

# SUBDIVISION REPORT - CONCEPT/USE ON REVIEW

► FILE #: 3-SC-22-C AGENDA ITEM #: 18

3-D-22-UR AGENDA DATE: 3/10/2022

► SUBDIVISION: BABELAY SUBDIVISION

▶ APPLICANT/DEVELOPER: ERIC MOSELEY / S & E PROPERTIES, LLC

OWNER(S): Eric Moseley / S & E Properties, LLC

TAX IDENTIFICATION: 50 174, 178, & 171 <u>View map on KGIS</u>

JURISDICTION: County Commission District 8

STREET ADDRESS: 0 & 6513 Babelay Rd.

LOCATION: Northwest side of Babelay Road, east side of Harris Road, west side of

**Link Road** 

SECTOR PLAN: Northeast County

GROWTH POLICY PLAN: Rural Area
WATERSHED: Woods Creek

► APPROXIMATE ACREAGE: 106 acres

ZONING: PR (Planned Residential)

EXISTING LAND USE: Vacant land

▶ PROPOSED USE: Detached residential subdivision

SURROUNDING LAND

North: Agricultural/forestry/vacant and single family residential -- A

USE AND ZONING: (Agricultural)

South: Agricultural/forestry/vacant, rural residential, and single family

residential -- A (Agricultural)

East: Agricultural/forestry/vacant and single family residential -- A

(Agricultural) & PR (Planned Residential)

West: Agricultural/forestry/vacant, rural residential, and single family

residential -- A (Agricultural)

► NUMBER OF LOTS: 262

SURVEYOR/ENGINEER: Eric Moseley / S & E Properties, LLC

ACCESSIBILITY: Access is via Babelay Road, a minor collector with 18 ft of pavement width

within a 40 - 45 ft right-of-way width, and Harris Road, a minor arterial with

17-19 ft of pavement width within 40 ft right-of-way.

**▶** SUBDIVISION VARIANCES

**REQUIRED:** 

ALTERNATIVE DESIGN STANDARDS REQUIRING KNOXVILLE-KNOX

COUNTY PLANNING COMMISSION APPROVAL

1) Reduce the minimum horizontal curve radius from 250 ft to 150 ft on

Road 'C' from STA 29+59.45 to 30+52.45

2) Reduce the minimum horizontal curve radius from 250 ft to 200 ft on

Road 'E' from STA 3+00.95 to 3+75.02

ALTERNATIVE DESIGN STANDARDS REQUIRING KNOX COUNTY

**ENGINEERING AND PUBLIC WORKS APPROVAL** 

- 1) Increase the maximum road grade approach to an intersection from 1 percent to 2 percent for the Road 'A' intersection with Babelay Road 2) Increase the maximum road grade approach to an intersection from
- 1 percent to 2 percent for the Road 'E' intersection with Road' C'

#### STAFF RECOMMENDATION:

▶ Approve alternative design standards 1-2 based on the justifications provided by the applicant and the recommendations of the Knox County Department of Engineering and Public Works, and because the site conditions restrict compliance with the Subdivision Regulations and will not create a traffic hazard.

#### Approve the Concept Plan subject to 13 conditions.

- 1. Connection to sanitary sewer and meeting any other relevant requirements of the utility provider.
- 2. Provision of street names consistent with the Uniform Street Naming and Addressing System within Knox County (County Ord. 91-1-102).
- 3. All sidewalks and crosswalks within the public right-of-way shall meet the applicable ADA standards. The design details shall be worked out with Knox County Engineering and Public Works during the design plan phase.
- 4. Providing the sidewalk and/or pedestrian trail system (pedestrian system) that connects the Babelay Road and Harris Road access points as required by the Knox County Sidewalk Ordinance. Access to the pedestrian system shall be accommodated for all lots within the subdivision utilizing the minimal amount of on-street access as possible on the following road segments; the full length of Road' F', Road 'C' from the Road 'A' intersection to Road 'E' & Road' F' intersection, and the full length of Road 'A'. This access can be accommodated via a combination of sidewalks and additional connections to the proposed walking trail, or entirely with sidewalks on the road segments referenced above. The design details and timing of the installation of the pedestrian system shall be worked out with the Knox County Department of Engineering and Public Works during the design plan stage for the subdivision.
- 5. Implementing the recommendations outlined in the Babelay Subdivision Transportation Impact Analysis prepared by Fulghum MacIndoe (Revised 2/21/2022), as revised and approved by the Knox County Department of Engineering and Public Works and Planning staff (see Exhibit A). The design details and implementation of the recommendations shall be worked out with the Knox County Department of Engineering and Public Works during the design plan stage for the subdivision.
- 6. Providing the 25-ft common area along the Babelay Road and Link Road frontages where the adjacent lots do not meet the double frontage lot depth standard per Section 3.02.A.4. of the Subdivision Regulations.
- 7. Providing a minimum 200-ft sight distance easement as identified on the Concept Plan. The driveway on the lots must be located outside of the sight distance easement and shown on the plat, or the driveway must have a depth of 20-ft beyond the sight distance easement if it cannot be located outside of the sight distance easement.
- 8. Meeting all applicable requirements of the Knox County Zoning Ordinance.
- 9. Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.
- 10. Providing a note on the final plat that all lots will have access to internal streets.
- 11. 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.
- 12. 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, amenities, and drainage system.
- 13. [ADDED 3/8/2022] Harris Road shall be widened to a consistent minimum of 18 feet. In the event of right of way or utility constraints prevent these improvements, the developer shall coordinate with Knox County to install suitable operational improvements such as guardrail, signage, striping, etc., to mitigate the additional traffic volumes.
- ▶ Approve the development plan for 262 detached residential houses on individual lots and the peripheral setback reduction from 35 ft to 25 ft for all double frontage lots with an adjacent 25-ft common area strip along the Babelay Road and/or Link Road frontages, 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 of Use on Review in a PR zoning district.

#### **COMMENTS:**

Condition #13 was added 3/8/2022.

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This proposal is for a 262-lot detached residential subdivision on 105.66 acres at a density of 2.48 du/ac. Access to the site is from Babelay Road (minor collector) and Harris Road (minor arterial). The A 25 ft wide common area is provided for a portion of the Babelay Road and Link Road frontages to meet the double frontage lot standards in the Subdivision Regulations.

#### **AMENITIES**

A walking trail connects two proposed park and amenity areas through the large common open space in the middle of the development.

#### TRANSPORTATION IMPACT STUDY (TIS)

The conclusions and recommendations of the Babelay Subdivision TIA (Fulgham MacIndoe, 2/21/2022) are presented in Exhibit A. The study notes that turn lanes are not warranted at either of the proposed entrances and the development will not significantly impact the Harris Road intersections at Babelay Road or Washington Pike. The TIS did find that the current width of Harris Road ranges from 17-19 ft and recommends that between Babelay Road and Washington Pike the road be widened, resurfaced, striped, etc., in coordination with Knox County Engineering and Public Works (see condition #13).

#### **SIDEWALKS**

The Knox County sidewalk ordinance requires a sidewalk along the Harris Road frontage because the development is within a parental responsibility zone and internal to the development because the road system connects to classified streets. The developer proposes a combination of sidewalks within the right-of-way and walking trails in the common open space to make the pedestrian connection between the two subdivision entrances; however, the current proposal does not provide adequate pedestrian access to the eastern half of the subdivision. Staff is recommending a condition that additional pedestrian accommodations be provided during the design plan phase (see condition #4).

### VARIANCES AND ALTERNATIVE DESIGN STANDARDS

The applicant's engineer listed the requested deviations from the Subdivision Regulations on the Variances/Alternative Design Standards Request form (attached) and the stated hardships for the requests. The Knox County Engineering and Public Works department agree with the requested alternative design standards. The requested for increased intersection grades will be reviewed in more detail during the design plan phase to ensure ADA standards are met where there are crosswalks.

DEVELOPMENT STANDARDS FOR USES PERMITTED ON REVIEW (ARTICLE 4.10 - SECTION 2)

The planning commission, in the exercise of its administrative judgment, shall be guided by adopted plans and policies, including the general plan and the following general standards:

# 1) THE PROPOSED USE IS CONSISTENT WITH THE ADOPTED PLANS AND POLICIES, INCLUDING THE GENERAL PLAN AND SECTOR PLAN.

A. The Northeast County Sector Plan designates this property for low density residential uses with a maximum density 5 du/ac; however, the property is also in the Rural Area on the Growth Policy Plan with a maximum density of 3 du/ac. The proposed development with a density of 2.48 du/ac is consistent with the Sector Plan and the Growth Policy Plan.

B. There are 9.8 acres of this 106-acre property located in the Hillside Protection (HP) area. The maximum land disturbance recommended within the HP area is 5.5 acres (see the attached slope analysis). This proposal will disturb approximately 3.5 acres within the HP area and is consistent with the HP land disturbance guidelines.

# 2) THE USE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ZONING ORDINANCE.

A. The PR (Planned Residential) zone is intended to provide optional methods of land development which encourage more imaginative solutions to environmental design problems. Residential areas thus established would be characterized by a unified building and site development program, open space for recreation and provision for commercial, religious, educational, and cultural facilities which are integrated with the total project by unified architectural and open space treatment. Each planned unit development shall be compatible with the surrounding or adjacent zones. Such compatibility shall be determined by the planning commission by review of the development plans.

B. The proposed subdivision will have detached residential lot sizes comparable to those in existing and recently approved subdivisions in the area.

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- C. The residential lots are clustered to the most suitable portion of the site for homes, leaving a large common area with amenities in the middle of the site.
- D. The property is zoned PR up to 2.5 du/ac, and the proposed subdivision has a density of 2.48 du/ac.
- 3) THE USE IS COMPATIBLE WITH THE CHARACTER OF THE NEIGHBORHOOD WHERE IT IS PROPOSED, AND WITH THE SIZE AND LOCATION OF BUILDINGS IN THE VICINITY.
- A. The proposed subdivision will have detached residential lot sizes and setbacks that are similar to others in the area.
- 4) THE USE WILL NOT SIGNIFICANTLY INJURE THE VALUE OF ADJACENT PROPERTY.
- A. The use of the property for single-family residential should not significantly injure the value of the adjacent properties.
- 5) THE USE WILL NOT DRAW ADDITIONAL TRAFFIC THROUGH RESIDENTIAL AREAS.

A. The development has direct access to Babelay Road (minor collector) and Harris Road (minor arterial).

6) THE NATURE OF DEVELOPMENT IN THE SURROUNDING AREA IS NOT SUCH AS TO POSE A POTENTIAL HAZARD TO THE PROPOSED USE OR TO CREATE AN UNDESIRABLE ENVIRONMENT FOR THE PROPOSED USE.

A. There are no known uses in the area that could be a potential hazard or create an undesirable environment for the proposed residential use.

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: 111 (public school children, grades K-12)

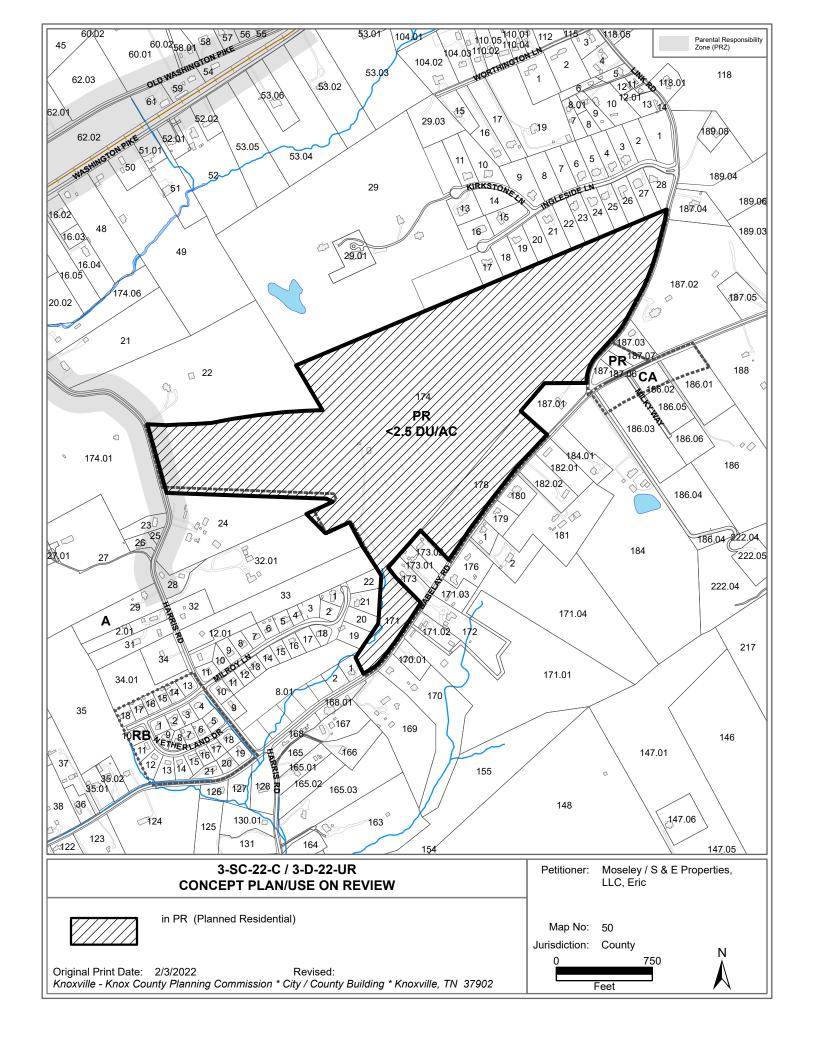
Schools affected by this proposal: Ritta Elementary, Holston Middle, and Gibbs High.

- 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.

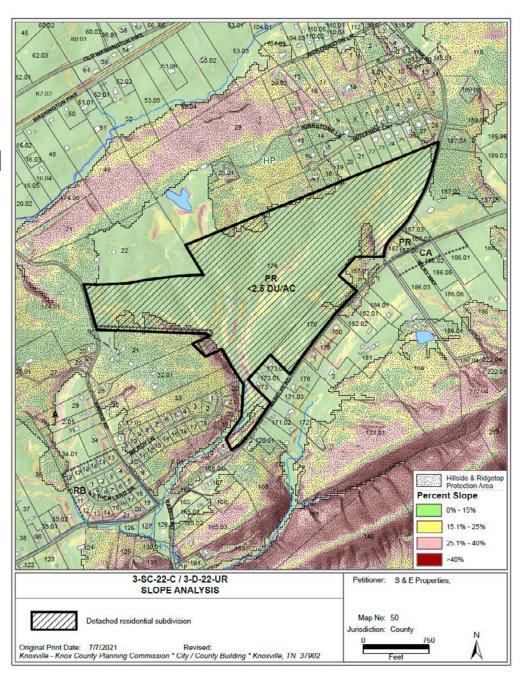
Knoxville-Knox County Planning Commission's approval or denial of this use on review request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed.

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Staff - Slope Analysis Case: 3-SC-22-C / 3-D-22-UR

CATEGORY	ACRES	RECOMMENDED DISTURBANCE BUDGET (Percent)	DISTURBANCE AREA (Acres)
Non-Hillside	96.77	100%	96.8
0-15% Slope	2.71	100%	2.7
15-25% Slope	4.6	50%	2.3
25-40% Slope	2.05	20%	0.4
Greater than 40% Slope	0.43	10%	0.0
Ridgetops	0		
Subtotal: Sloped Land	9.79	Recommended disturbance budget within Hillside Protection Area (acres)	5.5
Total Acreage	106.56		



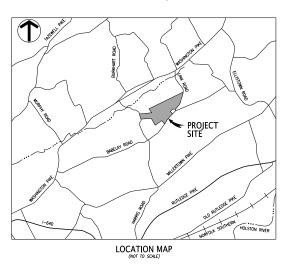
# **VARIANCES REQUESTED**

provisions of Tennessee Code Annotated 13-3-404.

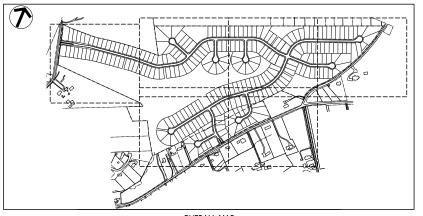


1. Reduce Minimum Horizontal Curve Radius from 250-ft to 150-ft for F	Road "C" from STA 29 + 59.45 to STA 30 + 52.45.
Justify variance by indicating hardship: Site Topography	
Increase maximum road grade approach at intersection from 1.00% to     Justify variance by indicating hardship: Site Topography	o 2.00% for Road "A" intersection with Babelay Road.
3. Increase maximum road grade approach at intersection from 1.00% to Justify variance by indicating hardship: Site Topography	2.00% for Road "E" intersection with Road "C".
4. Reduce minimum horizontal curve from 250ft to 200ft for Road "E" following Justify variance by indicating hardship: Site Topography	from STA 3+00.95 to STA 3+75.02
5 Justify variance by indicating hardship:	
6 Justify variance by indicating hardship:	
7	
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 Appotated 13-3-404.	Signature 3-3-22 Date

# BABELAY SUBDIVISION 6513 BABELAY ROAD KNOX COUNTY, TENNESSEE



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C4	В	02/22/22	CONCEPT LAYOUT AND PAVING PLAN
C5	в	02/22/22	CONCEPT LAYOUT AND PAVING PLAN
C6	В	02/22/22	CONCEPT LAYOUT AND PAVING PLAN
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C10	в	02/22/22	CONCEPT GRADING PLAN
C11	В	02/22/22	CONCEPT GRADING PLAN
C12	в	02/22/22	CONCEPT GRADING PLAN
C13	В	02/22/22	CONCEPT GRADING PLAN
C14	В	02/22/22	ROAD PROFILES
C15	в	02/22/22	ROAD PROFILES
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10330 HARDIN VALLEY ROAD SUITE 201 KNOXVILLE, TN 37932 OFFICE: 865.690.6419 FAX: 865.690.6448

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COVER SHEET AND INDEX

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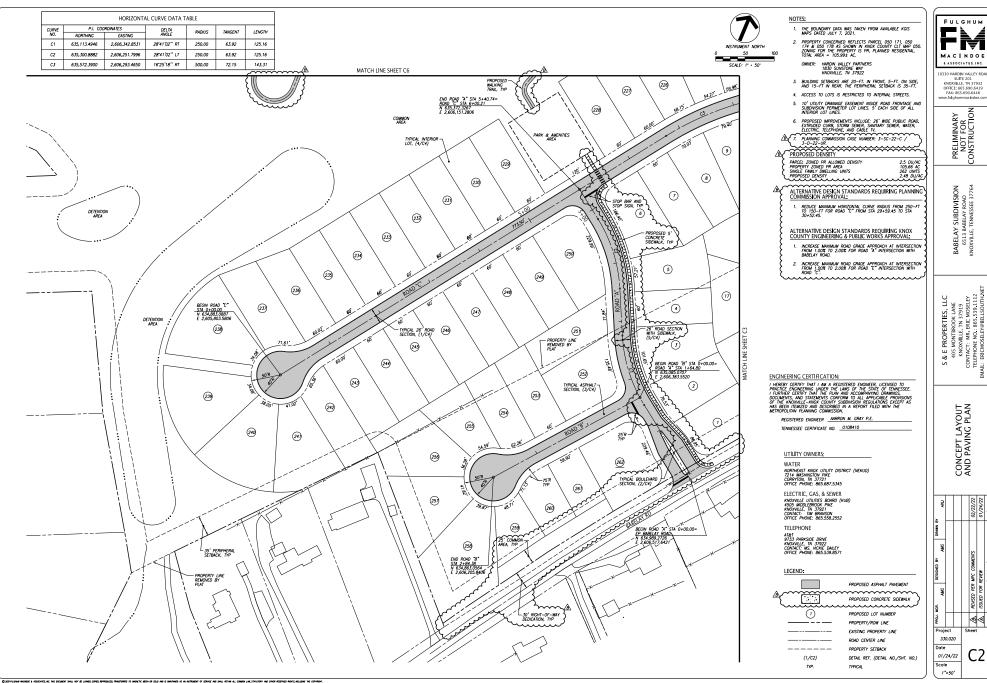
BABELAY SUBDIVISION 6513 BABELAY ROAD KNOXVILLE, TENNESSEE 37764

OVERALL CONCEPT LAYOUT AND PAVING PLAN

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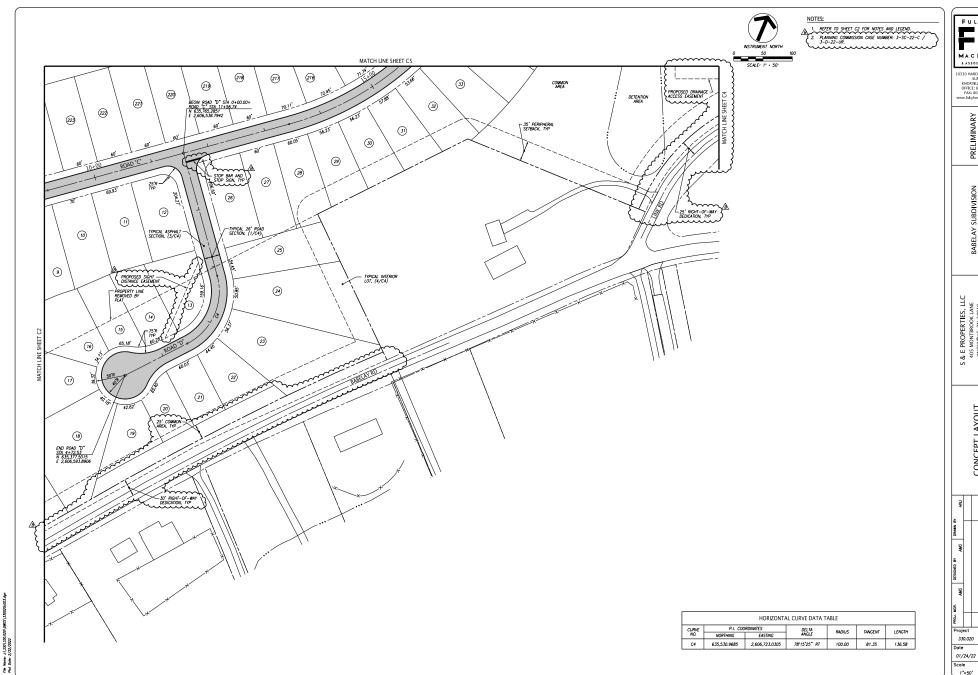
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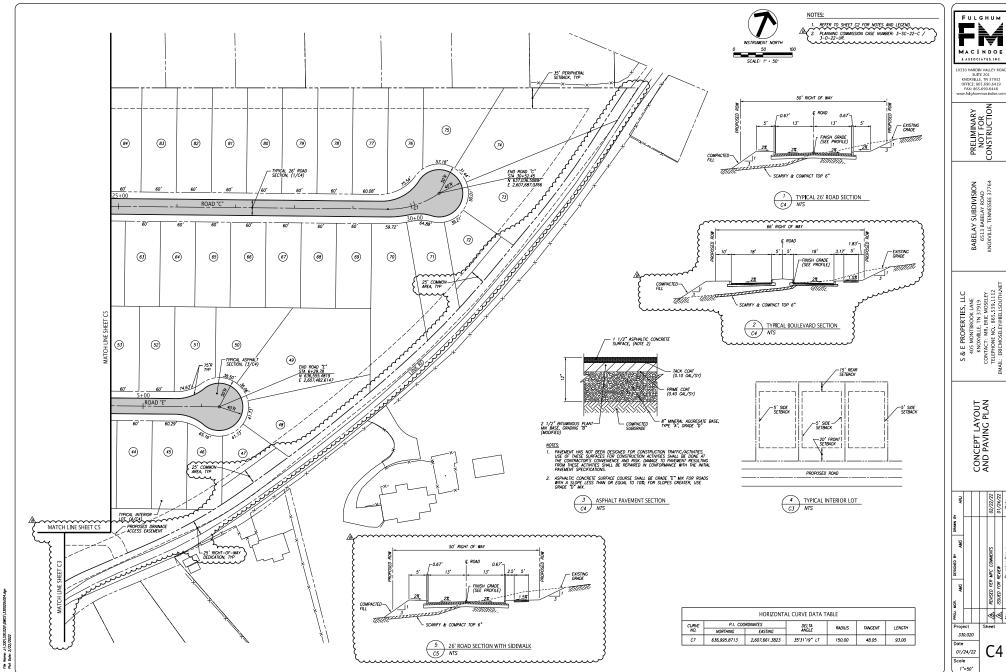
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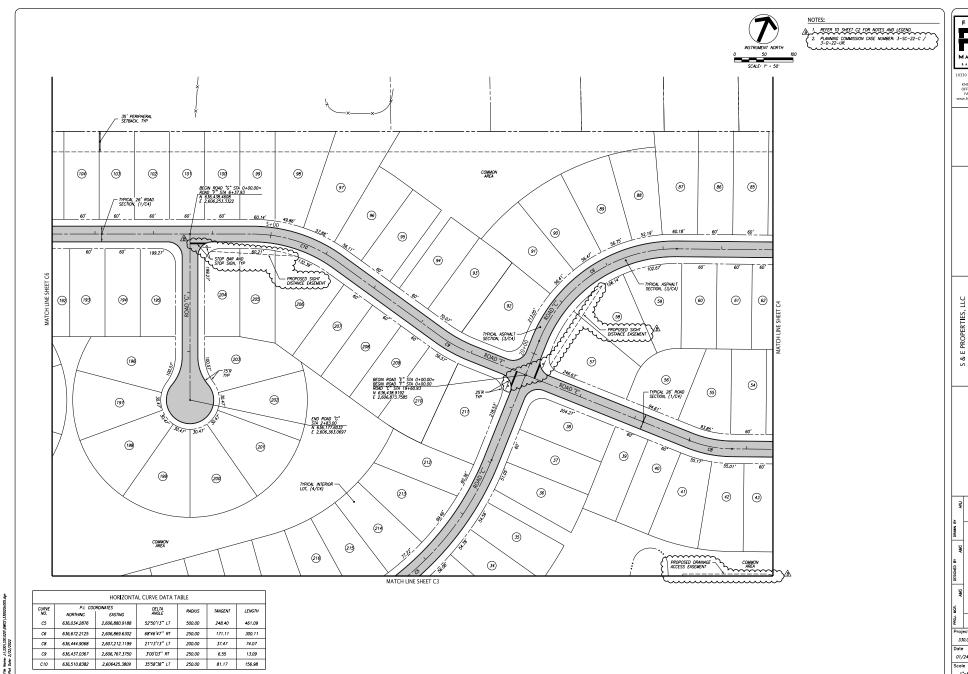
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CONCEPT LAYOUT AND PAVING PLAN





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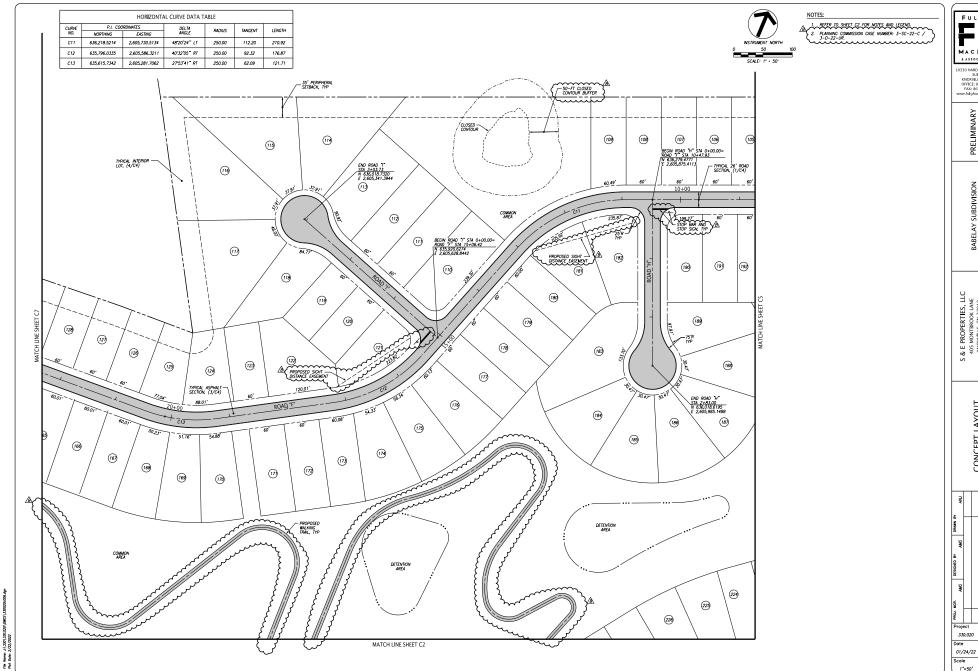
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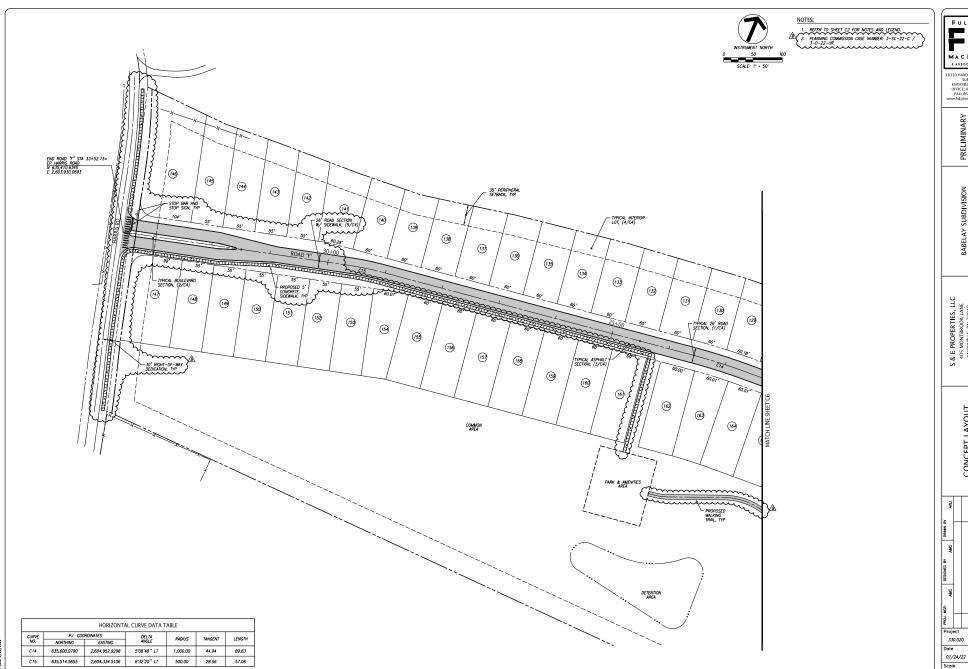
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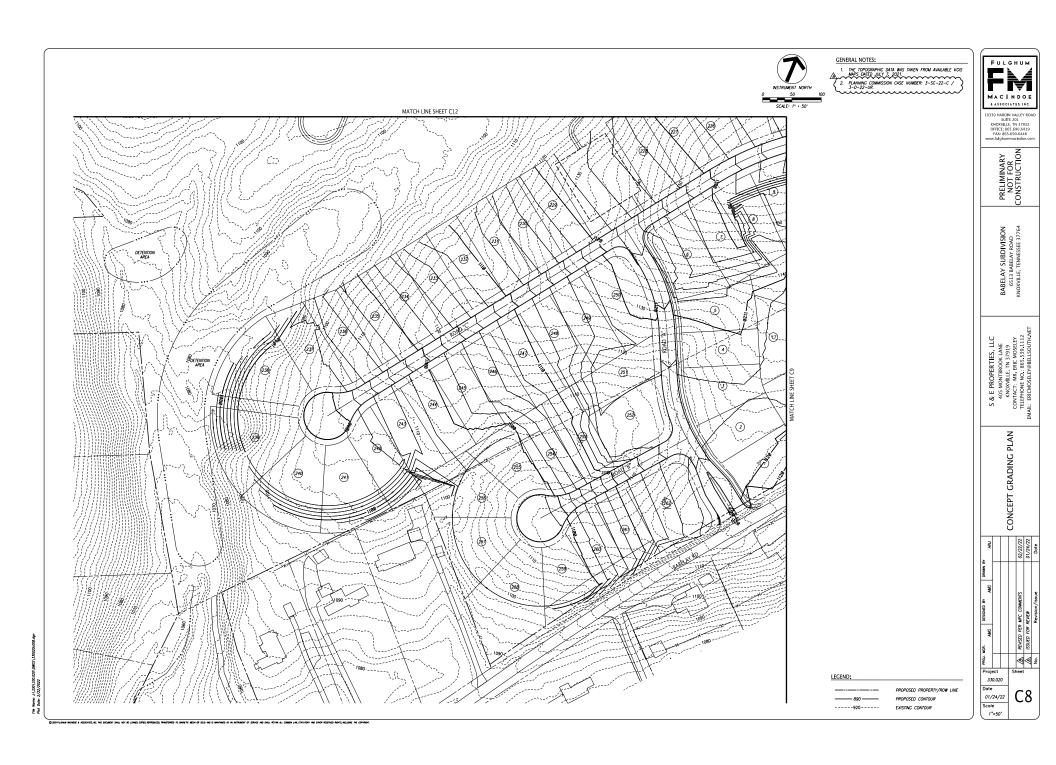
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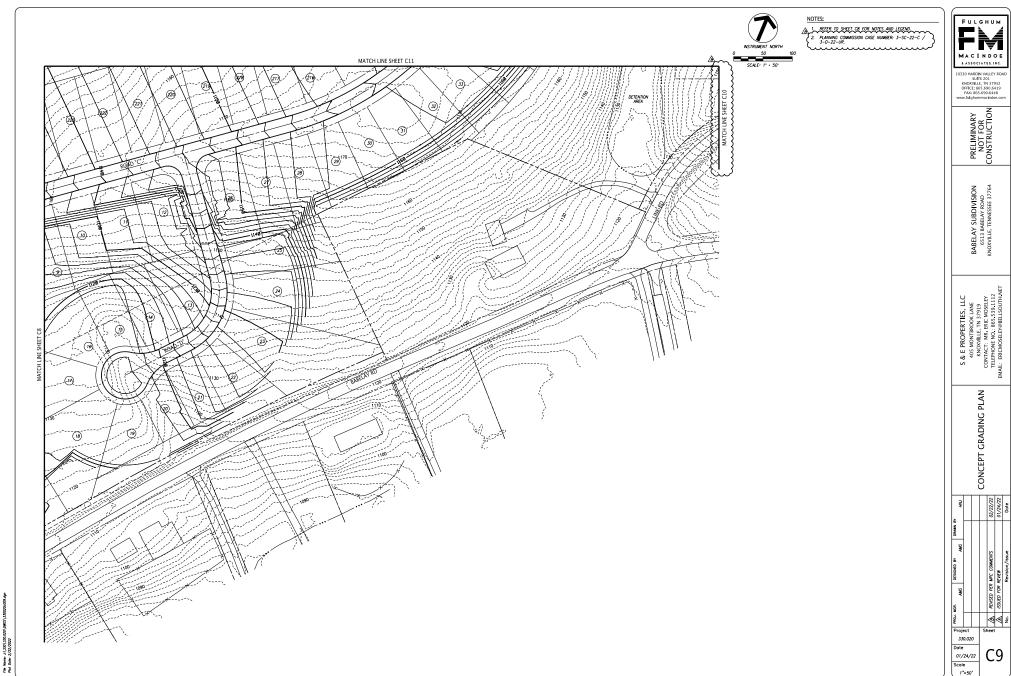
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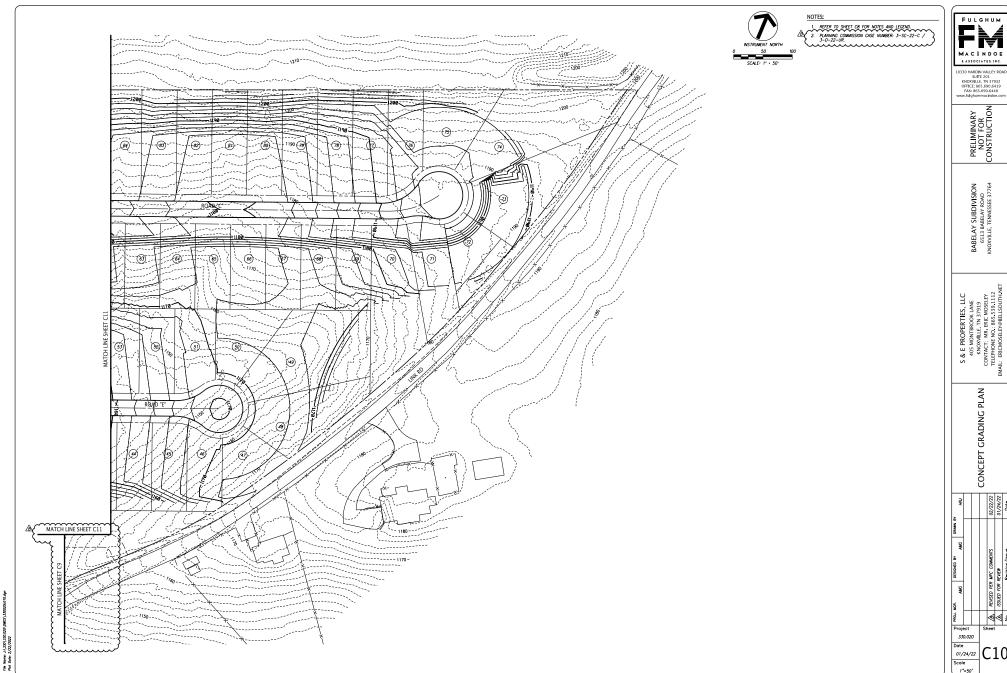
CONCEPT LAYOUT AND PAVING PLAN

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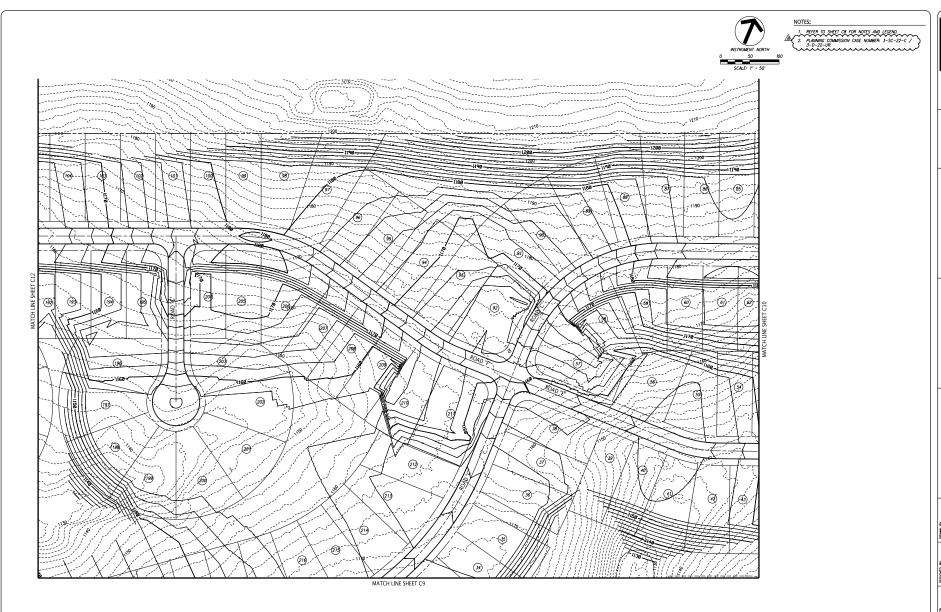






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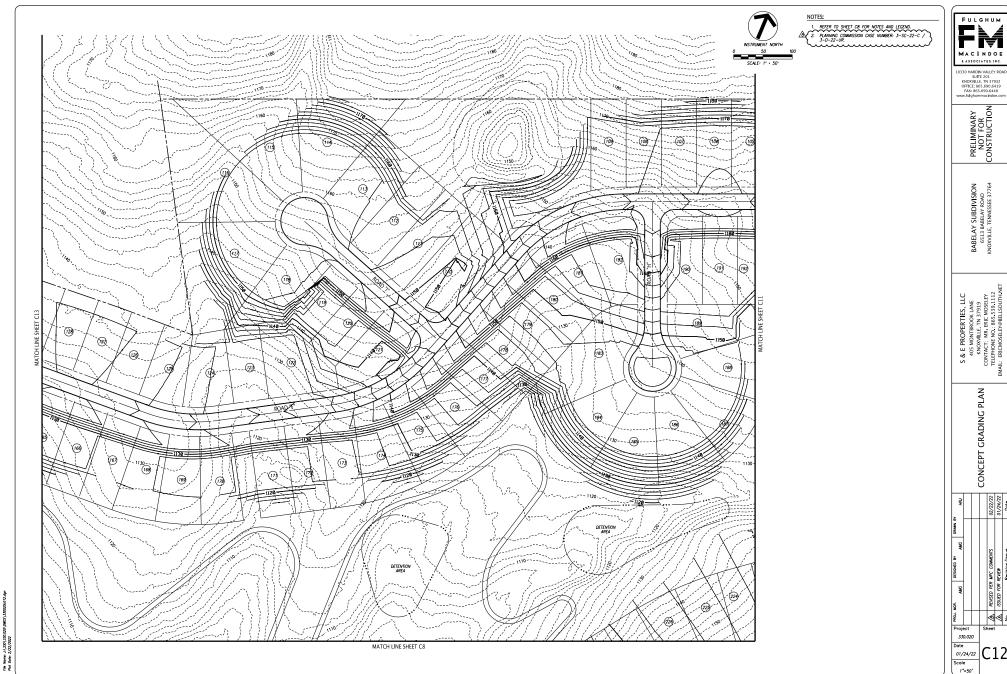
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EMAIL: ENICMOSELEY@BELLSOUTH.NET

CONCEPT GRADING PLAN

| 22 | 2000 | 22 | 2000 | 22 | 2000 | 22 | 2000 | 22 | 2000 | 22 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000

1"=50"

home: J-130/330.020/0405/330020c01 Johe: 2/22/2022



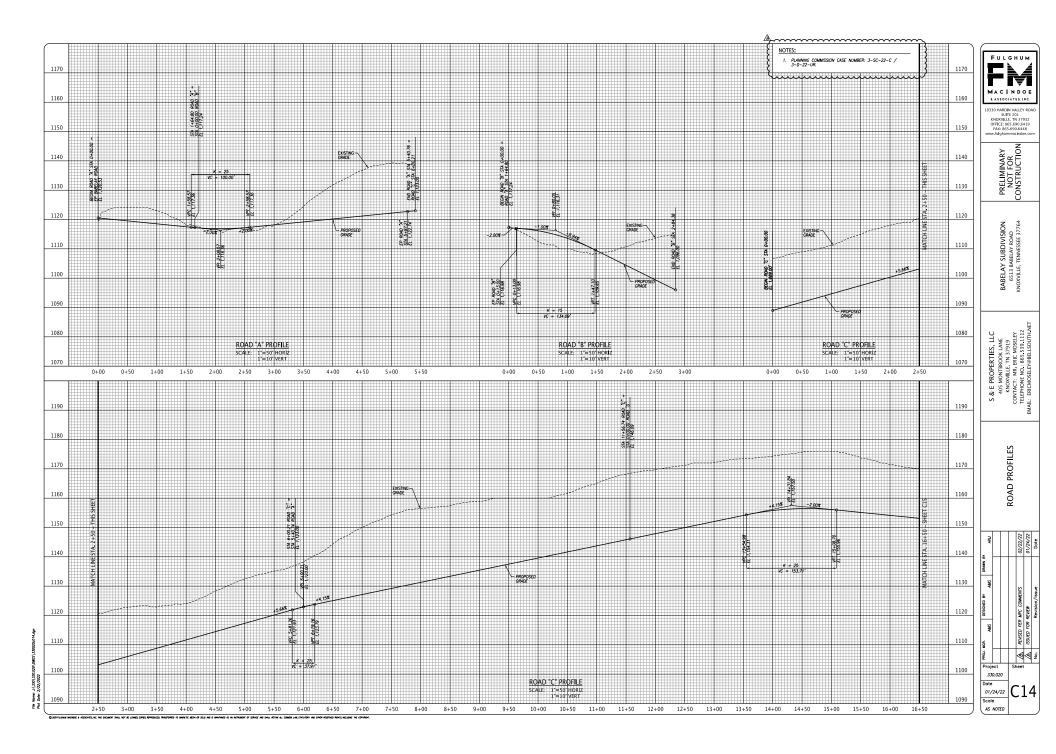


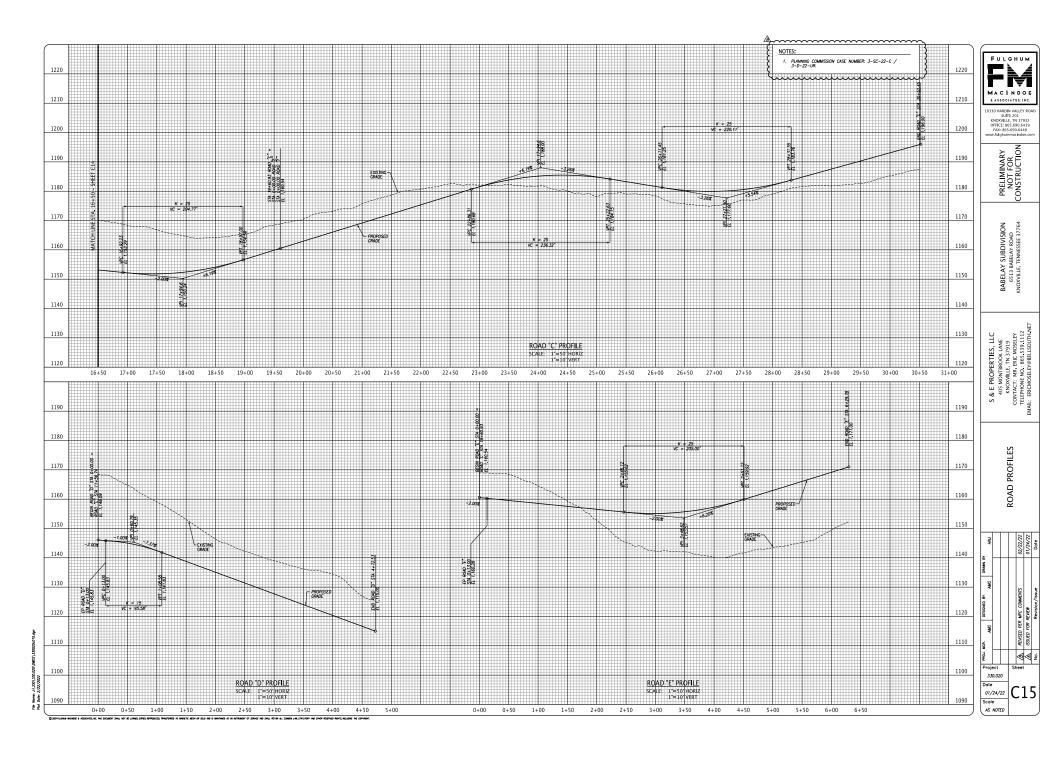
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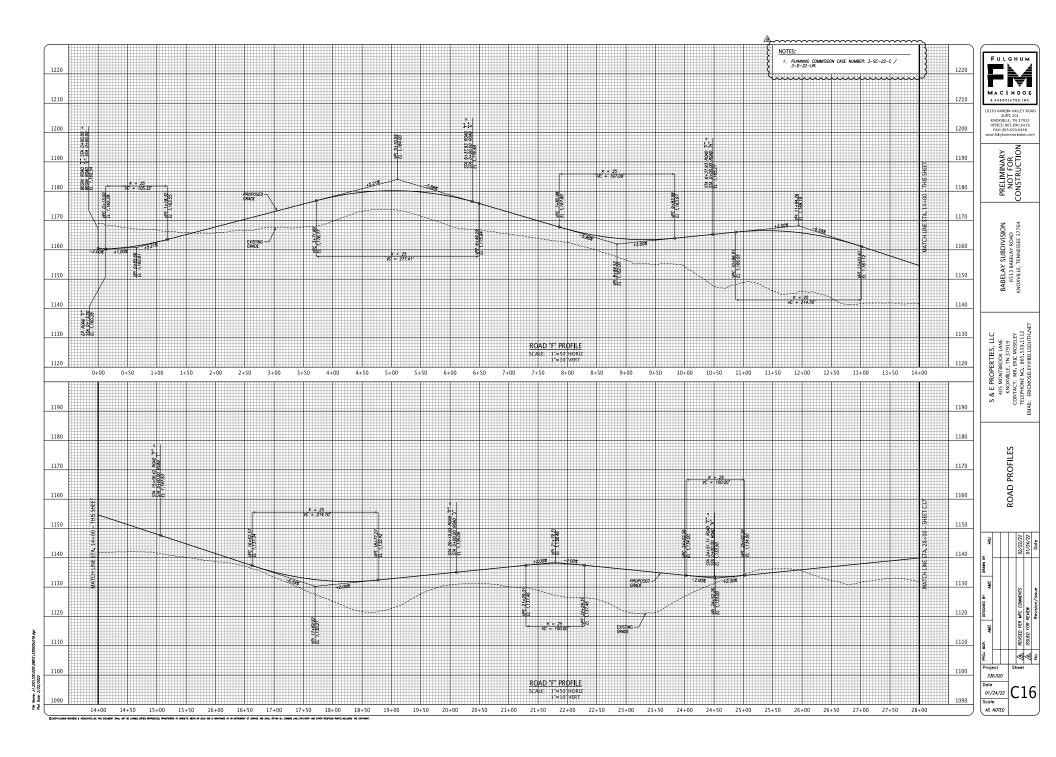
10330 HARDIN VALLEY ROAD SUITE 201 KNOXVILLE, TN 37932 OFFICE: 865.690.6419 FAX: 865.690.6448 www.fulghummacindoe.com

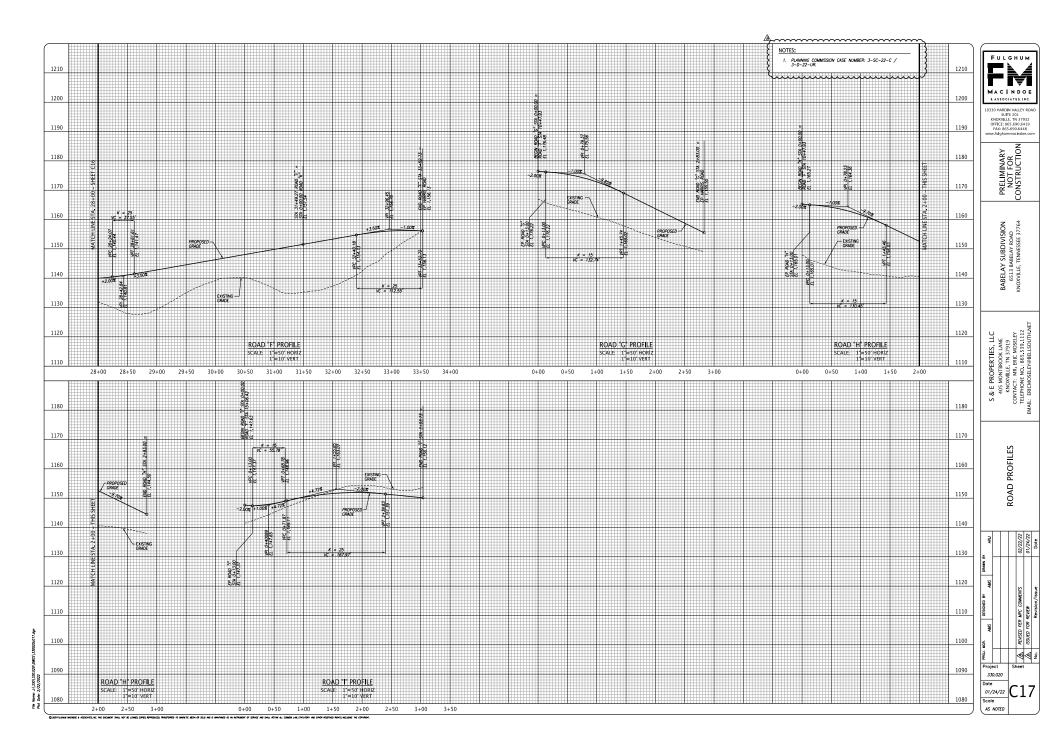
PRELIMINARY NOT FOR CONSTRUCTION

44 5









# **BABELAY SUBDIVISION**

# Transportation Impact Analysis Babelay Road Knoxville, TN

# A Transportation Impact Analysis for the Babelay Subdivision

Submitted to

# **Knoxville - Knox County Planning**

Revised February 21, 2022 January 21, 2022 FMA Project No. 330.020

Submitted By:





3-SC-22-C / 3-D-22-UR TIS Version 2 2/21/2022

Babelay Subdivision Transportation Impact Analysis February 21, 2022

# **6** Turn Lane Warrant Analysis

The intersections of Babelay Road at Harris Road, Harris Road at Washington Pike, Babelay Road at driveway connection (Road "A") and Harris Road at driveway connection (Road "F") were evaluated to determine if right or left turn lanes are warranted. The Knox County Department of Engineering and Public Works handbook, "Access Control and Driveway Design Policy," was used to analyze the information.

There are no turn lanes warranted on Babelay Road, Harris Road or Washington Pike after the full buildout of the Babelay Subdivision.

The turn lane warrant worksheets and analysis are included in Attachment 8.

# 7 Conclusions and Recommendations

# 7.1 Babelay Road @ Harris Road

The existing, background and full buildout conditions at the unsignalized intersection of Babelay Road at Harris Road were analyzed using the Highway Capacity Software (HCS7). The northbound and southbound approaches of Harris Road are separated by a distance of 100 feet but the intersection was analyzed as a four-way intersection that is stop controlled on the minor approaches (Harris Road).

The existing and background traffic conditions for the eastbound and westbound approaches (Babelay Road) operate at a LOS A during both the AM and PM peak hours and the northbound and southbound approaches (Harris Road) operate at a LOS B during the AM peak hour and LOS A during the PM peak hour.

After the completion of the full buildout of the Babelay Subdivision the traffic conditions for the intersection of Babelay Road at Harris Road will operate as follows. The eastbound and westbound approaches (Babelay Road) will operate at a LOS A during both the AM and PM peak hours. The northbound and southbound approaches (Harris Road) will operate at a LOS B during both the AM and PM peak hours.

There are no turn lanes warranted on either Babelay Road eastbound or Babelay Road westbound per the Knox County Department of Engineering and Public Works handbook, "Access Control and Driveway Design Policy."

### **EXHIBIT A**

Babelay Subdivision Transportation Impact Analysis February 21, 2022

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 intersections of Babeley Road at Harris Road (northbound) and Babelay Road at Harris Road (southbound) in November 2021.

At 15 feet from the edge of pavement the existing sight distance at the intersection of Babelay Road at Harris Road (northbound) is approximately 300 feet looking east and greater than 350 feet looking to the west. The sight distance looking to the east is partially blocked due to the existing trees and vegetation located within the right-of-way.

At 15 feet from the edge of pavement the existing sight distance at the intersection of Babelay Road at Harris Road (southbound) is greater than 350 looking to the east and greater than 350 feet looking to the west.

Attachment 9 shows pictures of the existing intersection sight distance at both intersections of Babelay Road at Harris Road.

# 7.2 Washington Pike @ Harris Road

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

The existing and background traffic conditions for the westbound approach (Washington Pike) operates at a LOS A during both the AM and PM peak hours and the northbound approach (Harris Road) operates at a LOS C during the AM peak hour and LOS B during the PM peak hour.

After the completion of the full buildout of the Babelay Subdivision the traffic conditions for the intersection of Washington Pike at Harris Road will operate as follows. The westbound approach (Washington Pike) will operate at a LOS A during both the AM and PM peak hours. The northbound approach (Harris Road) will operate at a LOS D during the AM peak hour and a LOS C during the PM peak hour.

An eastbound right turn lane and a westbound left turn lane on Washington Pike are not warranted per the Knox County Department of Engineering and Public Works handbook, "Access Control and Driveway Design Policy."

The 95% queue length is defined as the queue length that has only a 5-percent probability of being exceeded during the analysis time period. The 95% queue length is typically used to determine the length of turning lanes in order to minimize the risk of blockage.

### **EXHIBIT A**

Babelay Subdivision Transportation Impact Analysis February 21, 2022

The unsignalized intersection capacity analysis shows the full buildout 95% queue length for the northbound approach (Harris Road) of 1.7 car lengths during the AM peak hour and less than one length during the PM peak hour; therefore, the existing storage at the intersection is adequate and no improvements are necessary in order to accommodate the Babelay Subdivision residential development.

The minimum required sight distance for a road with a posted speed limit of 45 mph is 450 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 Washington Pike at Harris Road in November 2021. At 15 feet from the edge of pavement the sight distance at the existing intersection is greater than 500 feet both looking to the east and looking to the west.

# 7.3 Babelay Road at Driveway Connection (Road "A")

The full buildout conditions at the unsignalized intersection of Babelay Road at the driveway connection (Road "A") were analyzed using the Highway Capacity Software (HCS7).

After the completion of the full buildout of the Babelay Subdivision the traffic conditions for the eastbound approach (Babelay Road) operate at a LOS A during both the AM and PM peak hours and the traffic conditions for the southbound approach (Road "A") operate at a LOS A during both the AM and PM peak hours.

An eastbound left turn lane and a westbound right turn lane on Babelay Road are not warranted per the Knox County Department of Engineering and Public Works handbook, "Access Control and Driveway Design Policy."

Babelay Road is classified as a Minor Collector by the Major Road Plan. The minimum intersection spacing required on a collector street is 300 feet per the "Knoxville-Knox County Subdivision Regulations" amended through February 13, 2020. The driveway connection (Road "A") is located approximately 1,215 feet west of Link Road and exceeds 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 45 mph is 450 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 intersection of Babelay Road at the driveway connection (Road "A") in November 2021. At 15 feet from the edge of pavement the proposed sight distance is greater than 500 feet both looking to the east and looking to the west.

Babelay Subdivision Transportation Impact Analysis February 21, 2022

# 7.4 Harris Road at Driveway Connection (Road "F")

The full buildout conditions at the unsignalized intersection of Harris Road at the driveway connection (Road "F") were analyzed using the Highway Capacity Software (HCS7).

After the completion of the full buildout of the Babelay Subdivision the traffic conditions for the southbound approach (Harris Road) operate at a LOS A during both the AM and PM peak hours and the traffic conditions for the westbound approach (Road "F") operate at a LOS A during both the AM and PM peak hours.

A southbound left turn lane and a northbound right turn lane on Harris Road are not warranted per the Knox County Department of Engineering and Public Works handbook, "Access Control and Driveway Design Policy."

Harris Road is classified as a Minor Arterial by the Major Road Plan. The minimum intersection spacing required on an arterial is 400 feet per the "Knoxville-Knox County Subdivision Regulations" amended through February 13, 2020. The driveway connection (Road "F") is located approximately 1,960 feet north of Milroy Lane and exceeds the typical minimum separation on an arterial; 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 intersection of Harris Road at the driveway connection (Road "F") in November 2021. At 15 feet from the edge of pavement the proposed sight distance is approximately 330 feet looking to the north and 380 feet looking to the south.

# 7.5 Roadway Network

FMA conducted field measurements of the width of Harris Road between Babelay Road and Washington Pike at approximate 500 foot intervals. The result was a width that varies between 17 feet and 19 feet with an overall average width of 18 feet. Attachment 10 includes the Harris Road width measurements.

FMA recommends any improvements on Harris Road between Babelay Road and Washington Pike including road widening, resurfacing, striping plan, etc. be coordinated with Knox County Engineering and Public Works.

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

# **EXHIBIT A**

Babelay Subdivision Transportation Impact Analysis February 21, 2022

Any required sight distance easements for the internal subdivision intersections of Road "A", Road "B", Road "C" Road "D", Road "E", Road "F", Road "G", Road "H" and Road "I" 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 SUBDIVISION ZONING

Planning KNOXVILLE I KNOX COUNTY	<ul><li>Development Plan</li><li>☐ Planned Development</li><li>☑ Use on Review / Special Use</li><li>☐ Hillside Protection COA</li></ul>	■ Concept Plan  ☐ Final Plat	☐ Plan Amendment☐ SP☐ OYP☐ Rezoning	
Eric Moseley, S&E Properties,	LLC	Ow	ner	
Applicant Name		Affili	ation	
1/24/2022	3/10/2022	3-SC	File Number(s)	
Date Filed	Meeting Date (if applicable)	3-D-2	22-UR	
CORRESPONDENCE All o	orrespondence related to this application	should be directed to the	approved contact listed below.	
☐ Applicant ■ Property Owner	☐ Option Holder ☐ Project Survey	or 🗌 Engineer 🗌 Ard	chitect/Landscape Architect	
Eric Moseley	S&E	Properties, LLC		
Name	Comp	pany		
405 Montbrook Lane	Kno	xville TN	37919	
Address	City	State	ZIP	
(865) 539-1112	ericmoseley@bellsouth.ne	t		
Phone	Email			
CURRENT PROPERTY INFO				
S & E Properties	405 Montbrook Lar	ne	(865) 539-1112	
Property Owner Name (if different)	Property Owner Addres	s	Property Owner Phone	
& 6513 Babelay Road Knoxville,	TN 37924	050-174, 050-178,	050-171	
Property Address		Parcel ID		
KUB	NEKUD		N	
Sewer Provider	Water Provider		Septic (Y/N)	
STAFF USE ONLY				
Northwest side of Babelay Ro	oad, east side of Harris Road, wes	st side of Link Road	106 acres	
General Location		Tract	Size	
Sth. St.	PR (Planned Residential)	Vacant land	*	
☐ City ☐ County ☐ District	Zoning District	Existing Land Use		
Northeast County	LDR & HP	R	ural area	
Planning Sector	Sector Plan Land Use Classification		th Policy Plan Designation	

Development Plan Use on Review / Special Use Hillsi Residential Non-Residential Home Occupation (specify) Single Family Residential	Related City Permit Number(s)	
Other (specify)		
SUBDIVISION REQUEST		
Babelay Subdivision		Related Rezoning File Number
roposed Subdivision Name  1	262	
Unit / Phase Number  Other (specify)	Total Number of Lots Created	
Attachments / Additional Requirements		
ZONING REQUEST		
ZONING REQUEST		Pending Plat File Number
Zoning Change Proposed Zoning		
Plan Amendment Change		
Proposed Plan Designation(s)		
Proposed Density (units/acre) Previous Rezoning Re	equests	
Other (specify)		
STAFF LISE CALLY		
STAFF USE ONLY PLAT TYPE	Fee 1	Total
☐ Staff Review ☐ Planning Commission	400	iotai
ATTACHMENTS	108	
Property Owners / Option Holders	Fee 2	\$8,360
ADDITIONAL REQUIREMENTS	j j	φο,σσο
Design Plan Certification (Final Plat)		
Use on Review / Special Use (Concept Plan)	Fee 3	
Traffic Impact Study		
COA Checklist (Hillside Protection)		
AUTHORIZATION		
May Scott Sun, Eric-Mosel	y, S&E Properties, LLC	1/24/22
pplicant Signature Please Print	**************************************	Date
2.50 L.50 L.50 L.50 L.50 L.50 L.50 L.50 L	y@bellsouth.net	
865) 539-1112 ericmosele	y@bellsouth.net	
865) 539-1112 ericmosele	y@bellsouth.net	1/24/22 swm/1-2