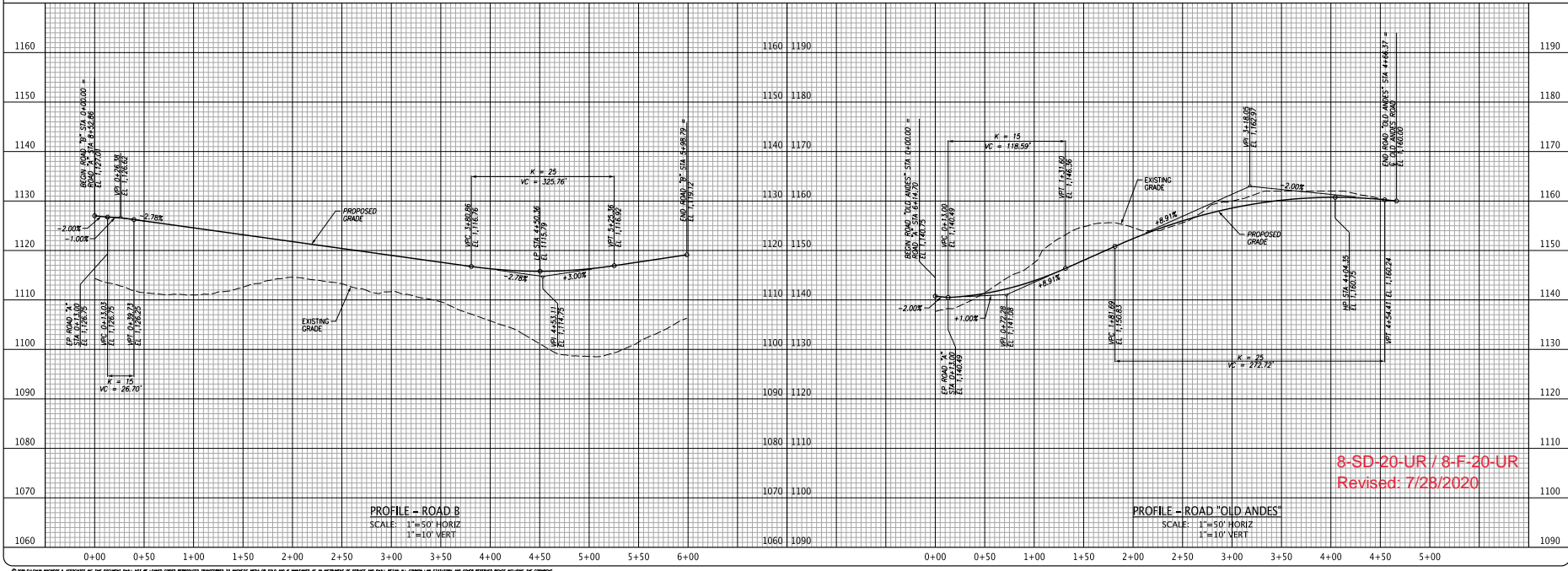
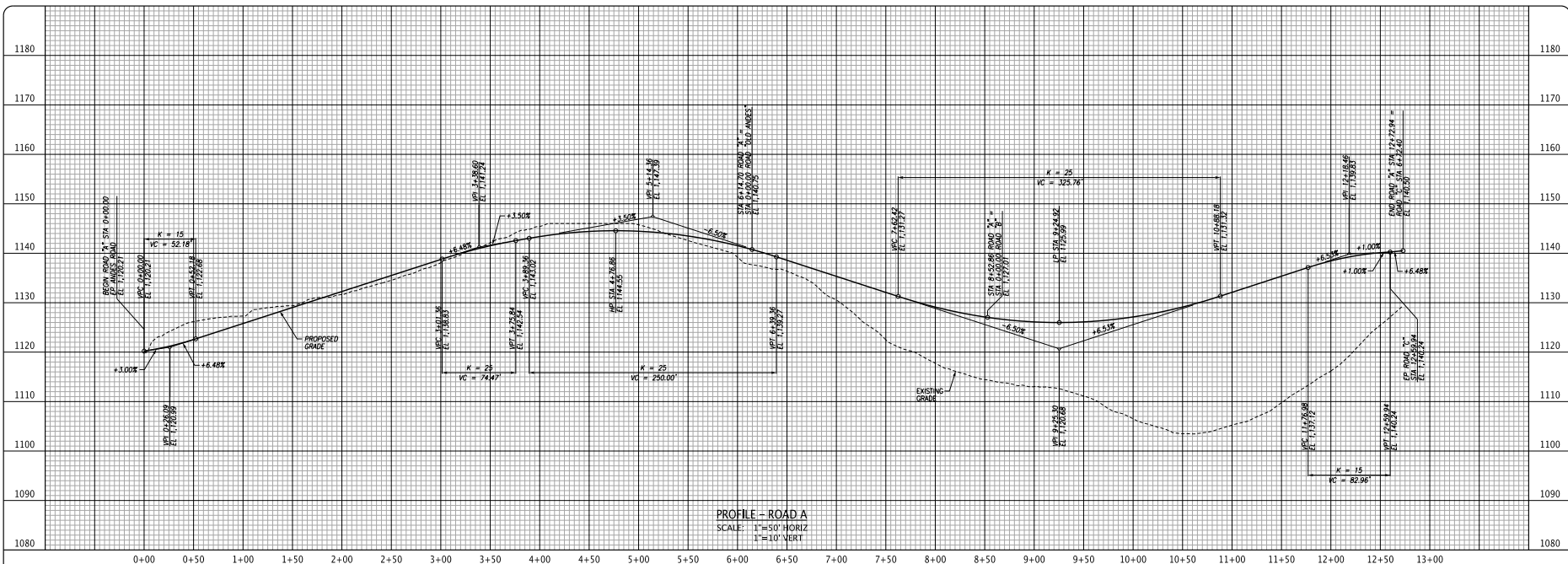
BALL HOMES, LLC
6309 WALDEN DRIVE
LEXINGTON, KY 40517
CONTACT: MR. D. RAY BALL, JR.
TELEPHONE NO.: 652.266.1191

ROAD PROFILES

PROJ. NO.	DATE	BY	REVISION/ISSUE
592.007	07/28/20	WJH	REVISED PER WPC COMMENTS
	06/29/20		ISSUED CONCEPT PLAN

Project: 592.007
Date: 06/29/20
Scale: NOTED

C3



8-SD-20-UR / 8-F-20-UR
Revised: 7/28/2020

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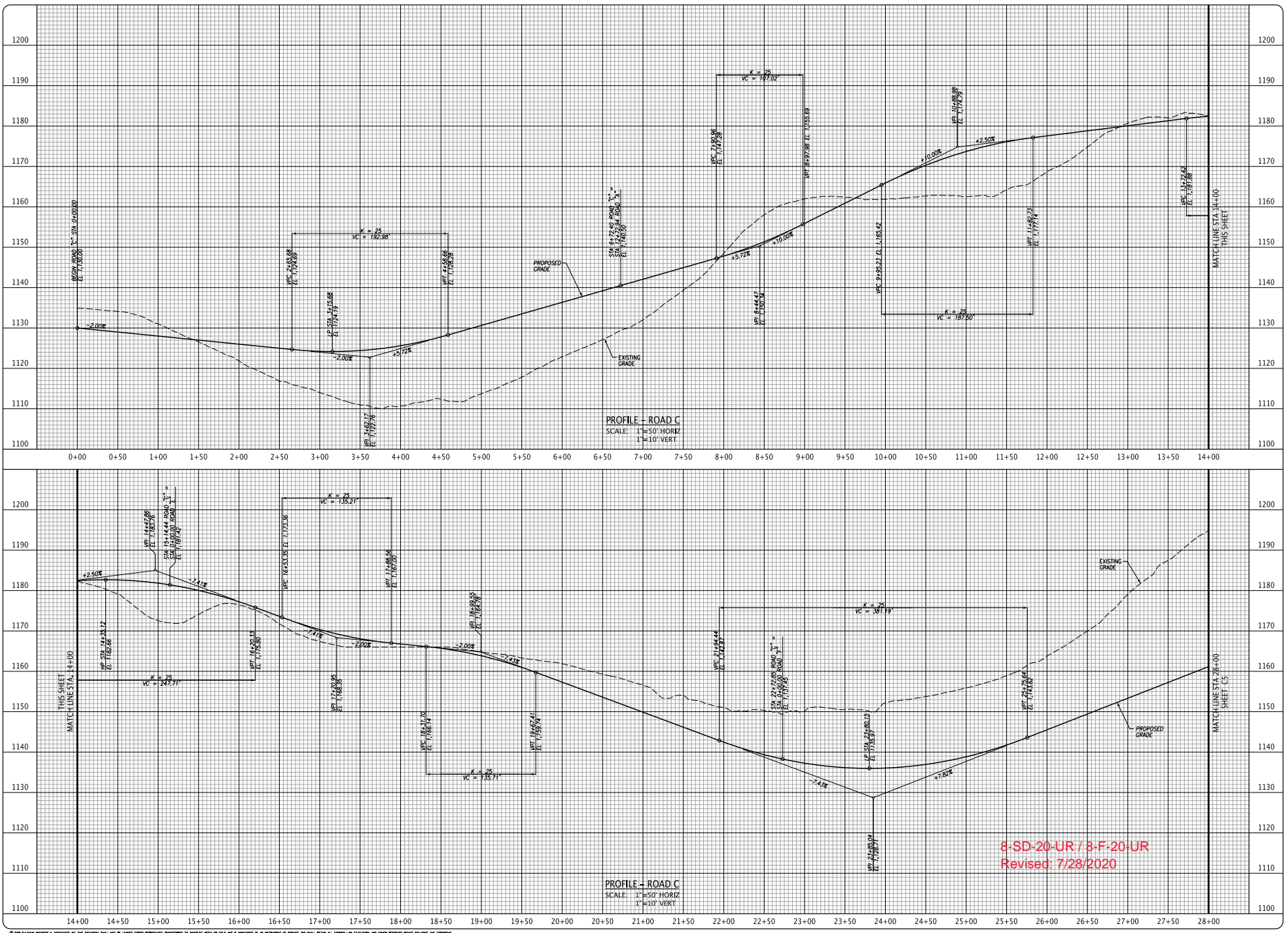
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ROAD PROFILES

PROJ. NO.	592.007
DATE	07/28/20
SCALE	NOTED
DESIGNED BY	DWG
CHECKED BY	MCF
DATE	06/29/20
REVISION	REVISION/ISSUE
NO.	
SHEET	C4



File Name: I:\2020\2020\592\592.dwg
 Plot Date: 7/28/2020
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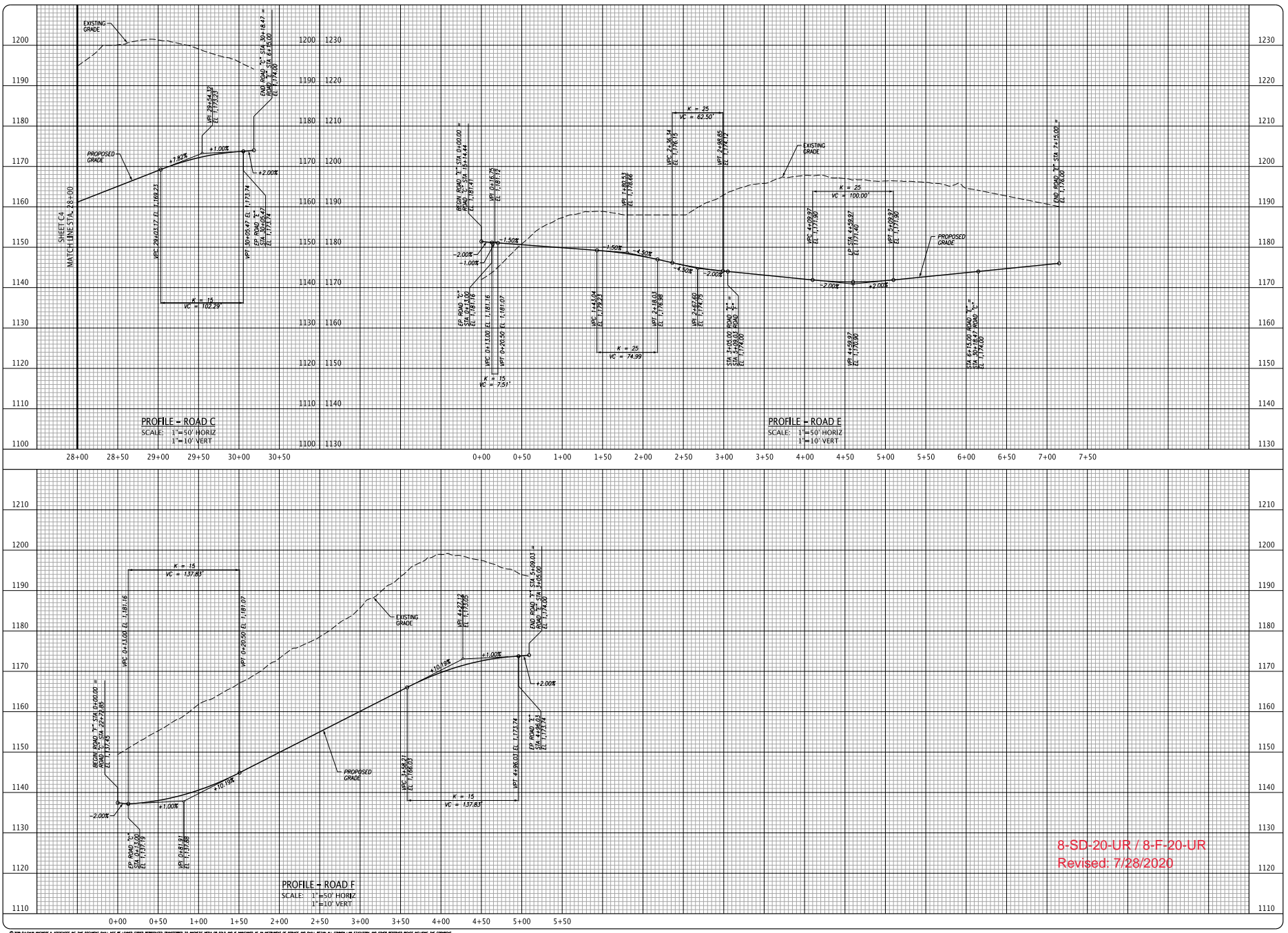
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TELEPHONE NO.: 652.266.1191

ROAD PROFILES

PROJECT NO.	592.007
DATE	07/28/20
SCALE	1"=10'
ISSUED FOR	REVISED PER WFC COMMENTS
ISSUED DATE	06/29/20
ISSUED BY	WFC
DESIGNED BY	CDC
DRAWN BY	HNU
PROJECT NO.	
DATE	
SCALE	
ISSUED FOR	Revision/Issue
ISSUED DATE	
ISSUED BY	
DESIGNED BY	
DRAWN BY	

Project: 592.007
Sheet: C5
Date: 06/29/20
Scale: NOTED

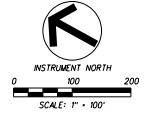


8-SD-20-UR / 8-F-20-UR
Revised: 7/28/2020

File Name: I:\16101\16101\16101\16101\16101\16101.dwg
Plot Name: 7/28/2020

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File Name: I:\2020\8-SD-20-C\8-SD-20-C.dwg
 Plot Date: 7/31/2020



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CONCEPT GRADING PLAN

PROJ. NO.	ISSUED BY	CHK	DATE
	MCF		
	DWG		
	HW		

Project	Sheet
592.007	C2

Date: 06/29/20
 Scale: 1" = 100'

8-SD-20-C
8-F-20-UR
 Revised: 7/31/2020

LEGEND:

	PROPOSED LOT NUMBER
	PROPOSED PROPERTY/ROW LINE
	EXISTING PROPERTY LINE
	PROPOSED ROAD CENTER LINE
	PROPOSED STORM PIPE
	PROPOSED CONTOUR
	EXISTING CONTOUR

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ANDES ROAD SUBDIVISION
Transportation Impact Analysis
Andes Road
Knoxville, TN

A Transportation Impact Analysis for the Andes Road Subdivision

Submitted to

Knoxville – Knox County Planning Commission

Revised August 10, 2020
June 22, 2020
FMA Project No. 592.007

Submitted By:



8-SD-20-C / 8-F-20-UR
Revised: 8/10/2020

Executive Summary

Ball Homes, LLC is proposing a residential development (i.e. Andes Road Subdivision) with single-family housing located in Knox County. The project is located at the intersection of Andes Road at Old Andes Road north of Middlebrook Pike. The full buildout of the development will consist of 170 single family lots. Construction is proposed to take place this year and this study assumes full build out for the development will occur in 2023.

The driveway connection will be located at the existing intersection of Andes Road at Old Andes Road approximately 365 feet north of the intersection of Ivywood Lane and approximately 1,280 feet north of the intersection with Middlebrook Pike. As a part of the construction of the Andes Road Subdivision an existing portion of Old Andes Road will be widened and renamed Road "A". Road "A" will begin at the intersection of Andes Road and will intersect at Road "Old Andes" at Station 6+14.70. Road "Old Andes" will begin at the intersection of Road "A" and will continue to Station 4+66.37 at which point it will intersect with the existing Old Andes Road.

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

Andes Road at Driveway Connection

The full buildout conditions at the unsignalized intersection of Andes Road at the driveway connection were analyzed using the Highway Capacity Software (HCS7). Both the eastbound approach and northbound left turn lane operate at a LOS A during both the AM and PM peak hours.

After the completion of the Andes Road Subdivision neither a northbound left turn lane nor a southbound right turn lane are warranted at the intersection of Andes Road at the driveway connection.

Subdivision Roads

Road "A" starting at Station 6 + 14.70 as well the internal subdivision Road "B", Road "C", 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.

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.

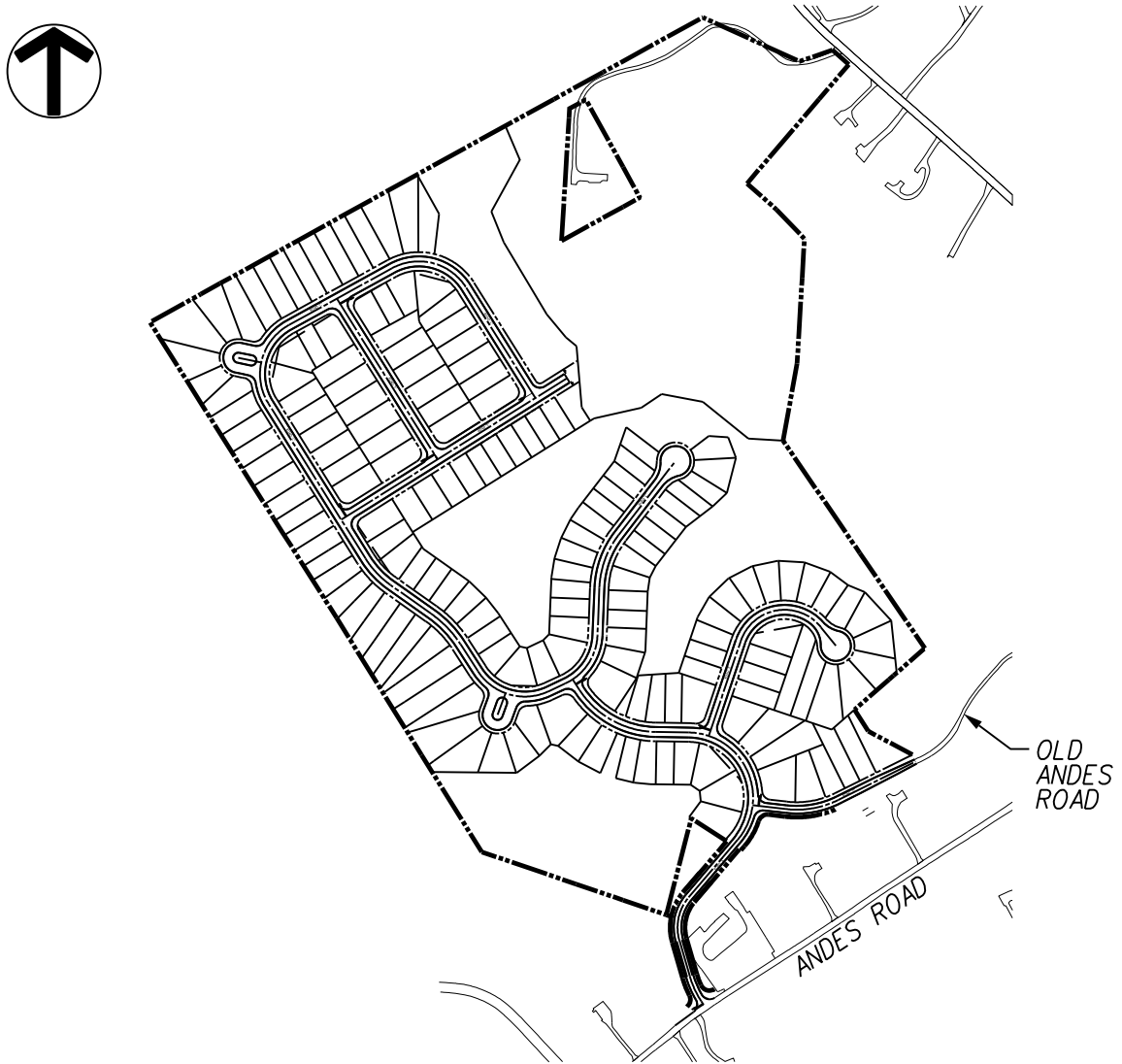


Figure 2: Site Plan

4 Trip Generation and Trip Distribution

The Andes Road Subdivision proposes 170 single family lots. 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, 10th Edition*, published by the Institute of Transportation Engineers. The land use worksheets are included in Attachment 5.

The total trips generated by the full buildout of the Andes Road Subdivision was estimated to be 1,694 daily trips. The estimated trips are 126 trips during the AM peak hour and 169 trips during the PM peak hour. A trip generation summary is shown in Table 4-1.

**Table 4-1
Andes Road 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)	170 lots	1694	32	95	106	63

FMA calculated the existing PM peak hour trip distribution on Andes Road in the vicinity of the proposed development. The PM peak hour distribution was 55% northbound and 45% southbound and FMA assumed that the AM peak hour distribution would be 45% northbound and 55% southbound.

The directional distribution of the traffic generated by the Andes Road Subdivision was estimated based on the proximity of the subdivision to Middlebrook Pike. The entering trip distribution is 80% northbound and 20% southbound and the exiting trip distribution is 20% northbound and 80% southbound during both the AM and PM peak hours. Figure 5 shows the peak hour trip distribution for the Andes Road Subdivision.

Figure 6 shows the peak hour site trips generated by the Andes Road Subdivision and Figure 7 shows the projected full buildout peak hour traffic after the completion of the Andes Road Subdivision.

6 Turn Lane Warrant Analysis

The intersection of Andes Road at the 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 a southbound right turn lane nor a northbound left turn lane on Andes Road is warranted. The turn lane warrant worksheets and analysis are included in Attachment 6.

7 Conclusions and Recommendations

7.1 Andes Road @ Driveway Connection

The full buildout conditions at the unsignalized intersection of Andes Road at the driveway connection were analyzed using the Highway Capacity Software (HCS7). Both the eastbound approach and northbound left turn lane operate at a LOS A during both the AM and PM peak hours.

After the completion of the Andes Road Subdivision neither a northbound left turn lane nor a southbound right turn lane are warranted at the intersection of Andes Road at the driveway connection.

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 existing intersection of Andes Road at Old Andes Road in June 2020. At 15 feet from the edge of pavement the sight distance is greater than 500 feet northbound and 415 feet southbound.

The proposed driveway connection (Road "A") will be located approximately 30 feet north of the existing intersection of Andes Road at Old Andes Road. This realignment of Road "A" will continue to comply with the minimum intersection sight distance requirements.

Andes Road is not classified per the Major Road Plan; therefore it is considered a local street. The minimum intersection spacing required on a local street is 125 feet per the "Knoxville-Knox County Subdivision Regulations" amended through February 13, 2020. The existing intersection of Andes Road at Old Andes Road is located approximately 365 feet north of the intersection with Ivywood Lane. This driveway

connection exceeds the typical minimum separation on a local street; therefore, no change is necessary.

7.2 Subdivision Roads

Old Andes Road at the existing intersection of Andes Road has an average width of 12 feet. As a part of the construction of the Andes Road Subdivision an existing portion of Old Andes Road will be widened and renamed Road "A". Road "A" will begin at the intersection of Andes Road and will intersect at Road "Old Andes" at Station 6+14.70. Road "Old Andes" will begin at the intersection of Road "A" and will continue to Station 4+66.37 at which point it will intersect with the existing Old Andes Road.

Road "A" starting at Station 6+14.70 as well the internal subdivision Road "B", Road "C", 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.

The minimum required sight distance for the internal subdivision Road "A", Road "B", Road "C" and Road "E", Road "F" and Old Andes Road will be 250 feet in each direction in accordance with the "Knoxville-Knox County Subdivision Regulations" as amended through February 13, 2020.

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.



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

6/29/2020

August 13, 2020

8-SD-20-C/8-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

Derek, Charles & John Byrd

1617 Andes Road Knoxville, TN 37931

Owner Name (if different)

Owner Address

Owner Phone

1609 Old Andes Road Knoxville, TN 37931, 0 Old Andes Rd.,

105 040, 105 025 & 105 03904

Property Address

0 Andes Rd.

Parcel ID

North of Old Andes Rd, West of Andes Road, South of Troutman Lane

64.1 ac

General Location

Tract Size

W6

PR (<3 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

DEVELOPMENT	<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): _____
SUBDIVISION	<u>ANDES TRACE SUBDIVISION</u> <input checked="" type="checkbox"/> Proposed Subdivision Name _____ Unit / Phase Number _____ <input checked="" type="checkbox"/> Parcel Change <input type="checkbox"/> Combine Parcels <input checked="" type="checkbox"/> Divide Parcel Total Number of Lots Created: _____ <input type="checkbox"/> Other (specify): _____ <input checked="" type="checkbox"/> Attachments / Additional Requirements _____
ZONING	<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): _____

STAFF USE ONLY	PLAT TYPE <input type="checkbox"/> Staff Review <input checked="" type="checkbox"/> Planning Commission	FEE 1: <u>\$ 7,500</u>	TOTAL: <u>\$7,500.00</u>
	ATTACHMENTS <input type="checkbox"/> Property Owners / Option Holders <input type="checkbox"/> Variance Request	FEE 2:	
	ADDITIONAL REQUIREMENTS <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	FEE 3:	

AUTHORIZATION

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

 Applicant Signature	Brian Stephens Please Print	<u>6/29/20</u> Date
859.268.1191 Phone Number	bstephens@ballhomes.com Email	
 Staff Signature	Tarren Barrett Please Print	<u>6/29/2020</u> 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
Byrd, Charles, Derek & John	1617 Andes Rd	Knoxville	TN	37931	x	

VARIANCES REQUESTED



1. Reduce min horizontal curve radius from 250' to 125' for Road "A" from Sta. 1+85.82 to Sta. 3

Justify variance by indicating hardship: Site topography

2. Reduce min horizontal curve radius from 250' to 125' for Road "A" from Sta. 1+85.82 to Sta. 3+09.35

Justify variance by indicating hardship: Site topography

3. Reduce min horizontal curve radius from 250' to 175' for Road "A" from Sta. 5+11.36 to Sta. 9+06.94

Justify variance by indicating hardship: Site topography

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]
Signature

6/29/20
Date