



SUBDIVISION REPORT - CONCEPT/DEVELOPMENT PLAN

► **FILE #:** 8-SG-26-C

AGENDA ITEM #: 30

8-F-26-DP

AGENDA DATE: 8/13/2026

► **SUBDIVISION:** 0 MARYVILLE PIKE

► **APPLICANT/DEVELOPER:** MESANA INVESTMENTS, LLC

OWNER(S): Mesana Investments LLC

TAX IDENTIFICATION: 135 02202, 02212, 04602

[View map on KGIS](#)

JURISDICTION: County Commission District 9

STREET ADDRESS: 0 Goff Rd. (0 Maryville Pike, 0 Berry Rd)

► **LOCATION:** West side of Maryville Pike, south of Maloney Rd

GROWTH POLICY PLAN: Planned Growth Area

FIRE DISTRICT: Rural Metro Fire

WATERSHED: Knob Creek

► **APPROXIMATE ACREAGE:** 76.5

► **ZONING:** PR(k) (Planned Residential) up to 2 du/ac with conditions and PR (Planned Residential) up to 4 du/ac

PLACE TYPE: SR (Suburban Residential), HP (Hillside Protection), SP (Stream Protection)

► **EXISTING LAND USE:** Agriculture/Forestry/Vacant Land

► **PROPOSED USE:** Multi-dwelling development

SURROUNDING LAND USE AND ZONING: North: Public/quasi-public land (church), rural residential, agriculture/forestry/vacant land - RAE (Exclusive Residential), A (Agricultural), RB (General Residential)

South: Single family residential, agriculture/forestry/vacant land, rural residential - PR (Planned Residential) up to 4 du/ac, A (Agricultural)

East: Agriculture/forestry/vacant land, rural residential, single family residential - A (Agricultural), PR (Planned Residential) up to 4 du/ac

West: Single family residential, agriculture/forestry/vacant land, private recreation, multifamily residential - A (Agricultural), RB (General Residential), OB (Office, Medical, and Related Services), PR (Planned Residential) up to 4 du/ac

► **NUMBER OF LOTS:** 1

SURVEYOR/ENGINEER: Chris Sharp; Urban Engineering

ACCESSIBILITY: Access is via Maryville Pike, a minor arterial street with 38 ft of pavement width within 74 ft of right-of-way.

► **SUBDIVISION VARIANCES REQUIRED:** VARIANCES: None.

**ALTERNATIVE DESIGN STANDARD REQUIRING PLANNING
COMMISSION APPROVAL:**

Increase the grade from 12% to 12.92% on Road B, a private street.

**ALTERNATIVE DESIGN STANDARD REQUIRING KNOX COUNTY
ENGINEERING AND PUBLIC WORKS APPROVAL (PLANNING
COMMISSION APPROVAL NOT REQUIRED):**

1. None.

STAFF RECOMMENDATION:

- **Approve the alternative design standard based on the justification provided by the applicant and recommendations of the Knox County Department of Engineering and Public Works.**

Approve the Concept Plan subject to 14 conditions.

1. Connection to sanitary sewer and meeting other relevant utility provider requirements.
2. Provision of street names consistent with the uniform street naming and addressing system within Knox County (County Ord. 91-1-102).
3. Before certification of the final plat for the subdivision, establishing a property owners association or other legal entity responsible for maintaining common facilities, such as common areas, amenities, private roads, and/or stormwater drainage systems.
4. Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.
5. Meeting all applicable requirements of the Knox County Zoning Ordinance, including the condition of the rezoning 8-C-24-RZ: land disturbance within the HP (Hillside Protection) Area shall not exceed the recommended disturbance budget of the slope analysis based on the area of development identified during the development plan review, unless approved by the Planning Commission.
6. If during design plan approval or construction of the development, it is discovered that unforeseen off-site improvements within the right-of-way are necessary as caused by the development, the developer will either enter into a memorandum of understanding (mou) with the county for these improvements or reimburse the county for their direct expenses (if completed by county crews) to make corrections deemed necessary.
7. Providing a sight distance easement through the horizontal curve radius less than 250 ft per the requirements of Knox County Engineering and Public Works during the design plan phase. Any driveways that cannot be located outside the sight distance easement must have a 20-ft depth outside the sight distance easement.
8. Providing a sidewalk along the entire length of Road A. The sidewalk shall meet ADA standards.
9. Providing the required buffer for the stream that is located between lots 199 and 198 unless this drainage way connecting the two existing ponds is determined to be a "wet weather conveyance".
10. Implementing the conclusions and recommendations of the Sevier Meadows – Phase 2 Subdivision Transportation Impact Study (TIS) (Ajax Engineering, revised august 26, 2025) as required by Knox County Engineering and Public Works and the Tennessee Department of Transportation during permitting. See Exhibit B. If the TIA is further revised, it must be submitted to planning staff for review and approval by all applicable agencies.
11. No more than 11 units can receive Certificates of Occupancy before the turn lane recommendation of the TIS have been completed.
12. Providing the acreage for the parcels zoned PR (Planned Residential) up to 4 du/ac and 2 du/ac separately during permitting. The maximum number of dwelling units on the property zoned PR up to 4 du/ac is 242 units and 13 units is the maximum number of dwellings allowed on the property zoned PR (k) up to 2 du/ac. The density calculation includes the right-of-way dedication for the maximum number of lots allowed in the PR up to 2 du/ac zone.
13. Meeting the land disturbance limitations on the parcel zoned PR(k) (Planned Residential) up to 2 du/ac per condition of rezoning approval (8-C-24-RZ/8-E-24-PA) during permitting. Planning staff can review and approve minor adjustments to the disturbance limitation line, provided the overall development does not exceed the maximum allowed land disturbance.
14. Obtaining any permits required by the Tennessee Department of Transportation.

- **Approve the development plan for up to 255 multi-dwelling development, subject to 4 conditions.**

1. Meeting all applicable requirements of the Knox County Zoning Ordinance.
2. The maximum height will be 35 ft for attached houses.
3. Implementing reforestation of graded slopes and/or reducing the grading shown on the plan to comply with the recommended land disturbance of 21.37 acres, as shown in the slope analysis for the entire property. The Knox County Department of Engineering and Public Works will review and approve the timing for the tree

planting installation during the design plan phase.

4. Density in the PR (Planned Residential) up to 2 du/ac zoned area shall not exceed the allowable density.

With the conditions noted, this plan meets the requirements for approval in the PR zone and the criteria for approval of a development plan.

COMMENTS:

The applicant is requesting approval of a revision to a residential subdivision (9-SB-25-C/9-F-25-DP) featuring 132 townhome lots and 127 single-family units, for a total of 259 units. The previous approval had the units on individual lots. This plan will have 255 units of townhomes, duplexes, and single family style homes all on one lot.

The development utilizes a boulevard entrance road, and a sidewalk is provided on one side of the entire length of Road A per the Knox County Sidewalk Ordinance. The road design is unchanged but will be private instead of public roads.

The Sevier Meadows -Phase 2 (0 Maryville Pike) Subdivision Transportation Impact Study (TIS) concludes that a southbound left turn lane is warranted once the 12th housing unit is constructed (see Exhibit B).

DEVELOPMENT PLAN ANALYSIS PER ARTICLE 6, SECTION 6.50.06 (APPROVAL OR DENIAL)

In the exercise of its administrative judgment, the Planning Commission shall determine if the proposed plan is in harmony with the general purpose and intent of the zoning ordinance and adopted plans.

1) ZONING ORDINANCE

A. The property is zoned PR (Planned Residential) with a density of up to 2 du/ac, subject to 1 condition and PR (Planned Residential) with a density of up to 4 du/ac. There are 2 separate zoning boundaries on the property. Approximately 6.5 acres along the entrance road is zoned PR (k) up to 2 du/ac and the rest of the 70 acres is PR up to 4 du/ac. Only 13 units are allowed within the area zoned PR up to 2 du/ac. There is an additional condition not to disturb over the recommended disturbance budget of 2.3 acres. The applicant has proposed a built-out density of 2.3 du/ac. There are 70 acres zoned with a density of up to 4 du/ac where the applicant is proposing a built-out density of 3.5 du/ac.

B. The PR zone allows attached and detached homes as a permitted use. The administrative procedures for the PR zone require the Planning Commission to approve the development plan before permits can be issued (Knox County Zoning Ordinance Article 5, Section 5.13.15).

C. The height of attached houses shall be determined by the Planning Commission. Staff recommends a 35-ft maximum height, which is consistent with the maximum height allowed in the adjacent zone districts.

2) KNOX COUNTY COMPREHENSIVE PLAN – FUTURE LAND USE MAP

A. The property is in the SR (Suburban Residential) place type and is within the HP (Hillside Protection) and SP (Stream Protection) areas on the Future Land Use Map. The housing mix consists of attached residential uses such as duplexes, multiplexes, and townhomes that have the scale of a single family home. This plan will have 255 units of townhomes, duplexes, and single family style homes all on one lot. Building elevations have not been provided. A typical unit detail has been provided on sheet C-1. The units are similar to single family units.

B. The grading plan remains unchanged from the previous approval. The recommended land disturbance budget is 37 percent (21.37 acres) of the HP area (see attached slope analysis). The proposed land disturbance in the HP area exceeds that recommendation by 65 percent (37.4 acres), which is 76 percent (16 acres) over the recommended disturbance area. There is a condition to reforest slopes or reduce the grading to comply with the slope analysis.

C. The SP area follows the FEMA Floodway along Knob Creek on the east side of the property. The no-fill line is halfway between the 100- and 500-year Floodplains. It is shown on the plan, and no structures are past the no-fill line.

3) KNOX COMPREHENSIVE PLAN - IMPLEMENTATION POLICIES

A. The reforestation and/or grading reduction conditions are consistent with Policy 2.3 to provide protection for ridges views, and open spaces.

B. The development has a mix of single family, duplexes, and townhomes with a pool and clubhouse amenity. This is consistent with Implementation Policies 5, creating neighborhoods with a variety of housing types and amenities in close proximity.

4) KNOXVILLE - FARRAGUT - KNOX COUNTY GROWTH POLICY PLAN

A. The property is within the Planned Growth Area. The purposes of the Planned Growth Area designation are

to encourage a reasonably compact pattern of development, promote the expansion of the Knox County economy, offer a wide range of housing choices, and coordinate the actions of the public and private sectors, particularly with regard to the provision of adequate roads, utilities, schools, drainage and other public facilities and services. This development is in alignment with these goals.

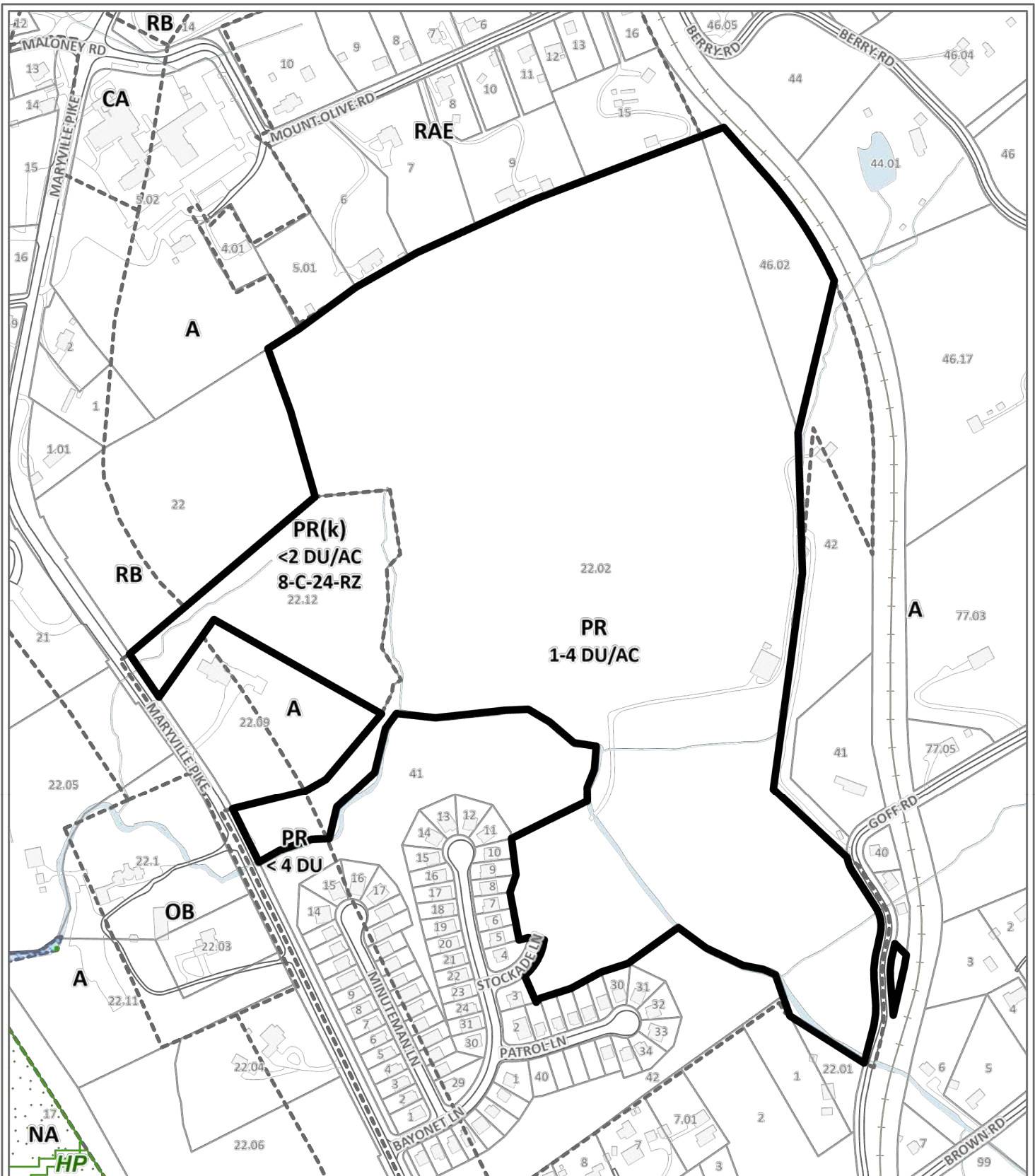
ESTIMATED TRAFFIC IMPACT: A traffic impact study was prepared by the applicant. The findings of that study were used in formulating the recommendations of this staff report.

ESTIMATED STUDENT YIELD: 23 (public school children, grades K-12)

Schools affected by this proposal: Mount Olive Elementary, South Doyle Middle, and South Doyle 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.

The Planning Commission's approval or denial of this request is final, unless the action is appealed. For more information on the appeal process, contact Knoxville-Knox County Planning.



CONCEPT PLAN / DEVELOPMENT PLAN

8-SG-26-C / 8-F-26-DP

Petitioner: Mesana Investments, LLC



Multi-dwelling development in PR(k) (Planned Residential) up to 2 du/ac with conditions and PR (Planned Residential) up to 4 du/ac

Original Print Date: 7/24/2026

Knoxville - Knox County Planning Commission * City / County Building * Knoxville, TN 37902

Map No: 135

Jurisdiction: County



Exhibit A. Contextual Images



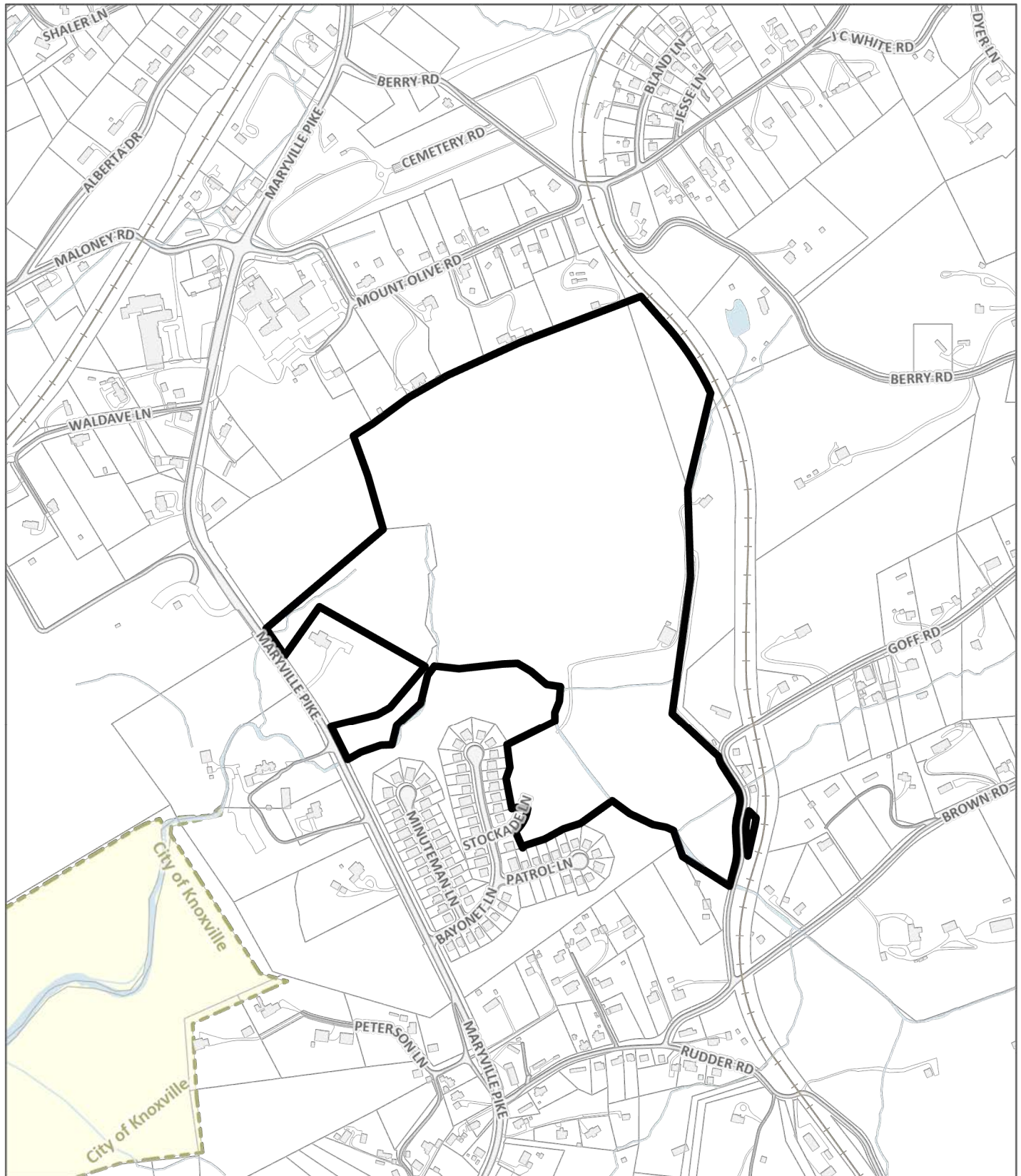
AERIAL MAP



Case boundary



Exhibit A. Contextual Images

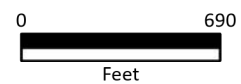


LOCATION MAP

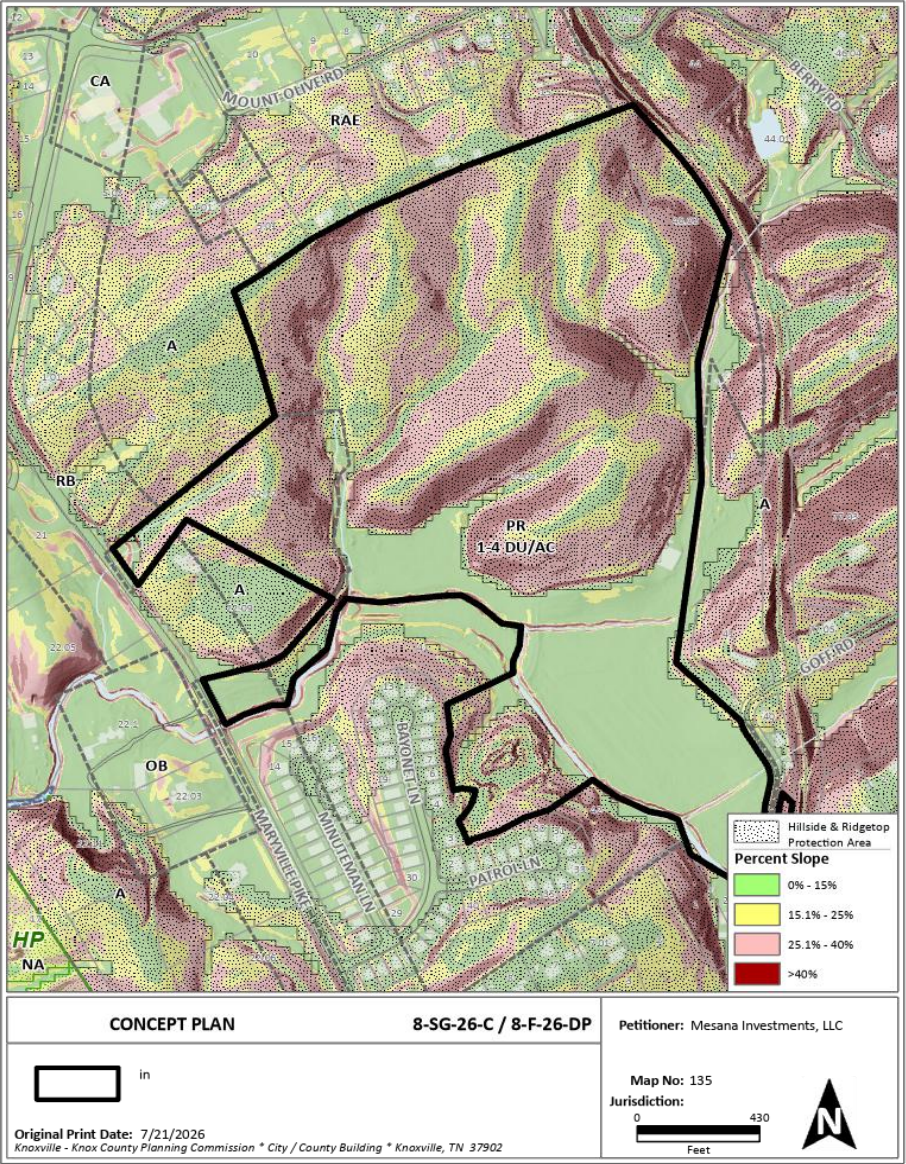
8-SG-26-C / 8-F-26-DP



Case boundary



CATEGORY	ACRES	RECOMMENDED DISTURBANCE BUDGET (Percent)	DISTURBANCE AREA (Acres)
Total Area of Site	76.1		
Non-Hillside	19.2	N/A	
0-15% Slope	7.7	100%	7.7
15-25% Slope	15.7	50%	7.9
25-40% Slope	24.8	20%	5.0
Greater than 40% Slope	8.7	10%	0.9
Ridgetops			
Hillside Protection (HP) Area	56.9	Recommended disturbance budget within HP Area (acres)	21.4
		Percent of HP Area	37.5%

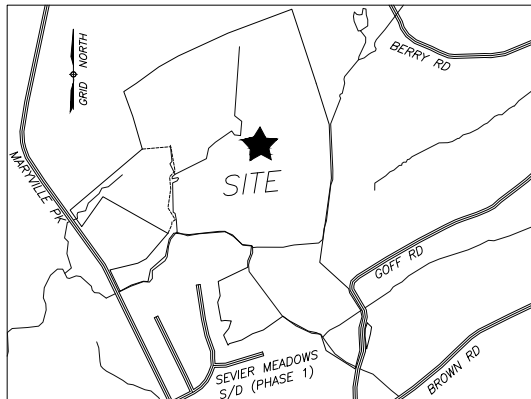


CONCEPT PLAN

U.E.I. PROJECT NO. 2408036

0 MARYVILLE PIKE

SITE ADDRESS: 0 MARYVILLE PIKE, KNOXVILLE, TENNESSEE 37920
TAX MAP: 135, PARCELS: 22.02, 22.12, 46.02



LOCATION MAP

DEVELOPER:

MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939



SITE ENGINEER:
URBAN ENGINEERING, INC.
CHRIS SHARP
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

SPECIFICATIONS

EXCEPT WHERE DIRECTED OTHERWISE BY THE PLANS, WORKMANSHIP AND MATERIAL (BUT NOT MEASUREMENT AND PAYMENT) FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS AND STANDARDS.

ELECTRICAL	- AS DIRECTED BY KNOXVILLE UTILITIES BOARD
GAS	- AS DIRECTED BY KNOXVILLE UTILITIES BOARD
WATER & SEWER	- AS DIRECTED BY KNOXVILLE UTILITIES BOARD
TELEPHONE	- AS DIRECTED BY AT&T
CABLE	- AS DIRECTED BY COMCAST
SITE DEVELOPMENT	- KNOX COUNTY STANDARDS AND SPECIFICATIONS

SHEET INDEX

TITLE

TITLE SHEET
KEY SHEET / TYPICAL SECTION
SITE PLAN
ROAD PROFILES
PRELIMINARY GRADING PLAN

SHEET

C-0
C-1
C-2 THRU C-5
C-6 THRU C-10
C-11 THRU C-14

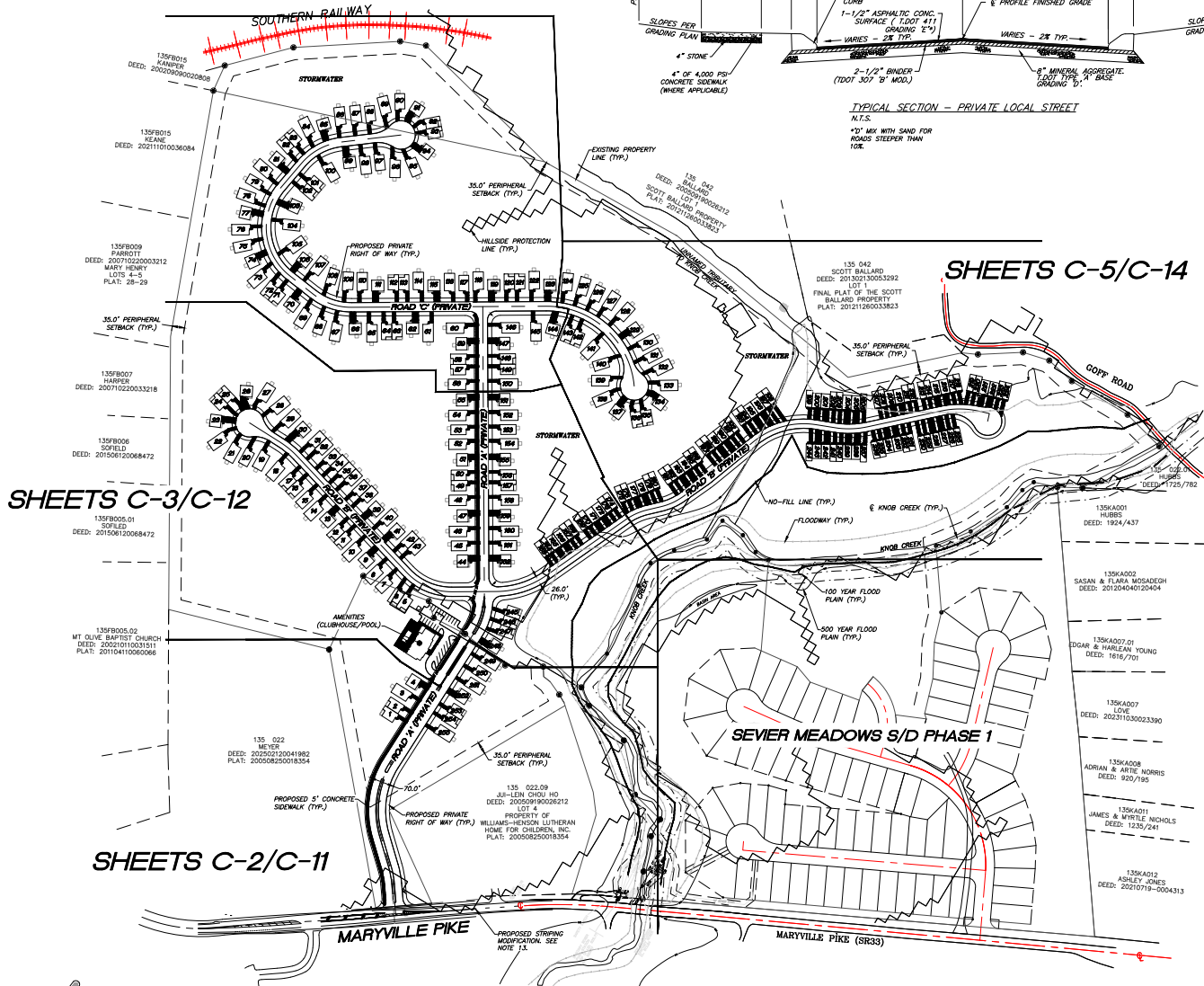
Certification of Concept Plan by Registered Engineer
I hereby certify that I am a registered engineer, licensed to practice engineering under the laws of the State of Tennessee. I further certify that the plan and accompanying drawings, documents and statements conform, to the best of my knowledge, to all applicable provisions of the Knoxville-Morgan County Subdivision Regulations except as has been Remixed and described in a separate and separate Commission.
Registered Engineer, *Christopher A. Sharp*
Christopher A. Sharp, P.E.
Tennessee License No. 108984
Date: 6/26/26



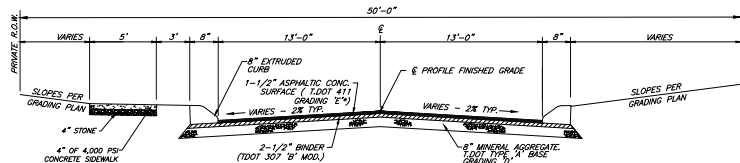
PLANNING FILE# 8-SG-26-C/8-F-26-DP

2	07/20/26	SUBMITTAL 2
ISSUE NO.	DATE	DESCRIPTION

SHEETS C-4/C-13

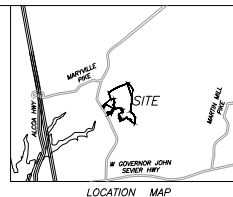
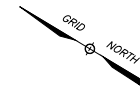


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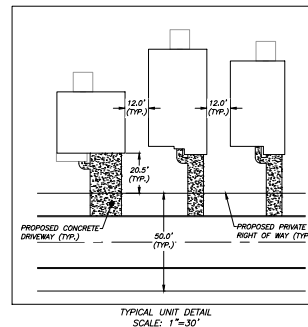


TYPICAL SECTION - PRIVATE LOCAL STREET

*D' MIX WITH SAND FOR
ROADS STEEPER THAN
10%.



SHEETS C-5/C-14



TYPICAL UNIT DETAIL
SCALE: 1"=30'

SITE PLAN NOTES:

1. THIS PROPERTY IS ZONED "P", REQUIRED BUILDING SETBACKS ARE AS FOLLOWS:
FRONT: THIRTY (30) FEET
PERIMETER: THIRTY FIVE (35) FEET (MINIMUM)
SIDE: FIVE (5) FEET
REAR: FIFTEEN (15) FEET
2. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS GATCH BASINS, MANHOLES, WATER MAINS, ETC. AND COMPILED INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL FOR RECORDS PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING INFORMATION SHOWN AND DETERMINING THE LAYOUT OF THE UTILITY SYSTEM AND IF ADDITIONAL APPROVEMENTS MAY EXIST.
3. HORIZONTAL COORDINATES ARE TENNESSEE STATE PLANE. VERTICAL DATUM IS NAVD83.
4. ALL WORK SHALL BE IN ACCORDANCE WITH KNOX COUNTY'S SPECIFICATIONS FOR CONSTRUCTION DEVELOPMENT.
5. THE CURRENT TOTAL AREA OF THE DEVELOPMENT IS 76.6 ACRES.
6. THE DEVELOPMENT PROPOSES 255-1/2 ACRE (3.1 UNITS PER ACRE), OF WHICH:
7. THE PROPOSED UNITS SHALL HAVE VEHICULAR ACCESS TO INTERNAL ROADS ONLY.
8. A GOVERNMENT SHALL BE ESTABLISHED TO ADDRESS PROPERTY MAINTENANCE.
9. 10' UTILITY AND DRAINAGE EASEMENTS SHALL BE RESERVED ALONG ALL EXTERIOR BOUNDARY LINES AND PRIVATE RIGHT OF WAY.
10. THE TOTAL AREA OF THE PROPERTY COVERED BY HILLSIDE PROTECTION IS 32.11 ACRES. THE APPROXIMATE DISTURBANCE WITHIN HILLSIDE PROTECTION IS 37.42 ACRES.
11. SEE THE SHEET FOR INTERNAL STREETS TRACING SECTION.
12. THE EXACT CONFIGURATION OF THE EXISTING STRIPING NEEDS TO BE FIELD VERIFIED.

Certification of Concept Plan by Registered Engineer

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 the best of my knowledge, to all applicable provisions of the Knoxville-Knox County Subdivision Regulations except as has been itemized and described in a resolution with the Planning Commission.

Registered Engineer: Christopher A. Sharp, P.E.

Christopher A. Sharp, P.E.

Tennessee License No. 106984

Date: 6/26/26

CHRISTOPHER A. SHARP, P.E.
REGISTERED PROFESSIONAL ENGINEER
STATE OF TENNESSEE
EXPIRATION DATE 06/26/2026



SHEET C-1

KEY SHEET / TYPICAL SECTION
0 MARYVILLE PIKE
 SITE ADDRESS: 0 MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

DIST. NO. D9 KNOX CO., TN
SCALE: 1"=150' JULY 25, 2021
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.0



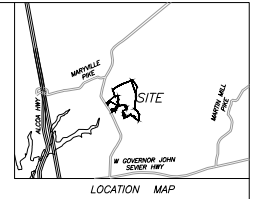
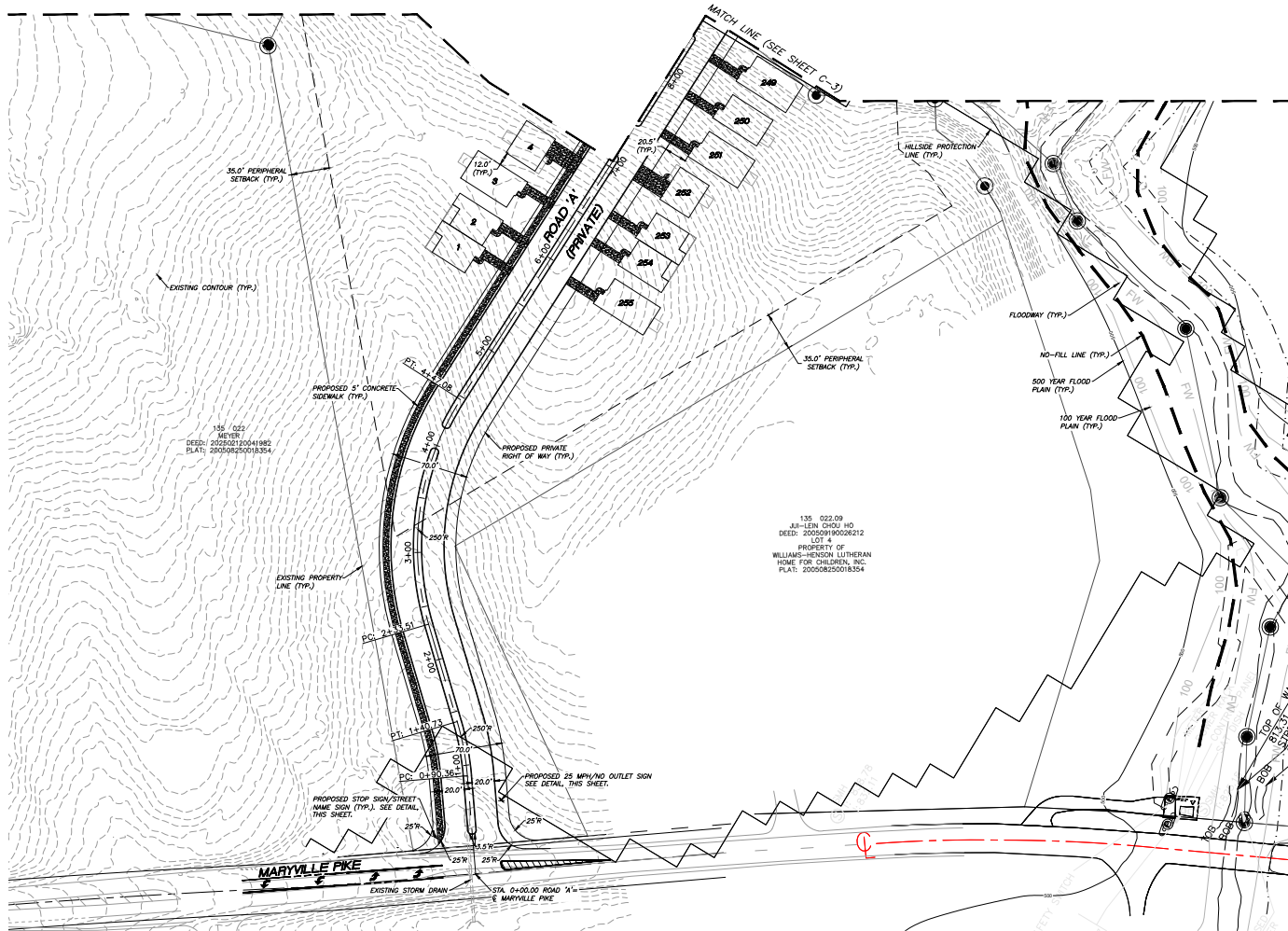
URBAN ENGINEERING, INC
10330 HARDIN VALLEY RD, #20
KNOXVILLE, TENNESSEE 37932

DWN: CLM	CHK: CAS	DWG. NO. 2408036
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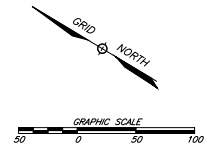
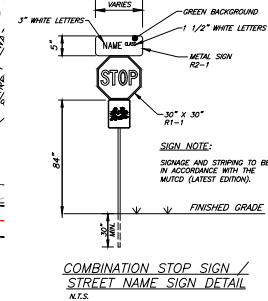
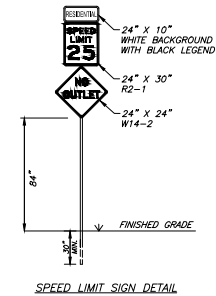
REFERENCE:
DEED BOOK: 1449, PAGE: 708

[illegible]



SITE PLAN NOTES:

- THIS PROPERTY IS ZONED 'R'. REQUIRED BUILDING SETBACKS ARE AS FOLLOWS:
FRONT: HOUSES, TWENTY (20) FEET
PERIPHERY: THIRTY FIVE (35) FEET (MINIMUM)
SIDE: FIVE (5) FEET
REAR: FIFTEEN (15) FEET
- THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER VALVES, ETC., AND COMPLETING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL TOWN ONE-CALL PRIOR TO ANY EXCAVATION WORK TO VERIFY INFORMATION SHOWN AND DETERMINE THE LAYOUT OF THE IRRIGATION SYSTEM AND IF ADDITIONAL IMPROVEMENTS MAY EXIST.
- HORIZONTAL COORDINATES ARE TENNESSEE STATE PLANE. VERTICAL DATUM IS NAVD83.
- ALL WORK SHALL BE IN ACCORDANCE WITH KNOX COUNTY'S SPECIFICATIONS FOR SITE DEVELOPMENT.
- THE CURRENT TOTAL AREA OF THE DEVELOPMENT IS 76.5 ACRES.
- THE DEVELOPMENT PROPOSES 255-UNITS (5.3 UNITS PER ACRE).
- THE PROPOSED UNITS SHALL HAVE VEHICULAR ACCESS TO INTERNAL ROADS ONLY.
- A COVENANTS SHALL BE ESTABLISHED TO ADDRESS PROPERTY MAINTENANCE.
- 10' UTILITY AND DRAINAGE EASEMENTS SHALL BE RESERVED ALONG ALL EXTERIOR BOUNDARY LINES AND PRIVATE RIGHT OF WAY.
- THE TOTAL AREA OF THE PROPERTY COVERED BY HILLSIDE PROTECTION IS 57.11 ACRES. THE APPROXIMATE DISTURBANCE AREA WITHIN HILLSIDE PROTECTION IS 37.44 ACRES.
- SEE SHEET C-1 FOR INTERNAL STREETS TYPICAL SECTION.
- THE EXACT CONFIGURATION OF THE EXISTING STRIPING NEEDS TO BE FIELD VERIFIED.



VARIANCE / ALTERNATIVE DESIGN STANDARD REQUESTS:

- Road A (PRIVATE):**
- Reduce the centerline radius from 250' to 175' between stations 8+90.21 & 9+90.64.
 - Increase the intersection grade from 1% to 1.5% at the intersection of Maryville Pike and Road A.
 - Increase the intersection grade from 1% to 2% at the intersection of Roads A & C.
 - Reduce the k value from 25 to 20 between stations 3+66.12 & 7+12.05.

VARIANCE / ALTERNATIVE DESIGN STANDARD REQUESTS:

- Road B (PRIVATE):**
- Reduce the centerline radius from 250' to 175' between stations 6+20.18 & 7+63.74.
 - Reduce the centerline radius from 250' to 175' between stations 13+19.32 & 13+85.84.
 - Reduce the centerline radius from 250' to 175' between stations 14+26.30 & 14+92.83.
 - Reduce the centerline radius from 250' to 225' between stations 17+50.36 & 19+40.36.
 - Increase the maximum road grade from 12% to 12.92%.
 - Increase the intersection grade from 1% to 2% at the intersection of Roads A & B.
 - Reduce the centerline radius from 250' to 175' between stations 15+73.38 & 15+86.21.
 - Reduce the k value from 25 to 15 at the intersection of Roads A & B.
 - Reduce the distance between reverse curves from 50 to 40.46 between stations 15+85.84 & 14+26.30.

VARIANCE / ALTERNATIVE DESIGN STANDARD REQUESTS:

- Reduce the tangent between broken back curves from 150' to 126.22' at station 7+63.74.
- Reduce the K value from 25 to 24.61 at 0+55.81.
- Reduce the tangent between broken back curves from 150' to 81' at station 14+92.83.
- Reduce the tangent between reverse curves from 50' to 40.46' between stations 13+85.84 & 14+26.30
- Reduce the distance between broken back curves from 150' to 126.22' at station 7+63.74

VARIANCE / ALTERNATIVE DESIGN STANDARD REQUESTS:

- Road C (PRIVATE):**
- Reduce the centerline radius from 250' to 175' between stations 1+71.36 & 3+02.10.
 - Reduce the centerline radius from 250' to 175' between stations 3+92.71 & 6+74.77.
 - Reduce the centerline radius from 250' to 175' between stations 7+58.61 & 8+76.92.
 - Reduce the K value from 25 to 20 between stations 11+78.36 & 12+91.01.
 - Reduce the distance between broken back curves from 150' to 90.61' between stations 3+02.10 & 3+92.71.
 - Reduce the distance between broken back curves from 150' to 84.84' between stations 6+74.77 & 7+58.61.

Certification of Concept Plan by Registered Engineer

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 the best of my knowledge, to all applicable provisions of the Knoxville-Knox County Subdivision Regulations except as has been itemized and described in a report filed with the Planning Commission.

Registered Engineer: *Christopher A. Sharp, P.E.*
Tennessee License No. 108994
Date: 6/26/26



SHEET C-2

SITE PLAN

O MARYVILLE PIKE

SITE ADDRESS: O MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

DIST. NO. D9 KNOX CO., TN.
SCALE: 1"=50' JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1824

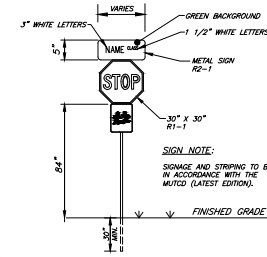
DWN: CLM CHK: CAS DWG. NO. 2408036

PLANNING FILE# 8-SG-26-C/8-F-26-DP

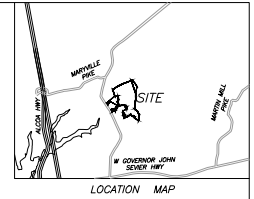
REVISION	DATE	DESCRIPTION	CLM	BY
1	07/26/26	GENERAL REVISIONS		

REFERENCE:
PARCEL 22.02
DEED INST. #20180712002507
PARCEL 22.12
DEED INST. #20240716003011
PARCEL 46.02
DEED INST. #20180712002507

Certification of Concept Plan by Registered Engineer
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 the best of my knowledge, to all applicable provisions of the Knoxville/Sevier County Subdivision Regulations except as has been itemized and described in a report filed with the Planning Commission.
Registered Engineer: Christopher A. Sharp, P.E.
Tennessee License No. 108884
Date: 6/26/2025

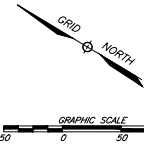


COMBINATION STOP SIGN /
STREET NAME SIGN DETAIL
N.T.S.



SITE PLAN NOTES:

1. THIS PROPERTY IS ZONED 'PR'. REQUIRED BUILDING SETBACKS ARE AS FOLLOWS:
FRONT: HOUSES, TWENTY (20) FEET
PERIPHERY: THIRTY FIVE (35) FEET (MINIMUM)
SIDE: FIVE (5) FEET
REAR: FIFTEEN (15) FEET
2. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER VALVES, ETC., AND COMPLYING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL TENN ONE-CALL PRIOR TO ANY EXCAVATION WORK TO VERIFY INFORMATION SHOWN AND DETERMINE THE LAYOUT OF THE IRRIGATION SYSTEM AND IF ADDITIONAL IMPROVEMENTS MAY EXIST.
3. HORIZONTAL COORDINATES ARE TENNESSEE STATE PLANE. VERTICAL DATUM IS NAVD83.
4. ALL WORK SHALL BE IN ACCORDANCE WITH KNOX COUNTY'S SPECIFICATIONS FOR SITE DEVELOPMENT.
5. THE CURRENT TOTAL AREA OF THE DEVELOPMENT IS 76.5 ACRES.
6. THE DEVELOPMENT PROPOSES 255-UNITS (5.3 UNITS PER ACRE).
7. THE PROPOSED UNITS SHALL HAVE VEHICULAR ACCESS TO INTERNAL ROADS ONLY.
8. A COVENANTS SHALL BE ESTABLISHED TO ADDRESS PROPERTY MAINTENANCE.
9. 10' UTILITY AND DRAINAGE EASEMENTS SHALL BE RESERVED ALONG ALL EXTERIOR BOUNDARY LINES AND PRIVATE RIGHT OF WAY.
10. THE TOTAL AREA OF THE PROPERTY COVERED BY HILLSIDE PROTECTION IS 57.11 ACRES. THE APPROXIMATE DISTURBANCE AREA WITHIN HILLSIDE PROTECTION IS 37.42 ACRES.
11. SEE SHEET C-1 FOR INTERNAL STREETS TYPICAL SECTION.
12. THE EXACT CONFIGURATION OF THE EXISTING STRIPING NEEDS TO BE FIELD VERIFIED.



SHEET C-3

SITE PLAN

0 MARYVILLE PIKE
SITE ADDRESS: 0 MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

DIST. NO. D9 KNOX CO., TN.
SCALE: 1"=50' JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02



URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD., #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1824

DWN: CLM CHK: CAS DWG. NO. 2408036

REVISION	DATE	DESCRIPTION	CLM	BY
1	07/26/2025	GENERAL REVISIONS		



PLANNING FILE# 8-SG-26-C/8-F-26-DP

REFERENCE:
PARCEL 22.02
DEED INSTR. #201807120002507
PARCEL 22.12
DEED INSTR. #202407160003011
PARCEL 46.02
DEED INSTR. #201807120002507

SOUTHERN RAILWAY

SOUTHERN RAILWAY

EXISTING PROPERTY
STORMWATER LINE (TYP.)

1328 BILLS
KNOXVILLE
DEED: 20020800020508

35' PERIPHERAL
SETBACK (TYP.)

PROPOSED PRIVATE
RIGHT OF WAY (TYP.)

PROPOSED RIGHT
DISTANCE EASEMENT

EXISTING CONTOUR (TYP.)

HILLSIDE PROTECTION
LINE (TYP.)

ROAD C' (PRIVATE)

PROPOSED 5" CONCRETE
SIDEWALK (TYP.)

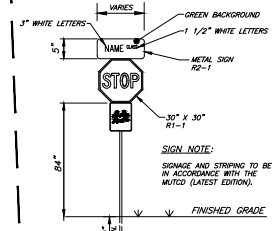
PROPOSED STOP SIGN/STREET
NAME SIGN (TYP.), SEE DETAIL
THIS SHEET.

Certification of Concept Plan by Registered Engineer
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 the best of my knowledge, to all applicable
provisions of the Knoxville-Metropolitan Government Subdivision Regulations except as has been itemized
and described in a report filed with the Planning Commission.
Registered Engineer Christopher A. Sharp, P.E.
Tennessee License No. 108894
Date: 6/26/26

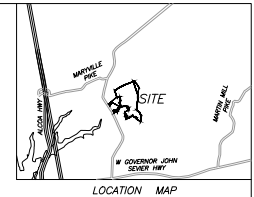


REFERENCE:
PARCEL 22.02
DEED INST. #20180712002507
PARCEL 22.12
DEED INST. #202407160003011
PARCEL 46.02
DEED INST. #20180712002507

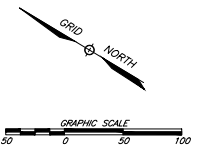
PLANNING FILE# 8-SG-26-C/8-F-26-DP



COMBINATION STOP SIGN /
STREET NAME SIGN DETAIL
N.E.S.



- SITE PLAN NOTES:**
1. THIS PROPERTY IS ZONED "P", REQUIRED BUILDING SETBACKS ARE AS FOLLOWS:
FRONT: THIRTY TWO (32) FEET
PERIPHERY: THIRTY FIVE (35) FEET (MINIMUM)
SIDE: FIVE (5) FEET
REAR: FIFTEEN (15) FEET
 2. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER VALVES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL TERN ONE-CALL PRIOR TO ANY EXCAVATION WORK. TO VERIFY INFORMATION SHOWN AND DETERMINE THE LAYOUT OF THE IRRIGATION SYSTEM AND IF ADDITIONAL IMPROVEMENTS MAY EXIST.
 3. HORIZONTAL COORDINATES ARE TENNESSEE STATE PLANE. VERTICAL DATUM IS NAVD83.
 4. ALL WORK SHALL BE IN ACCORDANCE WITH KNOX COUNTY'S SPECIFICATIONS FOR SITE DEVELOPMENT.
 5. THE CURRENT TOTAL AREA OF THE DEVELOPMENT IS 76.5 ACRES.
 6. THE DEVELOPMENT PROPOSES 255-UNITS (1.3 UNITS PER ACRE).
 7. THE PROPOSED UNITS SHALL HAVE VEHICULAR ACCESS TO INTERNAL ROADS ONLY.
 8. A COVENANTS SHALL BE ESTABLISHED TO ADDRESS PROPERTY MAINTENANCE.
 9. 10' UTILITY AND DRAINAGE EASEMENTS SHALL BE RESERVED ALONG ALL EXTERIOR BOUNDARY LINES AND PRIVATE RIGHT OF WAY.
 10. THE TOTAL AREA OF THE PROPERTY COVERED BY HILLSIDE PROTECTION IS 57.11 ACRES. THE APPROXIMATE DISTURBANCE AREA WITHIN HILLSIDE PROTECTION IS 37.48 ACRES.
 11. SEE SHEET C-1 FOR INTERNAL STREETS TYPICAL SECTION.
 12. THE EXACT CONFIGURATION OF THE EXISTING STRIPING NEEDS TO BE FIELD VERIFIED.

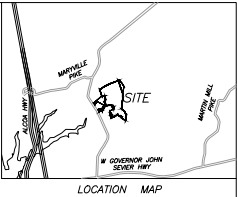


SHEET C-4

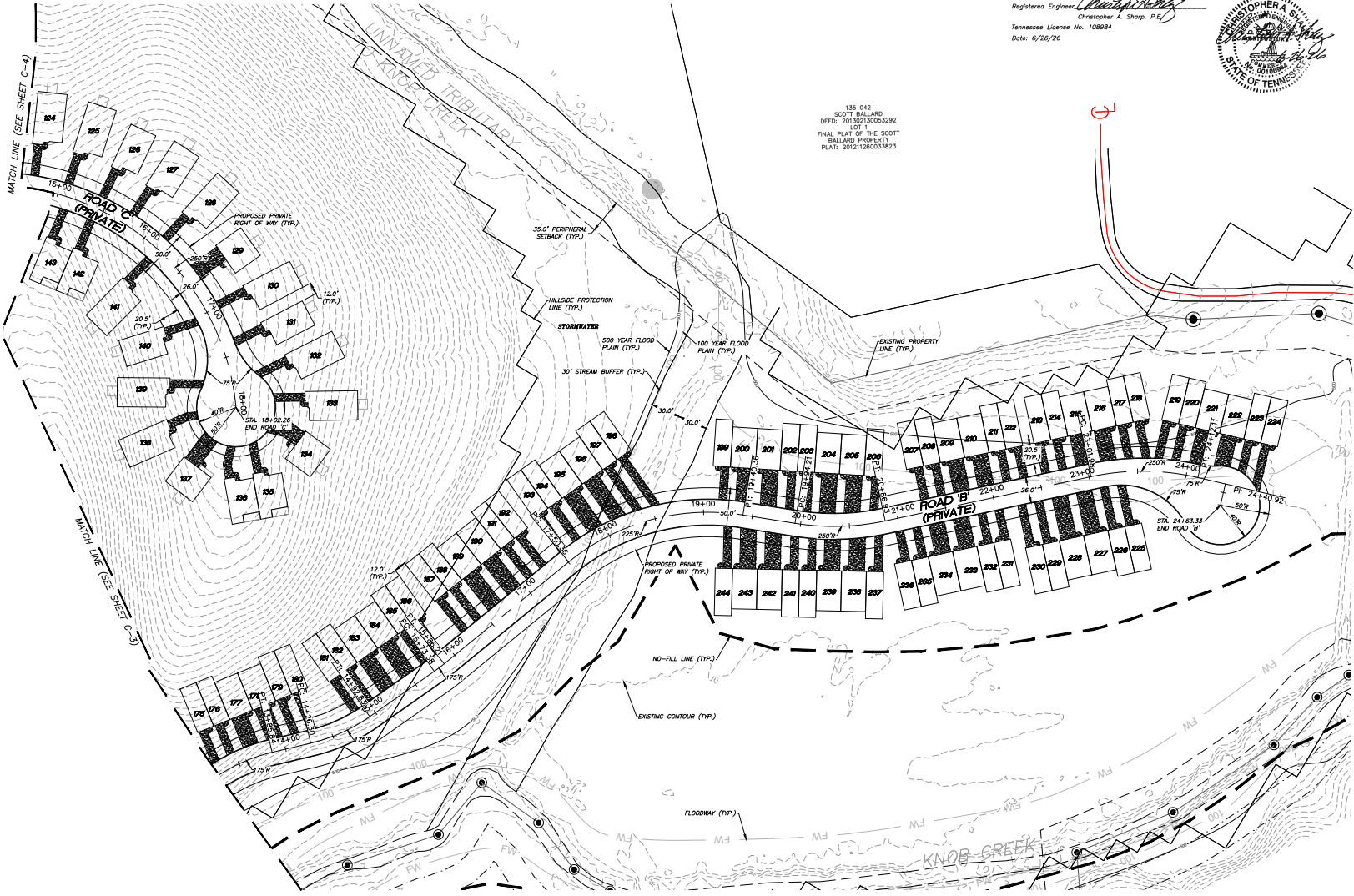
SITE PLAN 0 MARYVILLE PIKE SITE ADDRESS: 0 MARYVILLE PIKE (37920)	
DEVELOPER:	MESANA INVESTMENTS, LLC P.O. BOX 11315 KNOXVILLE, TN 37939
DIST. NO. D9	KNOX CO., TN.
SCALE: 1"=50'	JULY 25, 2025
TAX MAP: 135	PARCELS: 22.02, 22.12, 46.02
URBAN ENGINEERING, INC. 10330 HARDIN VALLEY RD, #201 KNOXVILLE, TENNESSEE 37932 (865) 966-1824	
DWN: CLM	CHK: CAS
DWG. NO. 2408036	

REVISION	DATE	DESCRIPTION	CLM	BY
1	07/26/26	GENERAL REVISIONS		

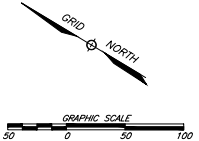
Certification of Concept Plan by Registered Engineer
I hereby certify that I am a registered engineer, licensed to practice engineering under the laws of the State of Tennessee. I further certify that the plan and accompanying drawings, documents and statements conform, to the best of my knowledge, to all applicable provisions of the Knoxville-Knox County Subdivision Regulations except as has been itemized and described in a report filed with the Planning Commission.
Registered Engineer, Christopher A. Sharp, P.E.
Tennessee License No. 108984
Date: 6/26/26



135.042
SCOTT BALLARD
DEED: 20130310003292
LOT 1
FINAL PLAT OF THE SCOTT
BALLARD PROPERTY
PLAT: 20131000033023



- SITE PLAN NOTES:**
1. THIS PROPERTY IS ZONED 'PH'. REQUIRED BUILDING SETBACKS ARE AS FOLLOWS:
FRONT: HOUSES, TWENTY (20) FEET
PERIPHERY: THIRTY FIVE (35) FEET (MINIMUM)
SIDE: FIVE (5) FEET
REAR: FIFTEEN (15) FEET
 2. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER VALVES, ETC., AND COMPILED INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL TOWN ONE-CALL PRIOR TO ANY EXCAVATION WORK. TO VERIFY INFORMATION SHOWN AND DETERMINE THE LAYOUT OF THE IRRIGATION SYSTEM AND IF ADDITIONAL IMPROVEMENTS MAY EXIST.
 3. HORIZONTAL COORDINATES ARE TENNESSEE STATE PLANE. VERTICAL DATUM IS NAVD83.
 4. ALL WORK SHALL BE IN ACCORDANCE WITH KNOX COUNTY'S SPECIFICATIONS FOR SITE DEVELOPMENT.
 5. THE CURRENT TOTAL AREA OF THE DEVELOPMENT IS 76.5 ACRES.
 6. THE DEVELOPMENT PROPOSES 255-UNITS (3.3 UNITS PER ACRE).
 7. THE PROPOSED UNITS SHALL HAVE VEHICULAR ACCESS TO INTERNAL ROADS ONLY.
 8. A COVENANTS SHALL BE ESTABLISHED TO ADDRESS PROPERTY MAINTENANCE.
 9. 10' UTILITY AND DRAINAGE EASEMENTS SHALL BE RESERVED ALONG ALL EXTERIOR BOUNDARY LINES AND PRIVATE RIGHT OF WAY.
 10. THE TOTAL AREA OF THE PROPERTY COVERED BY HILLSIDE PROTECTION IS 57.11 ACRES. THE APPROXIMATE DISTURBANCE AREA WITHIN HILLSIDE PROTECTION IS 37.48 ACRES.
 11. SEE SHEET C-1 FOR INTERNAL STREETS TYPICAL SECTION.
 12. THE EXACT CONFIGURATION OF THE EXISTING STRIPING NEEDS TO BE FIELD VERIFIED.



SHEET C-5

SITE PLAN
0 MARYVILLE PIKE
SITE ADDRESS: 0 MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

DIST. NO. D9 KNOX CO., TN.
SCALE: 1"=50' JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1824

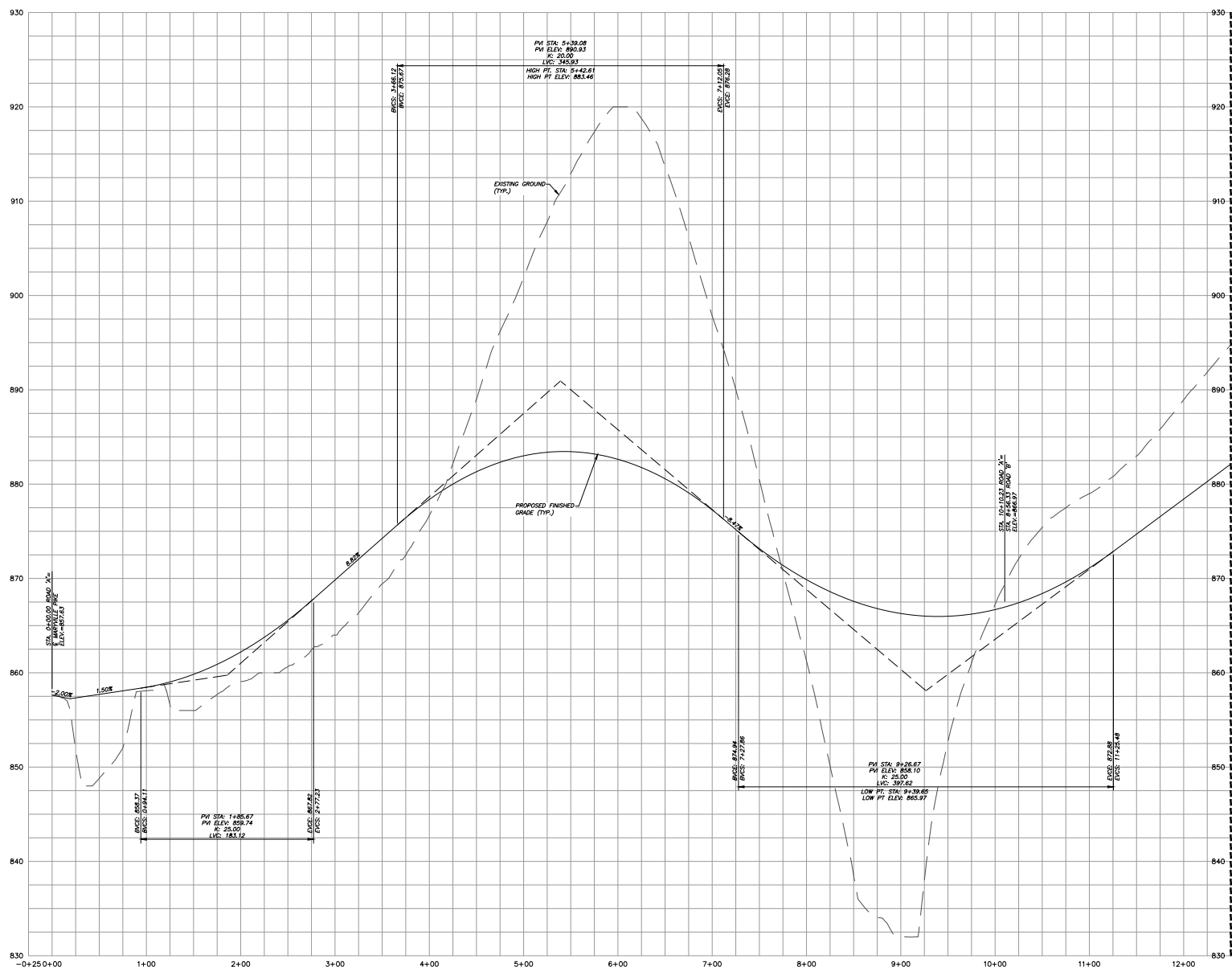
DWN: CLM CHK: CAS DWG. NO. 2408036



REFERENCE:
PARCEL: 22.02
DEED INST. #201807120002507
PARCEL: 22.12
DEED INST. #202407160003011
PARCEL: 46.02
DEED INST. #201807120002507

PLANNING FILE# 8-SG-26-C/8-F-26-DP

REVISION	DATE	DESCRIPTION	CLM	BY
1	07/26/26	GENERAL REVISIONS		



Certification of Concept Plan by Registered Engineer
 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 the best of my knowledge, to all applicable provisions of the Knoxville-Knox County Subdivision Regulations except as has been itemized and described in a report filed with the Planning Commission.
 Registered Engineer: *Christopher A. Sharp, P.E.*
 Christopher A. Sharp, P.E.
 Tennessee License No. 108984
 Date: 6/26/26



SHEET C-6

ROAD PROFILES

O MARYVILLE PIKE

SITE ADDRESS: O MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
 P.O. BOX 11315
 KNOXVILLE, TN 37939

DIST. NO. D9 KNOX CO., TN.
 SCALE: AS NOTED JULY 25, 2025
 TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02

URBAN ENGINEERING, INC.
 10330 HARDIN VALLEY RD, #201
 KNOXVILLE, TENNESSEE 37932
 (865) 966-1824

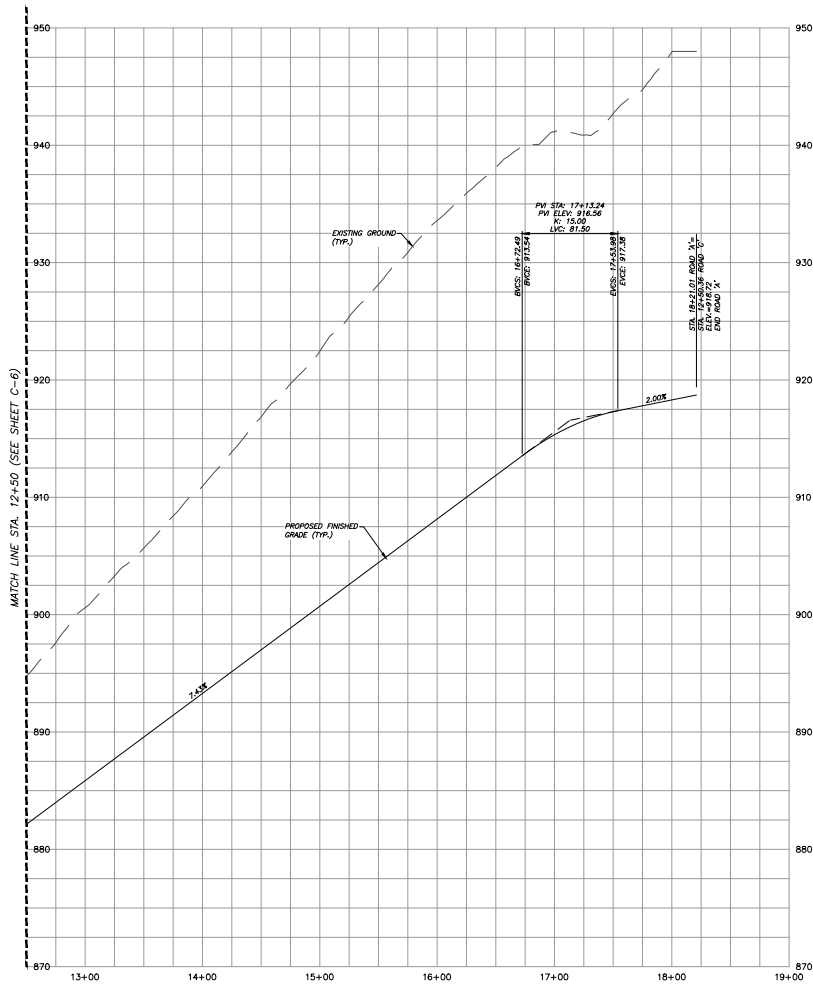


DWN: CLM CHK: GAS DWG. NO. 2408036

PROFILE-ROAD 'A'
 1"=50' (HORIZONTAL)
 1"=5' (VERTICAL)

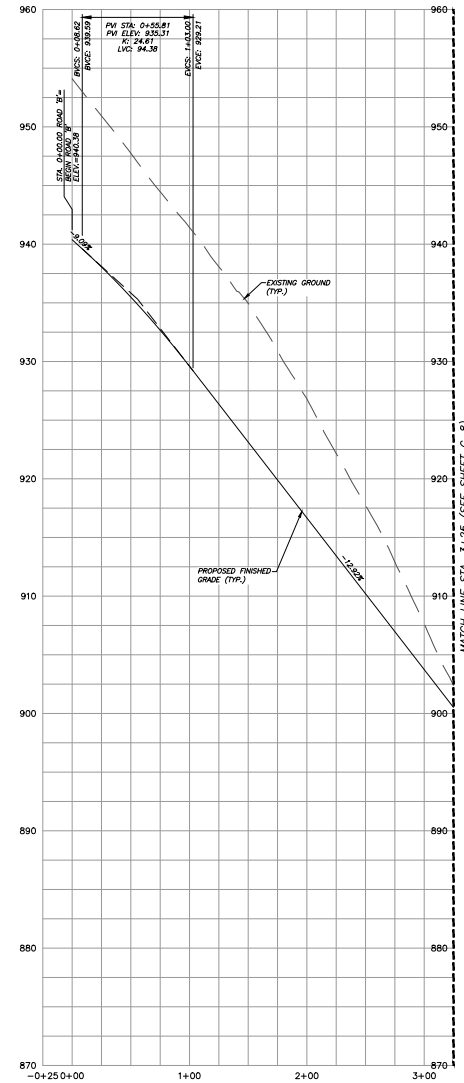
PLANNING FILE# 8-SG-26-C/8-F-26-DP

REVISION	DATE	DESCRIPTION	CLM	BY
1	07/20/26	GENERAL REVISIONS	CLM	



PROFILE-ROAD "A"
1"=50' (HORIZONTAL)
1"=5' (VERTICAL)

Certification of Concept Plan by Registered Engineer
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 the best of my knowledge, to all applicable provisions of the Knoxville-Roger County Subdivision Regulations except as has been itemized and described in a separate sheet with this Commission.
Registered Engineer: *Christopher A. Sharp*
Christopher A. Sharp, P.E.
Tennessee License No. 108984
Date: 6/26/26



PROFILE-ROAD "B"
1"=50' (HORIZONTAL)
1"=5' (VERTICAL)

REVISION	DATE	DESCRIPTION	BY
1	07/20/26	GENERAL REVISIONS	GLM

SHEET C-7

ROAD PROFILES

O MARYVILLE PIKE
SITE ADDRESS: O MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

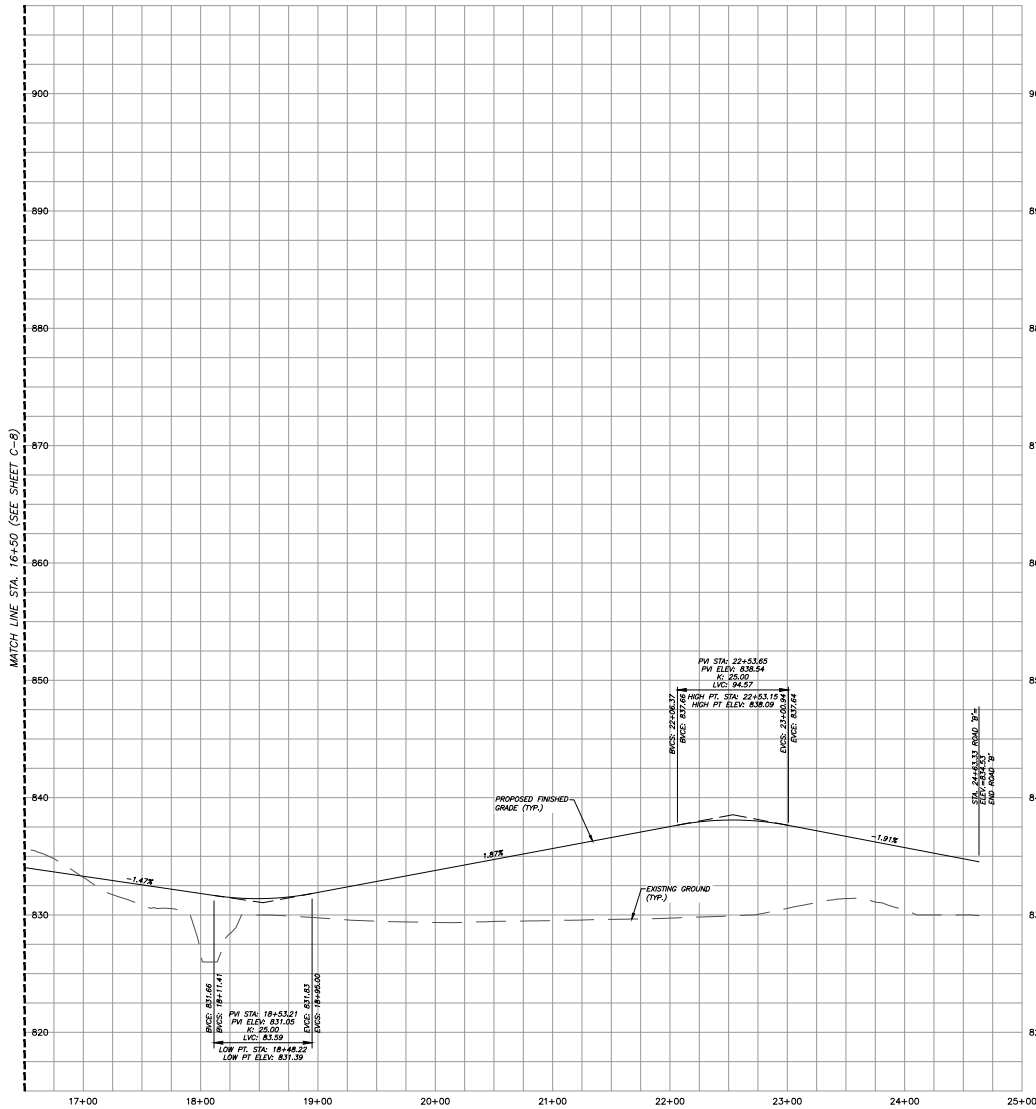
DIST. NO. D9 KNOX CO., TN.
SCALE: AS NOTED JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1824

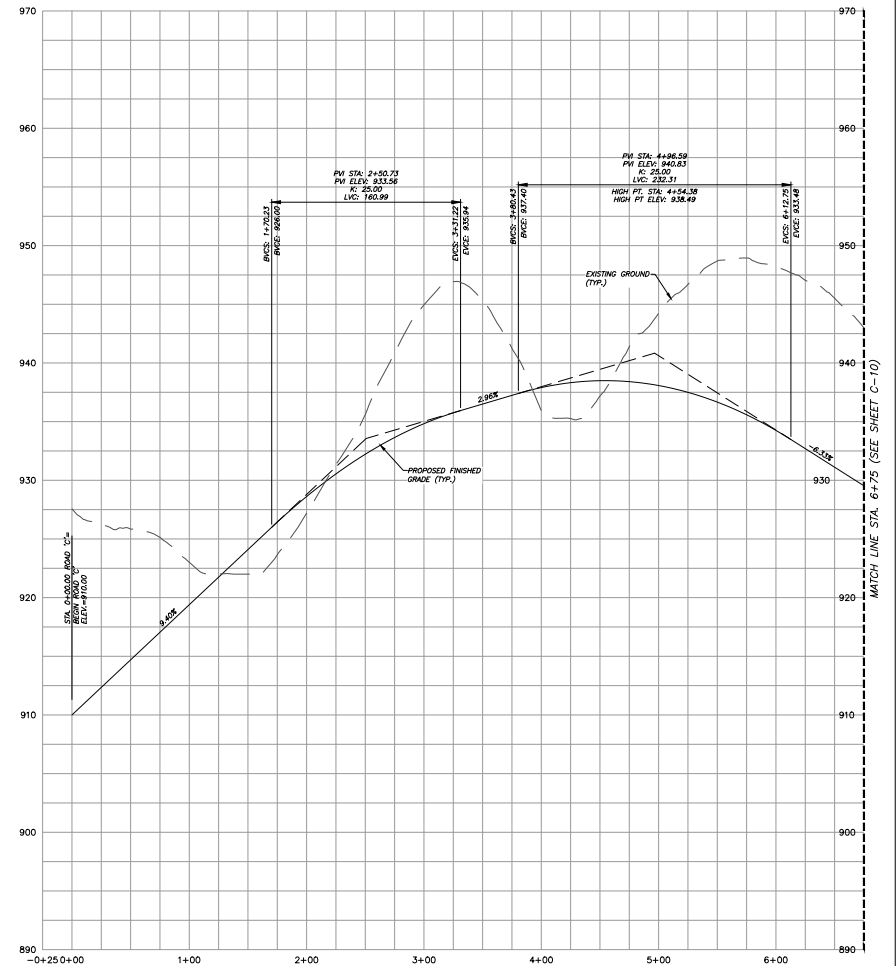
DWN: GLM CHK: GAS DWG. NO. 2408036



PLANNING FILE# 8-SG-26-C/8-F-26-DP



PROFILE-ROAD 'B'
1"=50' (HORIZONTAL)
1"=5' (VERTICAL)



PROFILE-ROAD 'C'
1"=50' (HORIZONTAL)
1"=5' (VERTICAL)

Certification of Concept Plan by Registered Engineer
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 the best of my knowledge, to all applicable provisions of the Knoxville-Hager County Subdivision Regulations except as has been itemized and described in a report filed with the Planning Commission.
Registered Engineer: *Christopher A. Sharp, P.E.*
Christopher A. Sharp, P.E.
Tennessee License No. 108984
Date: 6/26/26



SHEET C-9

ROAD PROFILES
0 MARYVILLE PIKE
SITE ADDRESS: 0 MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939
DIST. NO. D9 KNOX CO., TN.
SCALE: AS NOTED JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02

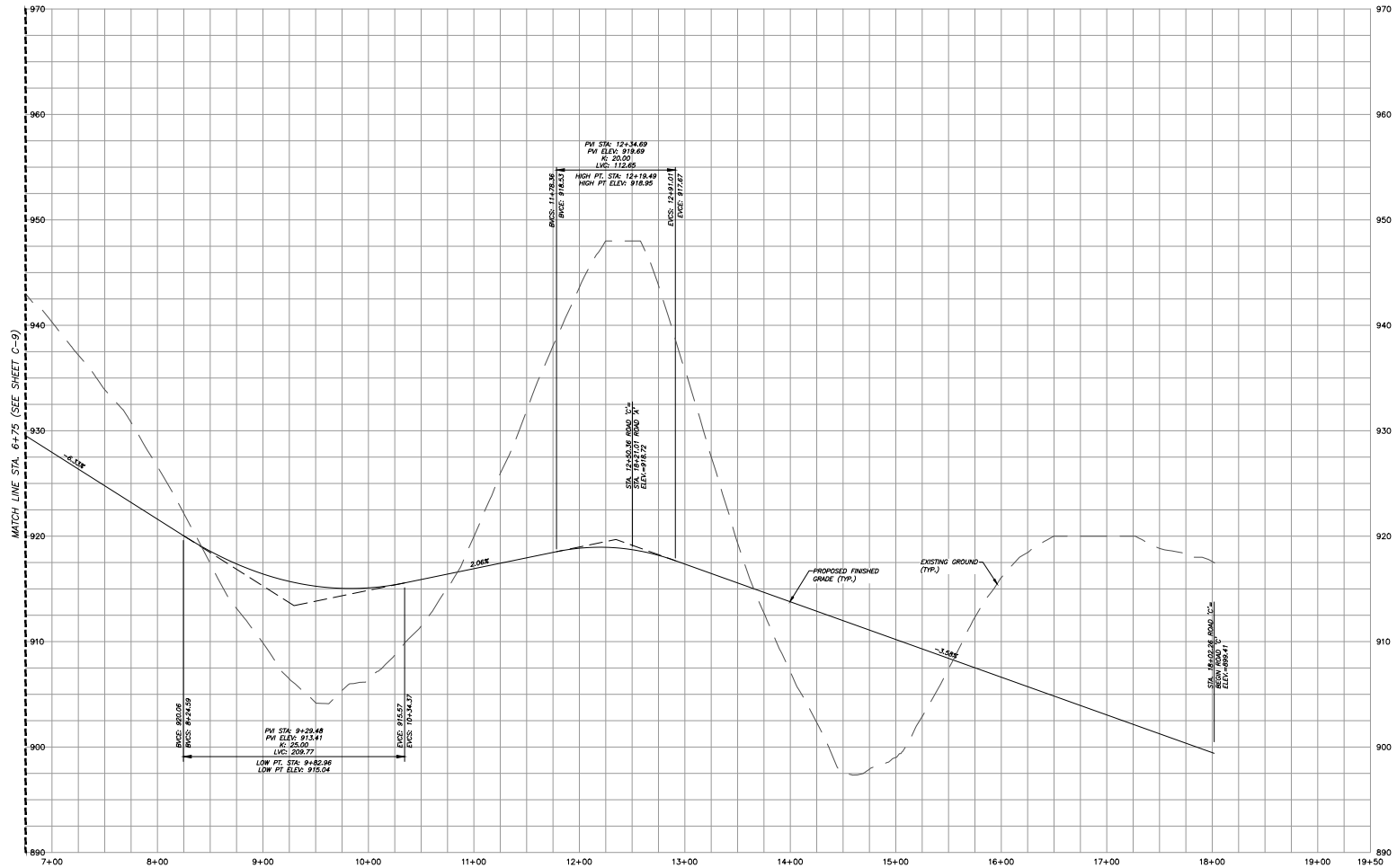
URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

DWN: CLM CHK: CAS DWG. NO. 2408036

PLANNING FILE# 8-SG-26-C/B-F-26-DP

REVISION	DATE	DESCRIPTION	CLM	BY
1	07/26/26	GENERAL REVISIONS		





PROFILE-ROAD 'C'
1"=50' (HORIZONTAL)
1"=5' (VERTICAL)

Certification of Concept Plan by Registered Engineer
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 the best of my knowledge, to all applicable provisions of the Knoxville-Knox County Subdivision Regulations except as has been itemized and described in a modification to the Planning Commission.
Registered Engineer: Christopher A. Sharp, P.E.
Tennessee License No. 108984
Date: 6/26/26



PLANNING FILE# 8-SG-26-C/8-F-26-DP

REVISION	DATE	DESCRIPTION	BY
1	07/26/26	GENERAL REVISIONS	GLM

SHEET C-10

ROAD PROFILES

O MARYVILLE PIKE
SITE ADDRESS: O MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

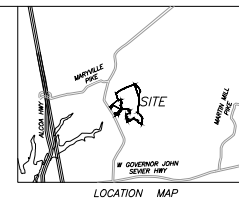
DIST. NO. D9 KNOX CO., TN.
SCALE: AS NOTED JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1824

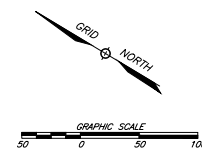


DWN: GLM CHK: GAS DWG. NO. 2408036





Certification of Concept Plan by Registered Engineer
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 the best of my knowledge, to all applicable provisions of the Knoxville-Ft. Smith County Subdivision Regulations except as has been itemized and described in a report filed with the Planning Commission.
Registered Engineer, *Christopher A. Sharp, P.E.*
Tennessee License No. 108984
Date: 6/26/26



SHEET C-11

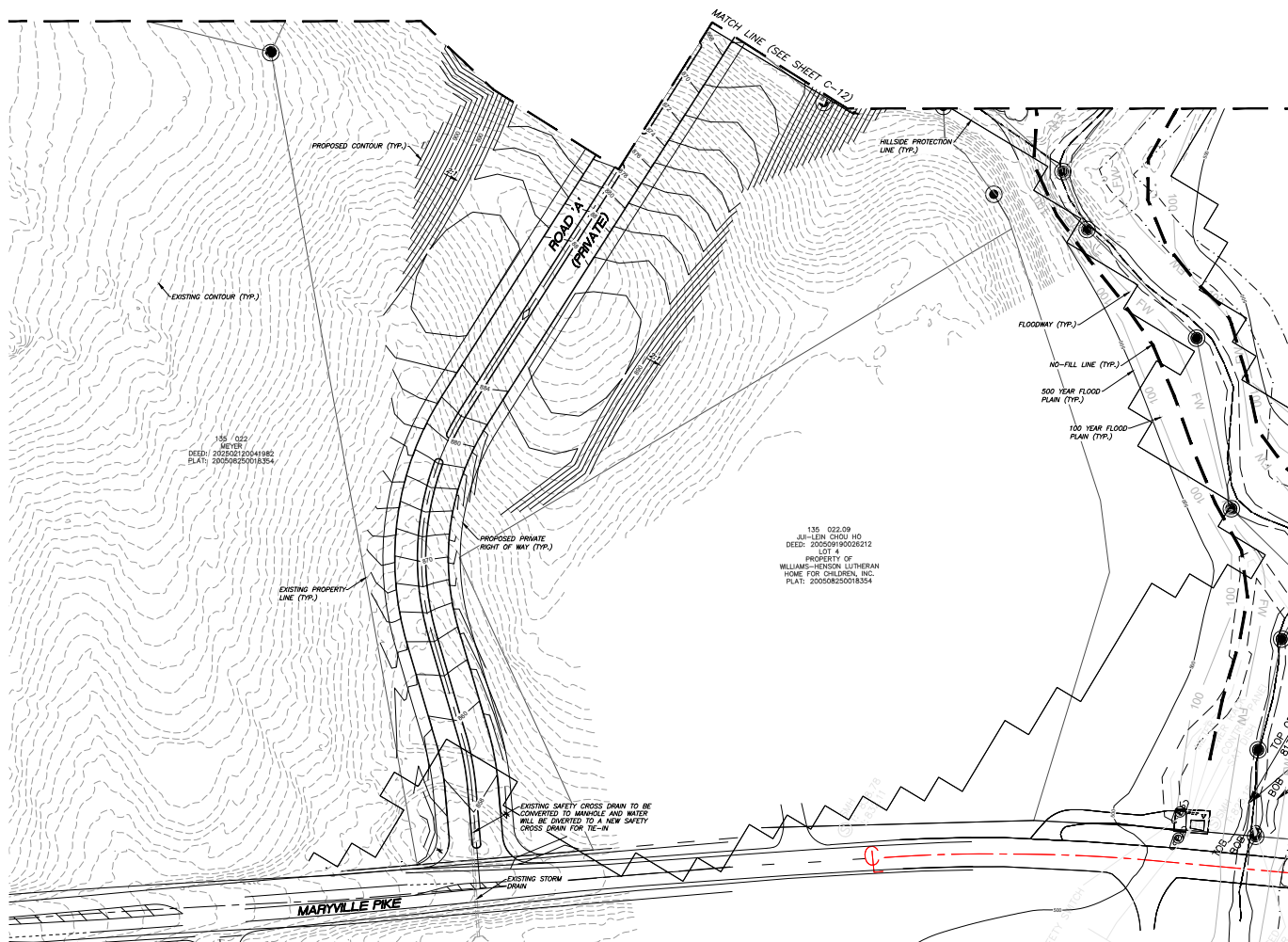
PRELIMINARY GRADING PLAN
0 MARYVILLE PIKE
SITE ADDRESS: 0 MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

DIST. NO. 09 KNOX CO., TN.
SCALE: 1"=50' JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

DWG. NO. 2408036

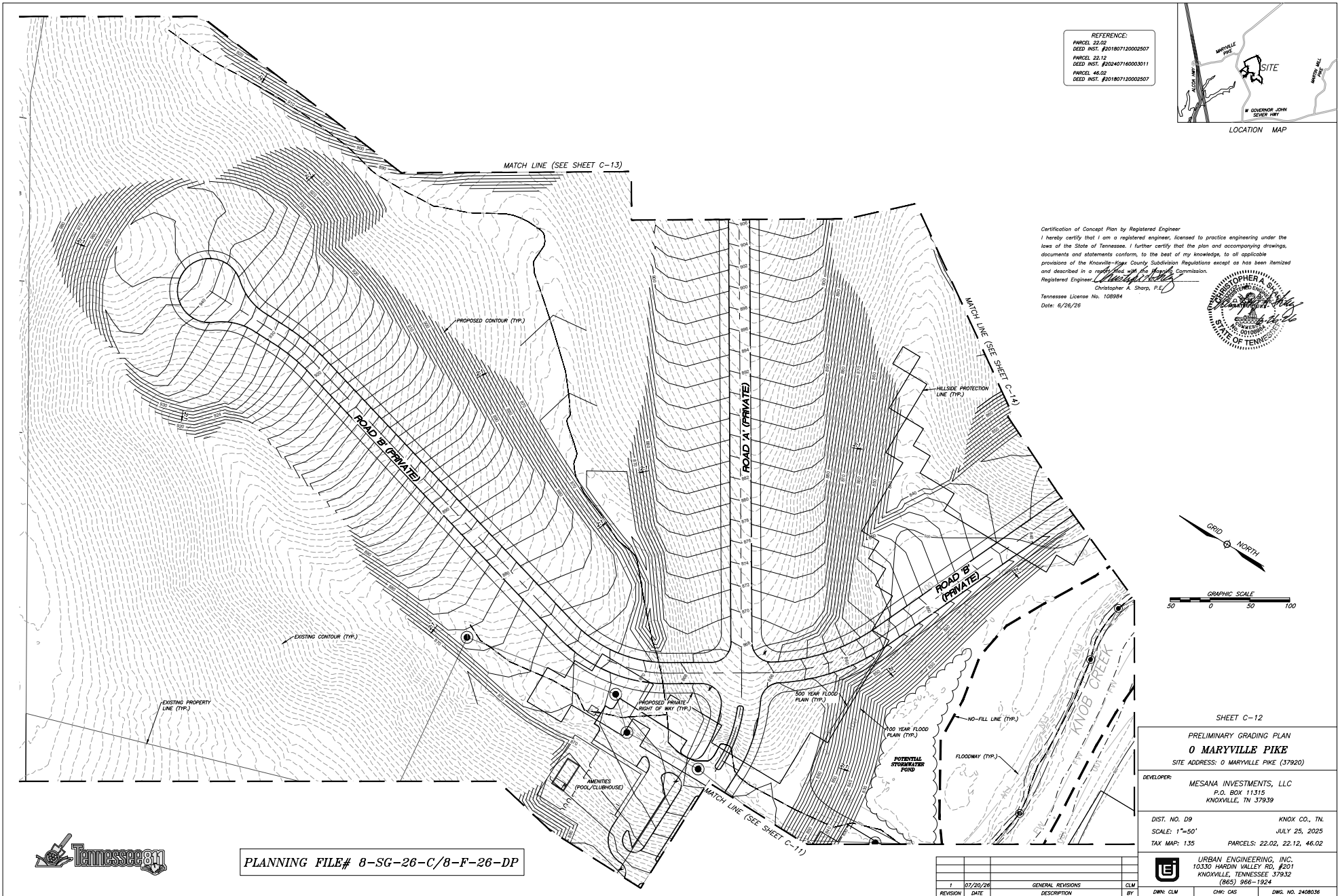


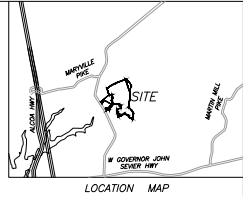
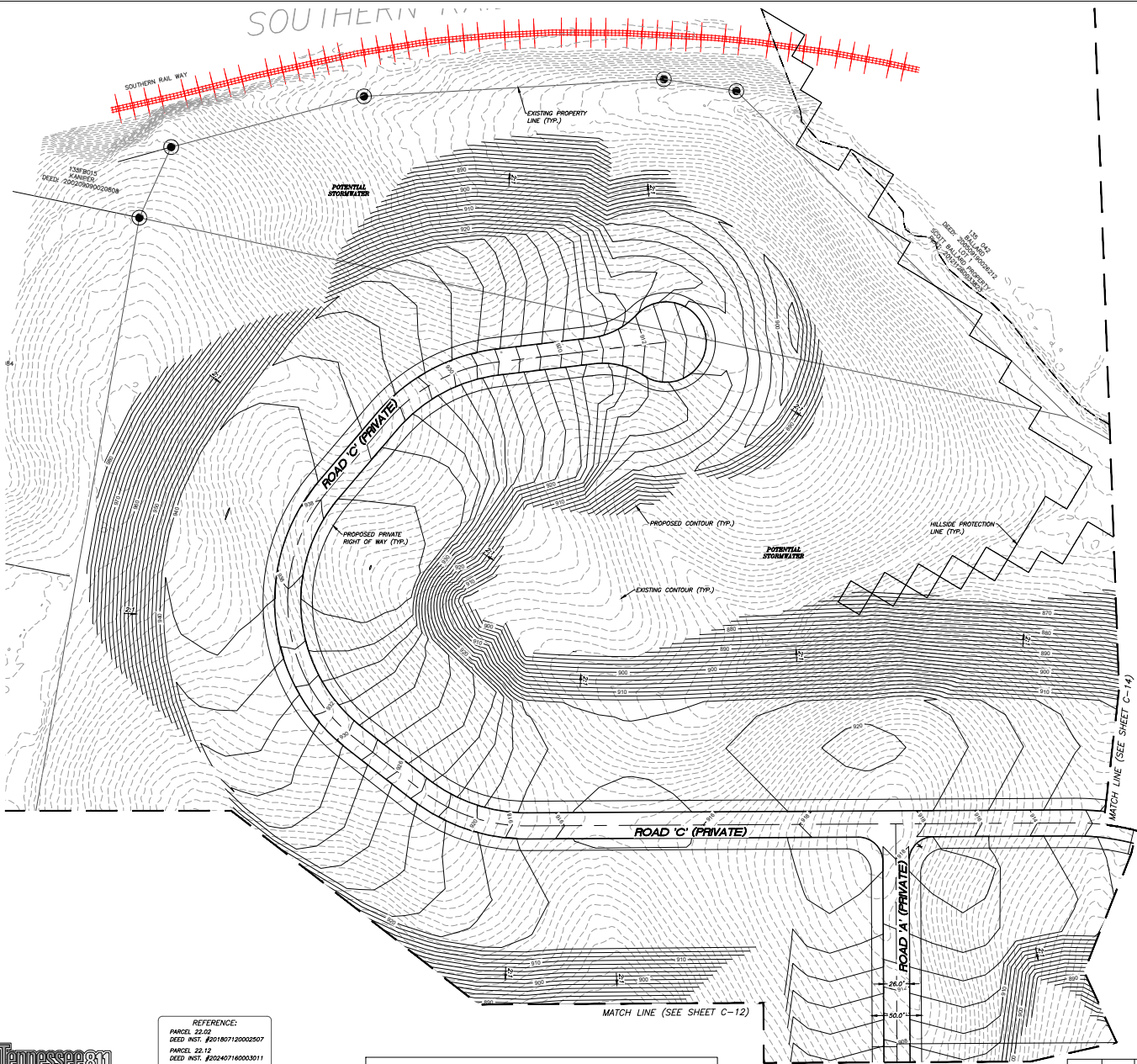
REFERENCE:
PARCEL 22.02
DEED INST. #20180712002207
PARCEL 22.12
DEED INST. #202407160003011
PARCEL 46.02
DEED INST. #20180712002207

PLANNING FILE# 8-SG-26-C/8-F-26-DP

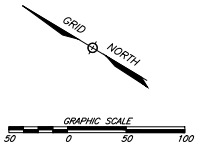


REVISION	DATE	DESCRIPTION	BY
1	07/20/26	GENERAL REVISIONS	CLM





Certification of Concept Plan by Registered Engineer
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 the best of my knowledge, to all applicable provisions of the Knoxville-Knox County Subdivision Regulations except as has been itemized and described in a report filed with the Planning Commission.
Registered Engineer, Christopher A. Sharp, P.E.
Tennessee License No. 108984
Date: 6/26/26



REFERENCE:
PARCEL 22.02
DEED INST. #201807120002507
PARCEL 22.12
DEED INST. #202407160003011
PARCEL 46.02
DEED INST. #201807120002507

PLANNING FILE# 8-SG-26-C/8-F-26-DP

SHEET C-13

PRELIMINARY GRADING PLAN
0 MARYVILLE PIKE
SITE ADDRESS: 0 MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

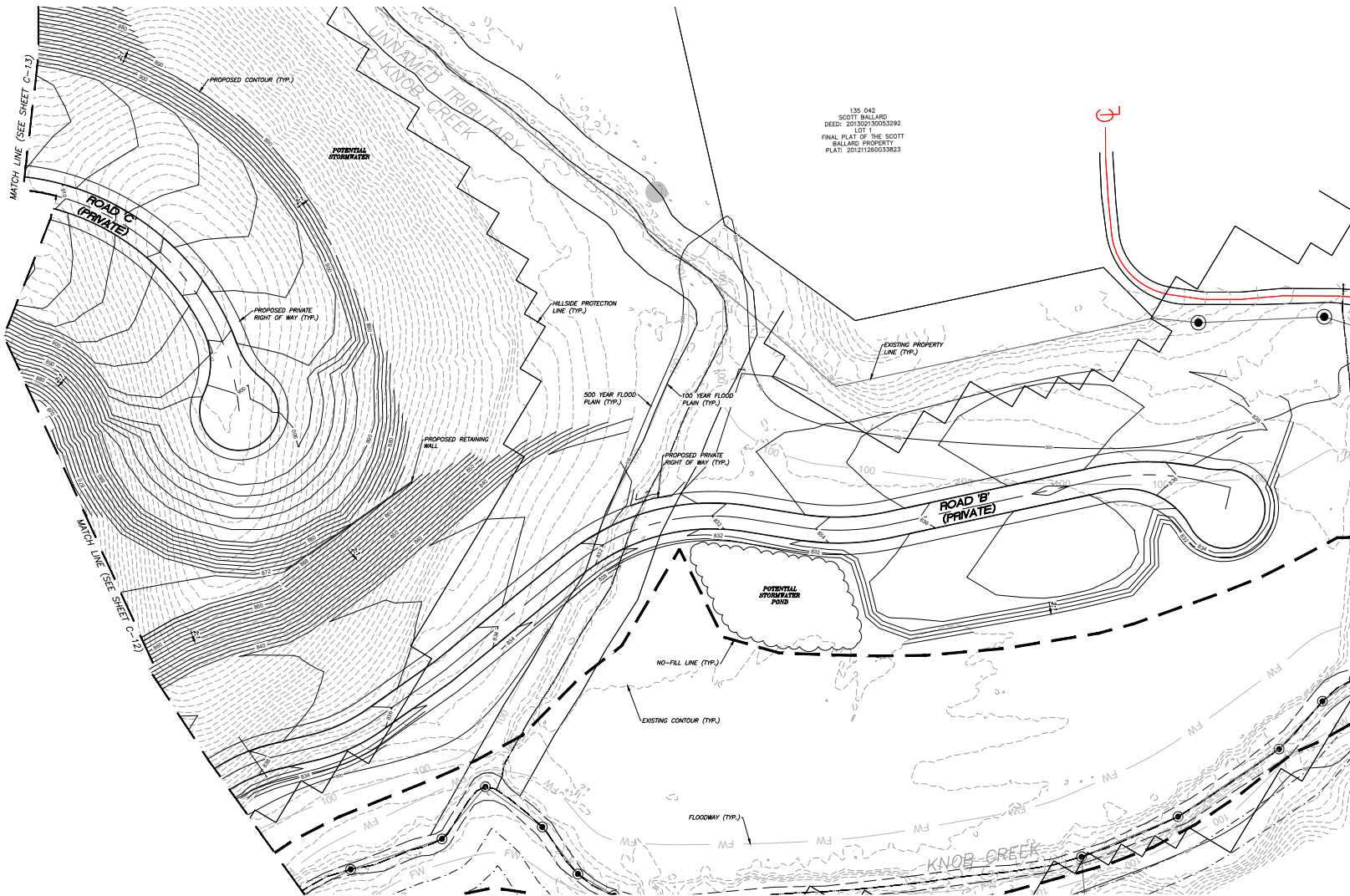
DIST. NO. D9 KNOX CO., TN
SCALE: 1"=50' JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

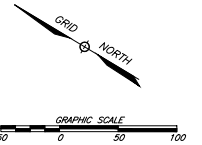
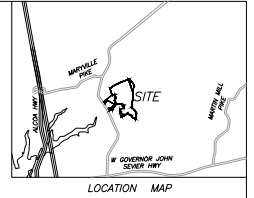
DWN: CLM CHK: GAS DWS: NO. 2408036

REVISION	DATE	DESCRIPTION	BY
1	07/20/26	GENERAL REVISIONS	CLM





135 042
SCOTT BALLARD
DEED: 20130213003292
LOT 1
FINAL PLAT OF THE SCOTT
BALLARD PROPERTY
PLAT: 201211260033823



SHEET C-14

PRELIMINARY GRADING PLAN
0 MARYVILLE PIKE
SITE ADDRESS: 0 MARYVILLE PIKE (37920)

DEVELOPER: MESANA INVESTMENTS, LLC
P.O. BOX 11315
KNOXVILLE, TN 37939

DIST. NO. D9 KNOX CO., TN.
SCALE: 1"=50' JULY 25, 2025
TAX MAP: 135 PARCELS: 22.02, 22.12, 46.02



URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

DWN: CLM CHK: CAS DWS: NO. 2408036

Certification of Concept Plan by Registered Engineer
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 the best of my knowledge, to all applicable provisions of the Knoxville-Edge County Subdivision Regulations except as has been amended and described in a report filed with the Planning Commission.
Registered Engineer: Christopher A. Sharp, P.E.
Tennessee License No. 100894
Date: 6/26/26



PLANNING FILE# 8-SG-26-C/8-F-26-DP

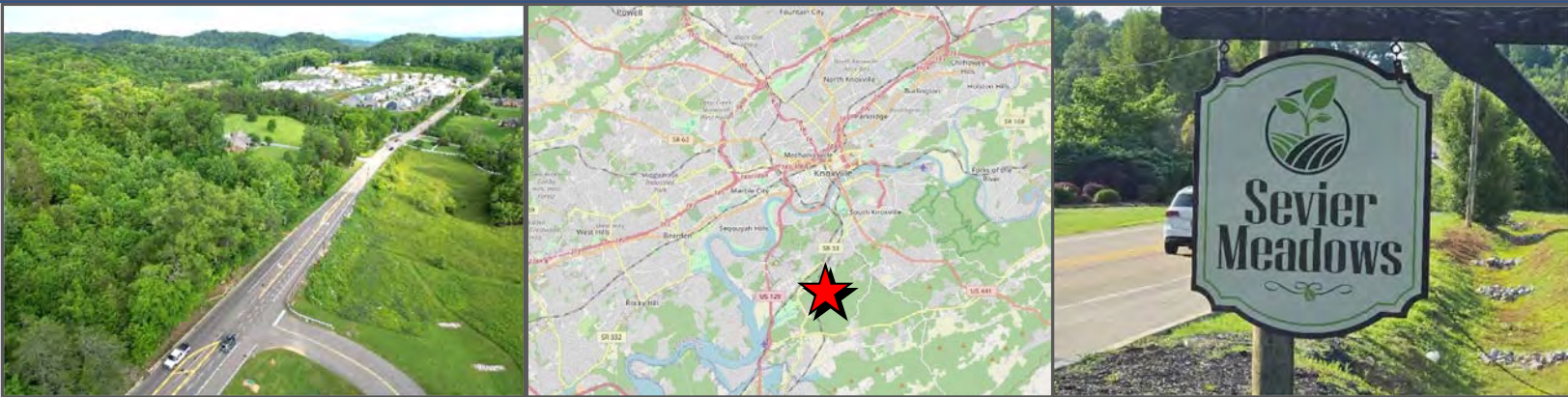
REFERENCE:
PARCEL 22.02
DEED INST. #20180712002507
PARCEL 22.12
DEED INST. #202407160003011
PARCEL 46.02
DEED INST. #20180712002507



REVISION	DATE	DESCRIPTION	BY
1	07/20/26	GENERAL REVISIONS	CLM

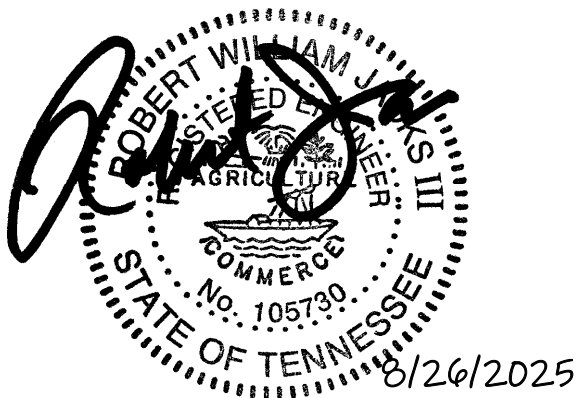


Transportation Impact Study Sevier Meadows – Phase 2 Subdivision Knox County, Tennessee



Revised August 26, 2025

Prepared for:
Mesana Investments, LLC
P.O. Box 11315
Knoxville, TN 37939



8-SG-26-C / 8-F-26-DP

CONCLUSIONS & RECOMMENDATIONS

The following is an overview of recommendations to minimize the transportation impacts of the Sevier Meadows - Phase 2 Subdivision on the adjacent transportation system while attempting to achieve an acceptable traffic flow and safety level.



Maryville Pike at Proposed Entrance: This intersection is projected to operate with minimal vehicle delays and short queues for all movements. A single exiting lane for the subdivision's residents, allowing both left and right turn movements, will be sufficient according to the calculations. However, due to the 20-foot width of the entering and exiting lanes along the boulevard section, it is recommended that the exiting lane be delineated with a separate left and right turn lane at Maryville Pike. A white line with a storage length of 75 feet delineated for left and right turns should be accompanied by white turn arrows for each movement. The delays associated with these exiting vehicle movements are projected to be minimal.

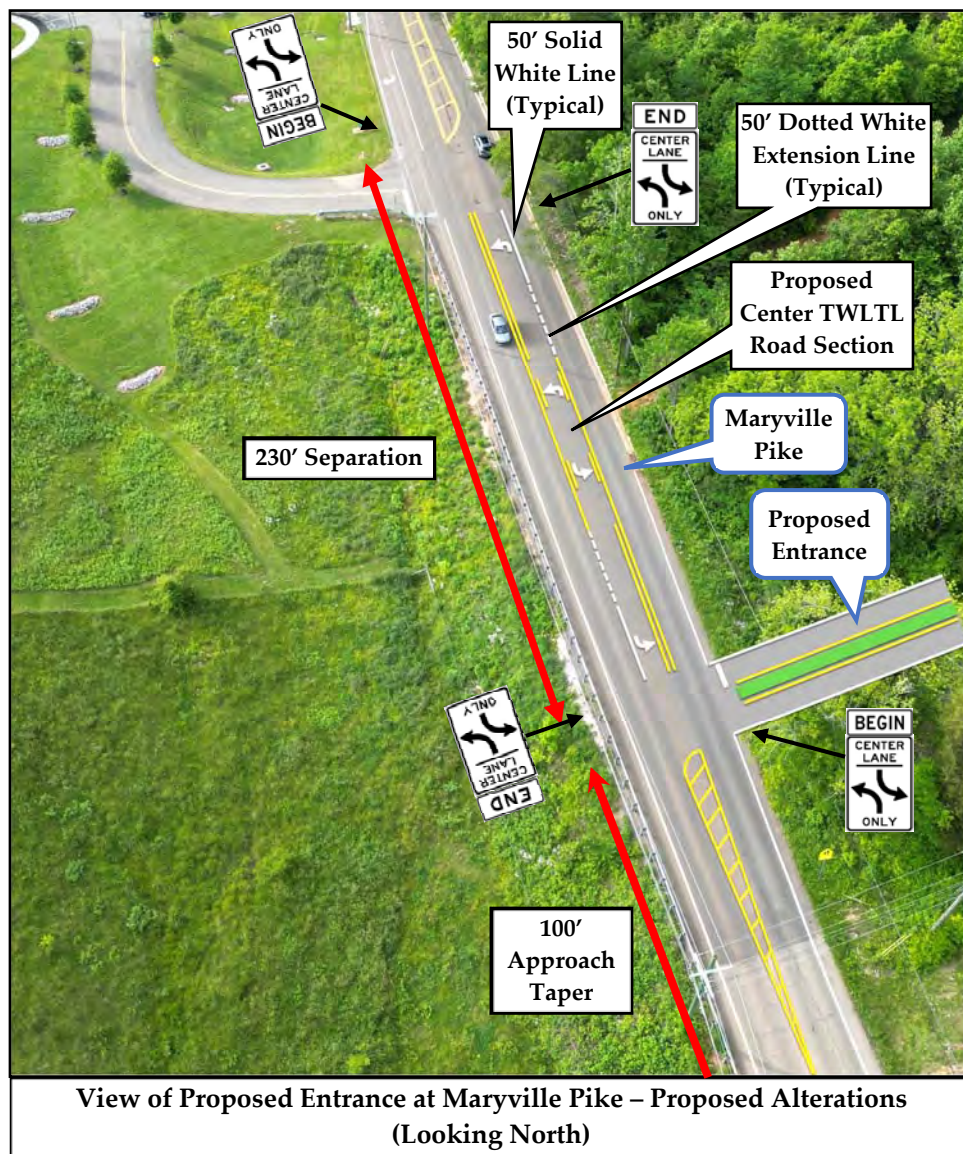
- 1a) A separate northbound right-turn lane on Maryville Pike is not warranted at the Proposed Entrance, but a separate southbound left-turn lane is warranted based on the projected 2028 volumes. However, where a southbound left-turn lane for the Proposed Entrance could be constructed, the center of Maryville Pike is already occupied by the northbound left-turn lane and transition taper for the IC King Park entrance.

IC King Park's entrance will be approximately 230 feet to the northwest of the Proposed Entrance to the Sevier Meadows – Phase 2 Subdivision, from centerline-to-centerline.

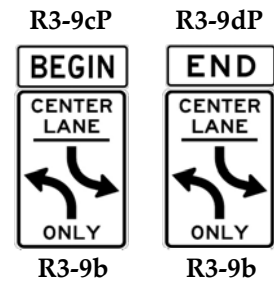
Unfortunately, due to the development property's limited and narrow road frontage along Maryville Pike, there is no other location to provide an entrance to the proposed subdivision. Thus, it is recommended that the center of Maryville Pike be modified as described in the following to provide center storage for southbound left turns into the Sevier Meadows – Phase 2 Subdivision:

- i. The center of Maryville Pike, between the IC King Park entrance and the Proposed Entrance, should be re-configured to continue providing vehicle storage for northbound left-turns into IC King Park and also provide vehicle storage for the new southbound left-turns into the Sevier Meadows – Phase 2 Subdivision. With a centerline-to-centerline separation of 230 feet between these two intersections, it

is recommended that the center of Maryville Pike be re-configured with a two-way left-turn lane (TWLTL). Each end of the center TWLTL should be delineated with 50 feet of vehicle storage by the application of a solid white line, and 50 feet of transition delineated by a white dotted extension line for left turns into IC King Park and the proposed subdivision. The re-configuration will need to include a revised and relocated approach taper of 100 feet for northbound traffic on Maryville Pike in advance of the new TWLTL and Proposed Entrance. It is recommended that the left-turn lane/TWLTL re-configuration on Maryville Pike be completed by the time the 12th housing unit in the development is constructed. A graphical representation of the proposed re-configuration is shown in the image below and should follow TDOT and MUTCD regulations.

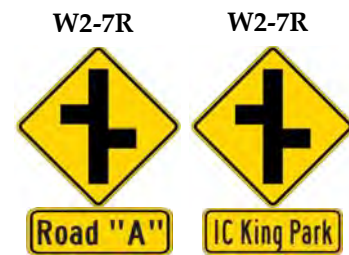


- ii. At this location, in addition to the pavement markings and lane re-configuration in the center of Maryville Pike, it is recommended that Two-Way Left Turn Only Signs (R3-9b) be installed on each approach of Maryville Pike at or near the start of the center TWLTL. These signs should be supplemented with a “Begin” plaque (R3-9cP) at the top of the signs. Near the end of the TWLTL, each approach of Maryville Pike should also be posted with Two-Way Left Turn Only Signs (R3-9b) with an “End” plaque (R3-9dP) at the top of the signs. These signs should be positioned without interfering with the viewing of existing road signage.



- iii. The longest 95th percentile vehicle queues for these turn lanes on Maryville Pike were calculated to be 25 feet for the northbound left turn into IC King Park and 45 feet for the southbound left turn into the proposed Sevier Meadows – Phase 2 Subdivision during the projected 2028 PM peak hour. These projected queue lengths will be fully contained within the recommended center TWLTL.

- iv. Due to the constrained conditions of the back-to-back intersections on Maryville Pike, it is recommended that the northbound and southbound approaches on Maryville Pike be posted with offset side road intersection warning signs and street name plaques in advance of the two t-intersections at the IC King Park entrance and Road “A” in the Sevier Meadows – Phase 2 Subdivision. For both approaches on Maryville Pike, the signs should be Right Offset Side Road Signs (W2-7R). For the northbound approach, the sign should be posted a minimum of 175 feet in advance of the Proposed Entrance, Road “A”. For the southbound approach on Maryville Pike, the sign should be posted a minimum of 125 feet in advance of the IC King Park entrance.



- 1b) Future landscaping, existing vegetation, or existing or proposed signage must not impact the intersection sight distances looking from the Proposed Entrance to the north and south on Maryville Pike.
- 1c) Based on the highest posted speed limit of 45 mph on Maryville Pike in the vicinity of the Proposed Entrance, the required intersection sight distance is 530 feet for exiting left

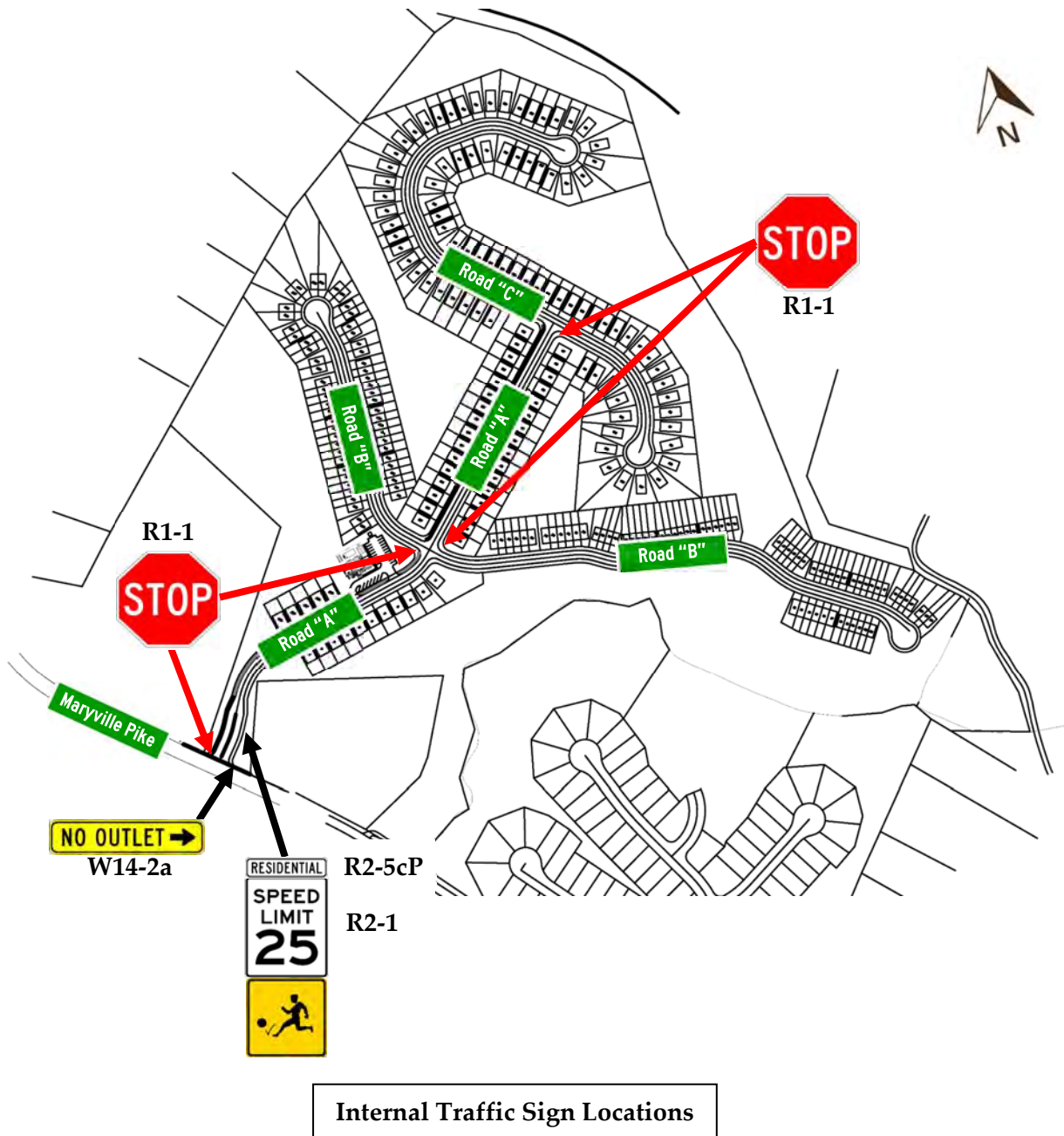
and right-turning vehicles. The existing sight distances from the Proposed Entrance at Maryville Pike were estimated visually to be adequate in both directions, assuming that the existing vegetation on the east side of Maryville Pike is maintained in the future.

- 1d) It is recommended that a Stop Sign (R1-1) be installed and a 24" white stop bar be applied to the Proposed Entrance approach at Maryville Pike. The stop bar should be applied a minimum of 4 feet away from the edge of Maryville Pike and placed at the desired stopping point that maximizes the sight distance.



Sevier Meadows - Phase 2 Subdivision Internal Roads: The layout plan shows three new streets, as shown in Figure 3.

- 2a) A 25 mph Speed Limit Sign (R2-1) with additional plaque signage, as shown in the image below, is recommended to be posted near the beginning of the Proposed Entrance road, Road “A”, off Maryville Pike. It is also recommended that a “No Outlet” Sign (W14-2a) be posted at the front of the subdivision at Maryville Pike. Stop Signs (R1-1) are recommended to be installed at the internal road intersections, as shown in the image below.



- 2b) Sight distance at the new internal intersections must not be impacted by new signage, parked cars, or future landscaping. With a proposed speed limit of 25 mph in the development, the required internal intersection sight distance is 250 feet. The civil site designer should ensure this internal sight distance is met.
- 2c) The civil site designer should provide a centralized mail delivery center location within the development for the subdivision residents.
- 2d) All drainage grates and covers for the residential development must be pedestrian and bicycle-safe.
- 2e) A sidewalk is proposed along the northwestern side of internal Road “A”. Concrete sidewalks should be 5 feet wide and have appropriate ADA-compliant ramps at intersection corners with detectable surfaces. If applicable, white-painted crosswalks should be applied to the internal road pavement where pedestrians are expected to cross the intersections. Internal crosswalks should have a white transverse marking as shown in TDOT Standard Drawing T-M-4.
- 2f) For residential subdivisions with more than 150 housing units, Knox County has a longstanding unwritten design policy requiring a boulevard road section at the entrance if a secondary access point is not provided. Since the proposed layout of the Sevier Meadows – Phase 2 Subdivision only provides one means of ingress and egress, the subdivision entrance will be designed and constructed with a boulevard roadway section. This design should be coordinated with Knox County Engineering and Public Works and subject to their review and approval.
- 2g) All road and intersection elements should be designed in accordance with the American Association of State Highway and Transportation Officials (AASHTO), TDOT, and Knox County specifications and guidelines to ensure proper operation.



Maryville Pike: The section of Maryville Pike, just south of the Proposed Entrance location, currently has a marked and delineated passing zone for northbound traffic. This passing zone is 760 feet in length. While the sight distance along Maryville Pike appears adequate for this zone, it is recommended that TDOT consider eliminating this passing zone due to safety concerns, given the rise in development in the adjacent area and the increased intersecting volumes entering and exiting near this section of Maryville Pike.

In addition, during the traffic counts, passing movements were observed within the vicinity of the IC King Park Entrance, outside the designated passing zone. The presence of a nearby existing passing zone, further to the south, may also contribute to these occurrences. If eliminated, this passing zone would require re-striping the centerline of Maryville Pike and moving the “No Passing Zone” Sign (W14-3) currently located on the east side of Maryville Pike (and north of Bayonet Lane) to the north of the Proposed Entrance and facing southbound traffic.

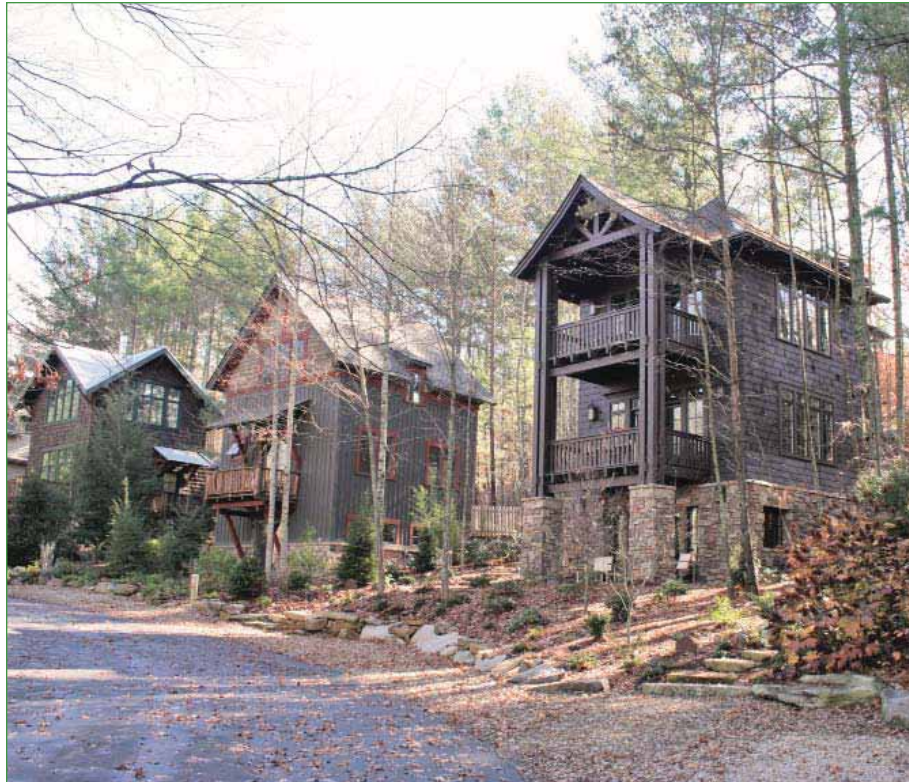
Exhibit C

Development Guidelines

MAXIMUM BUILDING HEIGHT

With few exceptions, such as near downtown and some office districts, the maximum building height of Knoxville's and Knox County's zoning regulations is 35 feet. This allows a three-story building. It is recommended that the maximum building height in the Hillside and Ridgetop Protection Area be 35 feet for all uses, as measured from the average natural grade of the proposed building footprint to the roofline (if a flat roof is used) or to the midpoint of the height of a pitched roof.

Water utilities, including tanks or towers, play a role in determining the acceptable height of buildings. Utility districts should be involved in the planning process to ascertain water pressure and related utility implications relative to height.

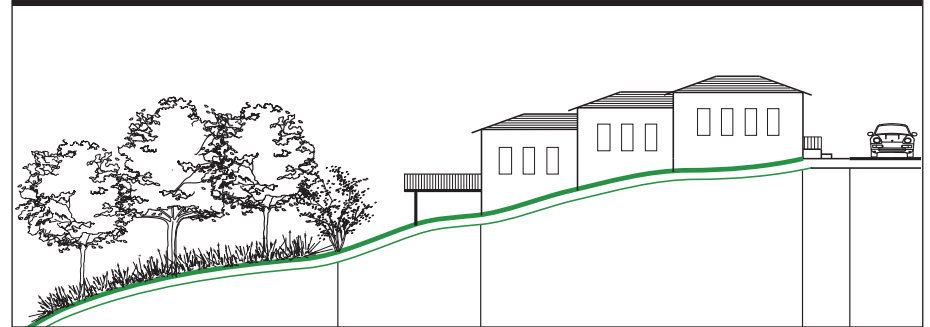


Existing zoning codes limit building heights to 35 feet. Hillside-oriented houses such as these are examples of structures that would meet the recommended 35 foot maximum height standard.

LOW AND RURAL RESIDENTIAL DENSITY DEVELOPMENT

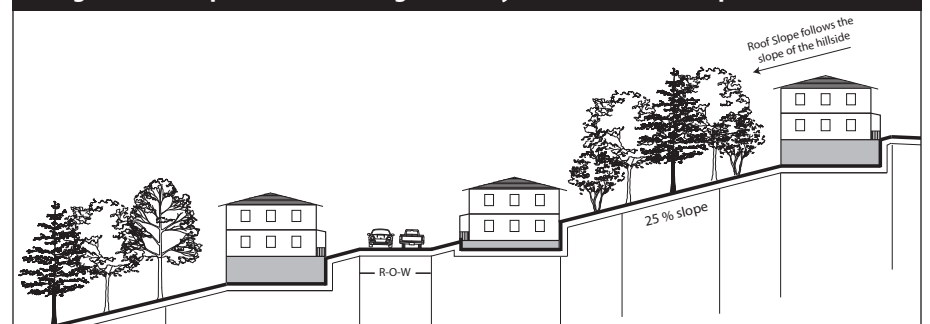
Detached and attached dwellings constitute the majority of uses that would be developed in the Hillside and Ridgetop Protection Area. The following design recommendations help achieve the goal of low impact development.

Figure 1: Example of Terrain Adaptive Architecture



- Terrain adaptive architecture is recommended. Structures should be built into the natural slope of the land to minimize cut and fill; pad grading (for example, preparation for a concrete building slab) should be avoided.
- Street pavement width should be minimized, and in some circumstances it may be reduced to 20 feet; in no case should it exceed 26 feet. Right-of-way width should not exceed 40 feet for 20 foot wide roads.
- Front yard setbacks may be reduced to limit overall site disturbance under some circumstances, such as when there is a fairly level space near the road and the back of the lot falls steeply downhill. These smaller setbacks may be approved via use-on-review or in exceptional cases of pre-existing lots, when a hardship is demonstrated.
- Rooflines should generally be designed to have a pitch that follows the natural slope; however, portions of the valley-facing facade can be accented by gables. Roofing material colors should be of earth tones (grays, greens, tans, and browns).

Figure 2: Example of Reduced Right-of-Way, Setbacks, and Adaptive Rooflines



- Lot orientation should be with the natural grade of the land. This will generally be a lateral orientation with a road running along the contours of a hillside. Additional lot width may be needed to accommodate driveway access.
- Residential building materials should be comprised of fire resistant material such as stone, brick or wood siding over a masonry foundation (see Firewise safety recommendations, page 48). Exterior material colors should be of earth tones such as grays, greens, tans, browns and natural wood.
- Tree preservation should be encouraged particularly on the rear of lots and near ridgetops to screen homes; at least 85 percent of trees within 100 feet of a ridgetop should be conserved.
- Homes should be clustered on more level land areas of the site, while areas with slopes 25 percent greater and ridgetops should be left undisturbed or developed at a very low density.
- Parking guidelines to minimize site disturbance include the following:

For detached dwellings:

On-street parking may be considered to meet off-street parking requirements on steep hillside sites, including bulb-outs with parking stalls running parallel to a road.

Off-street parking options include:

“Tucked-under garages” constructed within a house, minimize clearing and grading. Several designs are possible in placing a garage under a house: when the house is uphill and close to the right-of-way, a “tucked-under garage” can be a good solution; when access can be provided to the side of house a basement garage is another good solution.

Parking pads near the right-of-way also offer a solution, especially on small lots, as long as sight distances are adequate where the pad meets the road.

For attached dwellings, such as condominiums and duplexes, which are best sited on more level portions of a site, the following options are recommended:

On-street parking may be considered, using bulb-outs with parking stalls running parallel to a road.

Off-street parking under a structure is to be encouraged on hilly locations to reduce tree canopy removal.



This parking pad is an acceptable means to provide off-street parking in Asheville's low density hillside district to avoid the clearing that a conventional driveway would require.



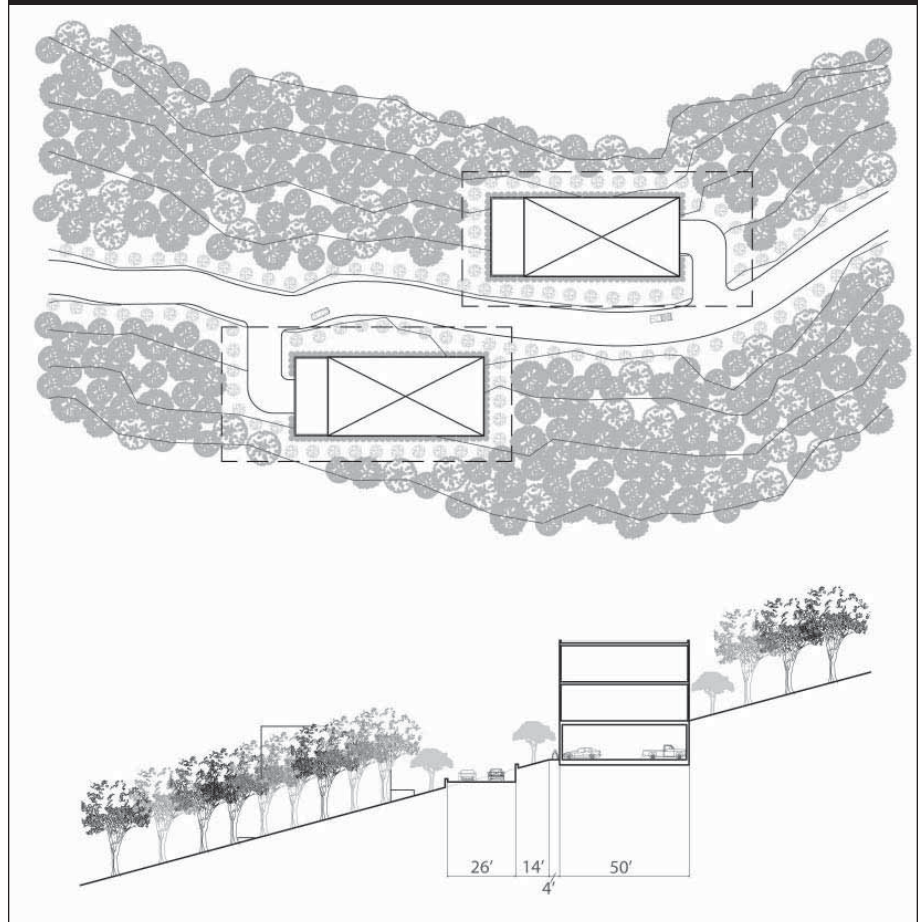
A local example of a “tucked under garage”

MEDIUM DENSITY RESIDENTIAL AND OFFICE DEVELOPMENT

Portions of the Hillside and Ridgetop Protection Area are characterized by moderate to steep slopes which present challenges for development in regard to public safety and environmental concerns. Under some circumstances, limited medium density housing or office development may be appropriate in area where transportation systems are very good and provisions for housing near jobs have been found to be a prudent land use policy (such as in the Tennessee Technology Corridor). In order to provide proper development guidance for such areas, the following recommendations should be considered in creating site plans:

- To reduce the amount of hillside site disturbance, development should be focused in more level areas below or on the less steep parts of the Hillside and Ridgetop Protection Area.
- Allow consideration of medium density residential and office uses on slopes of 15 to 25 percent with certain provisions to reduce the amount of site disturbance: (1) smaller setbacks should be considered to avoid slope cuts, and (2) these uses should only be considered when the building footprint does not exceed 5,000 square feet per one acre when the slope is closer to 15 percent and graduating to one 5,000 square foot building footprint per two acres when the slope is closer to 25 percent. All new proposals for medium density and office uses should be subject to the approval of a use on review and site plan by the Metropolitan Planning Commission. Conservation measures and other incentives may be used to protect as much of the building site as possible (a summary of incentives is presented in Appendix H).
- The maximum allowable height of a building should not exceed 35 feet, measured from the average natural grade of the building site.
- The criteria for the conservation of Hillside and Ridgetop Protection Areas focuses on the prevention of erosion and the preservation of trees and scenic views. As such, new development, including non-residential buildings, parking areas, artificial berms, and detention/retention ponds, should not be permitted on slopes in excess of 25 percent.
- Road and access should be accommodated with low-impact design, including narrower pavements and rights-of-way (these are further discussed on page 38).
- Under building parking structures, or terraced parking, should be used to preserve hillside and ridgetop protection areas.
- Shared parking and on-street parallel parking bays should be used where possible to minimize land disturbance, minimize impervious surface coverage, and preserve natural beauty.
- Maximum allowed parking for medium density and office density should be further examined to limit surface parking impacts; the suggested standards for office development is that the maximum parking should not exceed 2 spaces per 1,000 square feet of gross floor area.

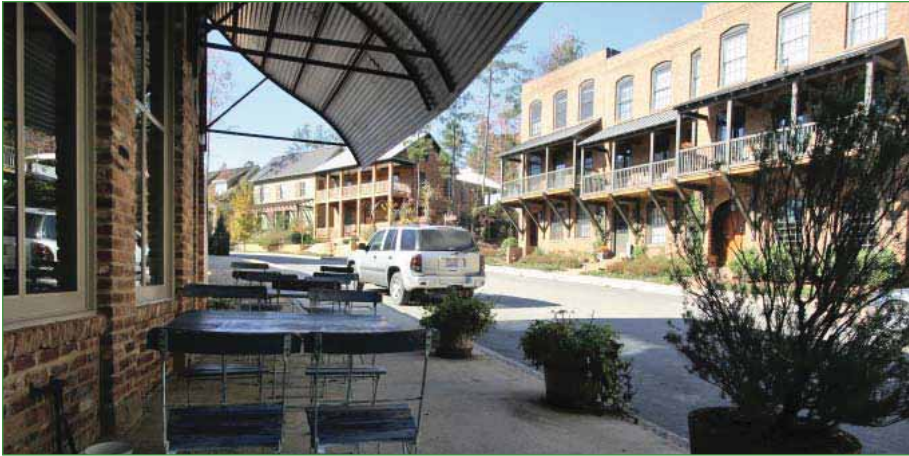
Figure 3: Example of Office Development on a Hillside with Underground Parking



COMMERCIAL AND INDUSTRIAL DEVELOPMENT

As noted previously, new commercial and industrial rezonings should not be permitted in the Hillside and Ridgetop Protection Area. However, pre-existing commercially zoned vacant property and new development on that land or on land adjoining the protection area should be considered in view of the following:

- Incentives should be explored to foster development totally outside of the Hillside and Ridgetop Protection Area. These should include consideration of a reduction in off-street parking, retail parking, shared parking, decreased setbacks and taller buildings on the level land.



In this mixed-use and commercial development the impact to the hilly terrain was limited by reducing the setbacks of the restaurant and condominiums (top) and the wooded setting behind the commercial space and housing units was also saved (bottom).

SUBDIVISION REGULATIONS

Development within the Hillside and Ridgetop Protection Area requires alternative design standards in order to protect public safety and environmentally sensitive areas. The current Minimum Subdivision Regulations address hillside development in a limited manner that is not consistently implemented. The Hillside and Ridgetop Task Force recommended that the current regulations be modified to foster safe and effective development with minimum land disturbance.

Infrastructure improvements for development, such as roads and utilities, contribute a significant amount to the total land disturbance of a site. Roads, for instance, in residential neighborhoods are typically 26 feet wide to accommodate on-street parking on both sides of the street while allowing for one continuous, uninterrupted travel lane. In the Hillside and Ridgetop Protection Area, it is anticipated that the intensity of development will be less than in other areas so more narrow streets (20 foot widths) can be acceptable as long as vehicles are not parked on streets. For fire protection needs, when a turn-around is required on a dead end street, roadways should meet all minimum design requirements of the city and county fire officials.

In level areas, underground utilities are typically located to the sides of roads because it is easier to maintain road surfaces when utility repairs are needed. Conventional, “flat land” subdivisions generally have 50 foot wide rights-of-way. However, when road widths are reduced and utilities are located under pavement, the right-of-way width can be reduced and still provide adequate space for utilities. This provides a secondary benefit of reducing the space between the street and the front property line, and reduces the need to clear and grade on steep slopes.

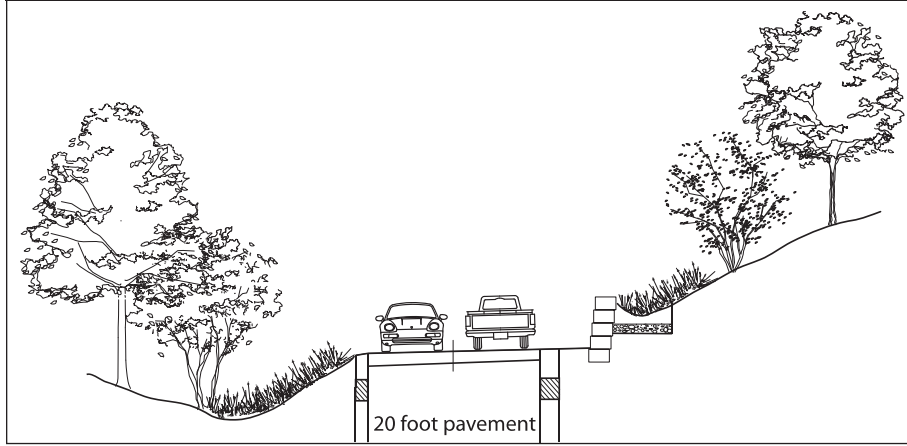
In the Hillside and Ridgetop Protection Area, it is proposed that utilities be placed under road surfaces when possible to reduce the amount of clearing and grading on extremely steep side slopes.² This is likely to be accomplished on a case-by-case basis because: (1) there are so many utility districts in Knox County, which operate independently and have different policies for utility placement, and (2) the city and county engineering departments may adopt different management practices for utility locations relative to road pavement.

Roadway Standards

In view of the input of the city and county engineering and public safety officials, the following hillside standards are recommended:

- Rights-of-Way = 40 feet
- Pavement Width = 20 feet (curb-to-curb; or edge-to-edge if stormwater drainage is provided by swales)
- Maximum Road Grade = City of Knoxville - 12 percent; Knox County - 15 percent
- Maximum Driveway Grade = 15 percent for both the city and county
- Turn-Arounds = In regard to turning radii, including hammerhead and cul-de-sac design, both the city and county follow the *American Association of State Highway and Transportation Officials* standards, and these are adequate for emergency vehicles. City fire officials follow *National Fire Protection Association 1141* standards. In general for a cul-de-sac, these standards require a right-of-way radius of 50 feet and a paved radius of 40 feet.

**Figure 4: Example of Proposed Width for Hillside Road
(20 Foot Pavement within a 40 Foot Right-of-way)**



Setback and Lot Size Recommendations

The placement of structures on hillsides is very important when trying to limit the amount of disturbance. In order to provide the most flexibility, setbacks should be able to be reduced to allow structures in the most appropriate location without encroaching into necessary setbacks for fire protection (some approaches are outlined on page 50). The hillside provisions of the subdivision regulations should be revised to offer greater flexibility in setbacks and larger lot size dimensions that are in keeping with this plan (that is, larger minimum-sized lots than the current 20,000 square feet on slopes that exceed 25 percent).

Proposed Conservation Subdivision Program

Conservation subdivisions are characterized by common open space, compact lots, less road pavement and, sometimes, clustered housing. The purpose of a conservation subdivision is to protect such resources as ridges and farmland while allowing the same housing density under zoning and subdivision regulations. A greater density, called a density bonus, may be offered to encourage conservation in residential development planning.

Open Space Program

The conservation subdivision open space requirement is to protect environmentally sensitive lands. It may also be used to provide recreation opportunities, including a density bonus when public access is provided. The open space requirements are based on the underlying zoning classification and will generally range from 40 to 60 percent of the parcel. The open space is required to be protected from development through a conservation easement.

Primary and Secondary Open Space Areas

The open space land should be determined by several factors; some are primary, others are secondary. Primary conservation areas should be included as open spaces because of environmental values and sensitivity to development, including slopes in excess of 25 percent and the floodplains along stream corridors. Secondary conservation areas are features that should be protected but are not as high a priority, such as forested 15 to 25 percent slopes and farmland.

Density Determination

Residential density will not be less than that allowed under conventional residential zone districts (such as the city's and county's low density residential zoning) or through the rezoning provisions of Planned Residential zoning. Essentially, the minimum lot size of the zone district is divided into the parcel size to determine the density that would be permitted without conservation provisions. Some cities and counties ask for a preliminary plan (sometimes referred to as a "yield plan"), showing the residential lot layout to determine the number of lots that could be created under convention zoning and subdivision codes. Thereafter, the designer can use the flexibility of the conservation subdivision provisions, including reduced lot size and narrower streets, to create a layout that sets aside the open spaces. Fire protection and water supply must also be considered, including the height of water tanks or towers in the area.

Density Bonus Provision

As noted in the zoning policy section (page 34), density may be increased in relation to the conservation of hillside and ridgetops up to 20 percent above the base zone density by setting aside conservation easements on steep forested slopes.

Open Space Management

The management and permanent protection of open space is required to protect the resource from destruction or unscrupulous development. Restrictive mechanisms, including deed restrictions, conservation easements and transfer of ownership to a conservation organization or government, are typical approaches. The management of open space should be handled by the entity that has ownership, such as a neighborhood organization, conservation organization or city or county park department.

Applicable Zoning Districts

The conservation subdivision option should be available within most residential zoning districts. The potential hillside zoning overlay district and the county's agricultural zoning district are best suited to protect hillside and ridge resources; a density bonus should be considered to foster conservation. Pre-existing zoning, such as the Low Density Residential (RA) Zone, should also be considered when a developer desires to save such a resource as a hillside by reducing lot size and potentially clustered housing.

Figure 5: Hypothetical Hillside Development Example



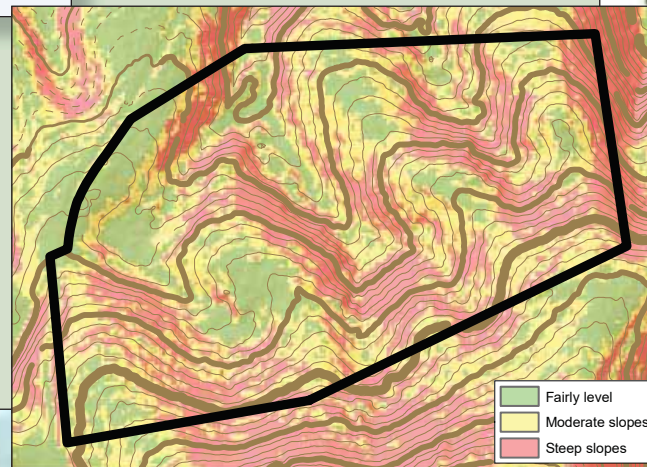
EXISTING SITE TOPOGRAPHY:
Heavily forested, widely varied terrain

**Scenario A:
CONVENTIONAL SUBDIVISION**

The developer examined the topographic constraints of the site and originally proposed a plan for six large lots.

**Scenario B:
CONSERVATION SUBDIVISION**

Because the zoning allowed ten units on the site, the developer considered a conservation subdivision layout with clustered housing, that would allow a 20 percent density bonus for preserving the surrounding hillside with a conservation easement.



REFORESTATION

Background

Hillside reforestation is a healing process when trees are planted on sites that were cleared and graded. Reforestation can also be a natural phenomenon when land is cleared for timber or development. An overview of the city's tree planting standards is presented on page 21. The county has no replanting provisions. Both local governments require soil stabilization, such as planting grass. That, however, does not re-establish a forest, and its associated benefits of habitat, beauty and greater water quality protection.

Clearing and grading on steep topography results in extreme landscape and hydrological changes. Some of the scars on Knox County's hillsides are so severe that the devastation cannot be easily remedied. As a result of extensive grading, soils are heavily compacted, limiting infiltration and increasing velocities of runoff. This places increased demands on stormwater infrastructure and limits the recharge of groundwater.

Knox County's existing forests are generally over a hundred years old. When lost, two generations of children will grow up during the 50 to 70 years that it will take a tree to reach maturity. Consequently, the emphasis in the Hillside and Ridgetop Protection Area should be to conserve trees for the benefit of current and future generations. This practice of good stewardship was recommended by citizens in creating this plan.

A Better Grading and Reforestation Practice

In view of the foregoing concerns, task force staff consulted with forestry professionals to identify better practices for slope stabilization and reforestation.³ The most promising method is that of the Appalachian Regional Reforestation Initiative (ARRI), which developed a six step process for grading and reforestation that should be added to the city's and county's engineering and stormwater best practices manuals. The practice is summarized below and is described in detail in Appendix D.

Description of the Recommended Practice

This is an approach to grading and tree planting where hillside forest cover is lost due to construction. It has been demonstrated to be an effective means to avoid soil compaction and difficulties in sustaining tree growth that is associated with conventional grading. The method, which relies on reuse of organic matter, top soil and rock, fosters significant stormwater infiltration and woodland regeneration. It has been tested in the Appalachian region by scientists from the University of Kentucky and Virginia Tech, and is now the standard practice in surface mine restoration. The steps include:

1. Topsoil and rock material from disturbed areas are saved on site at the beginning of a project to create a medium that is suitable for good tree growth and water infiltration.
2. Natural landforms should be mimicked in creating cut-and-fill areas. The majority of the backfill should be placed and compacted using standard engineering practices.
3. The final surface should be prepared by loosely distributing and lightly grading the topsoil and rock mixture, avoiding compaction of the upper few feet. That surface layer, which will form the forest's soil, should be a few feet deep.
4. For immediate erosion control, groundcover should be planted that is slow growing and tolerant of many soil conditions, such as red top and perennial rye grasses or legumes such as birdsfoot trefoil and white clover.
5. A combination of native trees should be selected that will grow rapidly, creating habitat and soil stability. These include oaks, black cherry, redbud and sugar maple; also see Appendix E).
6. The selected species should be planted as seedlings in the dormancy of winter.



This will be the typical appearance after grading -- loosely distributed rock and organic material.



The results of tree growth are significant as can be seen after three years.

Recommended Actions

The following steps are recommended in improving reforestation practices:

- The city and county should adopt the foregoing reclamation process as a slope restoration alternative in their best management practice manuals.
- Because this practice would be a new addition to the city's and county's engineering best management documents, a "test case" should be pursued, potentially offering an incentive (such as a grant) to create a benchmark for the costs and benefits of the method. Several "pilot" steps should be considered: (1) voluntary compliance by a developer to use the method with new construction; (2) use of the technique as a road or public facility project; or (3) a demonstration project in healing a previously cut slope.
- Another alternative method may be forthcoming. A student housing development will likely be created west of Edington Road in the next few years. As part of site plan approval several forested slopes were to be conserved; however, some cut slopes were approved with the understanding that they would be planted with native trees, using a method that has been tested in Athens-Clark County, Georgia. If successful on this Vestal-area site, that method may also be appropriate to adopt as a best management practice.

Cost Advantages

There are two potential cost benefits with the ARRI method: (1) less time than conventional soil compaction methods (that is, continually running a dozer back and forth to compact and smooth a slope); and (2) less stormwater runoff (water penetrates the rougher surface, with its rocks and un-compacted soils and organic debris) to reduce velocity of runoff and encourage infiltration, avoiding sedimentation, large detention basins and other infrastructure costs.

GRADING AND CLEARING

More attention to hillside grading and clearing will realize several goals of this plan: water resource and habitat protection along with public safety objectives such as keeping slopes intact, particularly those with unstable soils. Some land disturbing activities are currently regulated under stormwater permitting processes. Grading, especially as it relates to drainage and water quality, has been the principal concern requiring permitting. In the city, the permit is called a Site Development Permit; in the county, it is called a Grading Permit. Both permits require a plan showing the extent of the grading dimensions and how soil erosion and sedimentation will be mitigated. However, neither permit considers the removal of trees and other vegetation as part of the development plan review processes.

As of 2010, issuance of a grading permit in Knox County or a site development permit in the City of Knoxville require that a surety bond, cashier's check or letter of credit be provided to cover the performance bond costs for construction and grading. These relate to road construction, erosion prevention, sediment control and water quality buffers. The recent economic recession has contributed to several unfinished projects on steep slopes where a letter of credit was accepted as the means to address proper restoration and construction. However, several unfinished, eroding sites have resulted as the result of bankruptcies with no actual funds at local governments' disposal to see the project is properly completed. These sites continue to leach sediment into neighboring properties and water bodies. The restoration costs to local governments on these sites could result in hundreds of thousands to millions of dollars to return the land to a state that does not impact surrounding properties and waters.

The local governments have realized that there are shortcomings to the current bonding systems, especially letters of credit (largely worthless following a bankruptcy). Therefore, efforts to address this situation by the local governments are highly recommended.



Instead of working potential house sites into the hillside topography, the developer chose to clear the entire ridge, ultimately resulting in erosion problems. No lots have been developed.

Land Disturbance Defined

Any activity that results in a change in existing soil, topography or vegetation, including development, clearing, grading and filling, is land disturbance. Under the proposed program, some clearing activities are not to be affected, including agricultural, and utility and emergency work to protect life, property and levels of public services.

Permitting for Land Disturbance

The following would be elements of a land disturbance permitting program:

General Requirements

When applying for building and development permits for property that is in the Hillside and Ridgetop Protection Area, applicants would depict grading and clearing areas with the amount of disturbance limited by the standards on page 31. This should apply to new subdivisions and pre-existing vacant lots. The total disturbance allowance can be used on any portion of the property within the Hillside and Ridgetop Protection Area, except on slopes over a 50 percent grade and on ridgetops. In those areas, total clearing should be limited so that the tree line on ridges remains undisturbed to the greatest extent practicable.

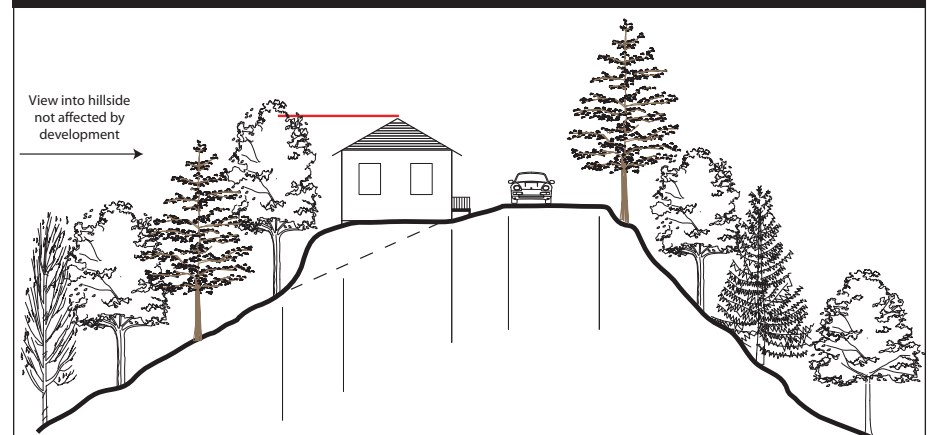
Disturbance Area Delineation

Hillside disturbance areas should be depicted on a site plan and marked in the field so that they can be verified by inspectors, and so that construction crews will know the limits of their operations. The disturbance limits should be marked with barrier fencing or other markings so that forest resources are not destroyed.

Geotechnical Analysis on Potential Landslide Areas

A geotechnical analysis is a review of the surface and subsurface characteristics of soils to determine the properties that are relevant to a project and any associated risks. Soils that are on steep slopes generally have a high slip potential when either

Figure 6: Example of Preserving Tree Ridgeline with Residential Development



the soils down slope or the soils in the hazard area are disturbed. In the Hillside and Ridgetop Area, geotechnical analysis should be required on slopes that are 40 percent or greater, or have soils that are considered to have a high slip potential, before any land disturbing activities can commence.

Reforestation and Landscaping

This is the process of re-establishing trees and ground cover within an area that has been disturbed. For small disturbance areas, like in and around parking areas and around buildings, a landscaping plan should be provided for planting native trees that will grow to provide shade, reduce runoff and improve the aesthetic appearance of the development. For large reforestation needs, such as extensive cut slopes, the Hillside Reforestation method depicted on pages 43-44 is an alternative that has merit and should be considered.

Ridgetops

A ridgetop is generally an area of 0 to 15 percent slopes at the pinnacle of a hillside. These areas will be delineated when a development plan is submitted for review (see the development guidelines, page 37). Tree line conservation is necessary in this area because of their prominence on a community's landscape; guidelines are provided on page 38. In some cases, new trees should be planted. A list of appropriate species is presented in Appendix E.

TIMBER CUTTING AND LOGGING

Forest clearing and grading for development purposes is a vastly different practice than growing and cutting timber as an agricultural endeavor. Under state law, zoning cannot limit agricultural practices, which include tree harvesting for lumber or other commodities. Two Tennessee zoning-related statutes are Title 13, Chapter 7, Section

114 (regarding county zoning powers), and Title 6, Chapter 54, Section 54 (regarding a city's zoning powers) cover this limitation. Statute 6-54-126 is illustrative:

“For any land that is used for agricultural purposes as of May 10, 1998, a municipality may not use its zoning power to interfere in any way with the use of such land for agricultural purposes as long as the land is used for agricultural purposes.”

Additionally, under the Tennessee Right-to-Farm Act (Tennessee Statute 43-26-103), farmers are protected from nuisance suits when a farm operation is carried out in conformity with generally accepted agricultural practices.

Conserving and growing trees that will ultimately be used for lumber or related uses are agricultural purposes. Timber-producing practices can be regulated, however, by standards that assure that cutting and logging are carried out in a manner: (1) to conserve soil resources; (2) to foster forest regeneration follow timbering; and (3) to reduce impacts to public roads and adjacent properties.

Knoxville already has a development code, which is not part of the zoning ordinance, to provide guidance for timbering operations. The code limits the amount of clearing in a five year period and requires a site plan to depict the forest area that is to be cut. Owners of single family house lots are exempted from the ordinance. Knox County does not have a tree protection and timber production ordinance.

In urban and suburban areas, timbering can impact neighborhoods because of noise from machinery, issues with trucks entering highways, damage to roads, clean-up costs (when management is poor) and potential property value losses. In view of these concerns, both the city and county should adopt code changes to better regulate timber production and logging operations. The codes should address the following:

- Forest regeneration using the best management practices recognized by the state of Tennessee;
- Preparation of a timber cutting and future forest management plan reviewed by a professional forester;
- A time frame after cutting and logging to allow forest to grow. (In other words timbering should not be a precursor to development, merely for the purpose of cutting trees without an intent to further produce trees as agricultural products. This can be cross-referenced in subdivision regulations.);
- Exemptions from the tree cutting provisions for house lots of a certain size (such as under two acres) and for such emergency situations as ice and wind storms;
- A provision for protection of specimen trees (that is, trees of outstanding size that are determined by the forester who prepares the management plan to be noteworthy to this region).

Administration

ZONING AND PLANS REVIEW

Planned Zone Districts

When a zoning change is requested, such as agricultural to residential, planned residential zoning should be recommended by MPC staff and adopted by the legislative bodies. That has been the practice in following General Plan policies for a decade now and should be continued. Planned residential zoning requires site plan review, providing the opportunity to more fully consider the most appropriate natural locations for housing, open space conservation and infrastructure. Consequently, this type of zoning is a most appropriate means to balance private and public benefits.

Zoning Overlays and Plans Review for Permitting

In addition to policies related to rezoning decisions, an amendment to zoning or land development codes is recommended to address (1) consideration of a hillside and ridgetop overlay district, or (2) standardized review of parcel development via the building permit process. Overlay districts are used in many cities and counties, including Brentwood, Tennessee; Fayetteville, Arkansas; and Huntsville, Alabama. Standardized review is a procedure that has proved to be worthwhile in Asheville. One or the other method could be an effective way to address consistency in all hillside development approvals, including cost-saving measures, such as reduced setbacks, narrower roads, forest conservation and density. The proposed program for each alternative is outlined below.

Hillside Overlay Zoning District

An overlay district does not change the permitted residential uses of the “underlying” zone; however, it would establish additional review of housing density and location of development areas. An overlay would establish guidelines for new construction and a review process to assure that development and conservation are in better balance. The geographical basis for the overlay would be the Hillside and Ridgetop Protection Area. Zoning overlays have been used for years to assure that certain design standards are addressed. City or county officials are familiar with historic, downtown design and technology corridor overlay districts. Because an overlay district can be easily depicted on the zoning map, property owners, developers and development services staffs can readily see the overlay in relation to the underlying zone. The Knoxville Utilities Board sees an advantage in having an overlay as a “trigger” to assure that water supply and fire protection are always considered in initial stages of development planning.

Standard Review Under Building Permit Processes

Asheville has mastered this system, which is tied to their geographic information system and their building permit process. Essentially, an extension of the method to Knoxville and Knox County would work under the following scenario. Standards are adopted for intensity of use, clearing and road widths to reduce development impacts in relation to

Appendix D

BEST MANAGEMENT PRACTICE: HILLSIDE RESTORATION

Cut Slope Stabilization and Reforestation

This is an approach to grading and tree planting on steep topography where forest cover is lost due to construction of buildings, structures and roads. It has been demonstrated to be an effective means for avoiding soil compaction and difficulties that can arise from trying to achieve tree growth on conventionally graded slopes. The method, which relies on reuse of organic matter, top soil, and rock fosters significant stormwater infiltration and woodland regeneration. It has been tested in the Appalachian region by scientists from the University of Kentucky and Virginia Tech, and is now the standard practice in surface mine site restoration.

Suitable Applications

- This practice should be used in preparing a site for building construction that is at the edge of or within a hillside protection area, particularly in grading a natural slope of 15 percent or more.
- Road or facility construction at the toe of a forested slope may also be considered.

Proposed Hillside Forest Reclamation Process

Before clearing and grading a site, consider the following site priming practices to better support reforestation

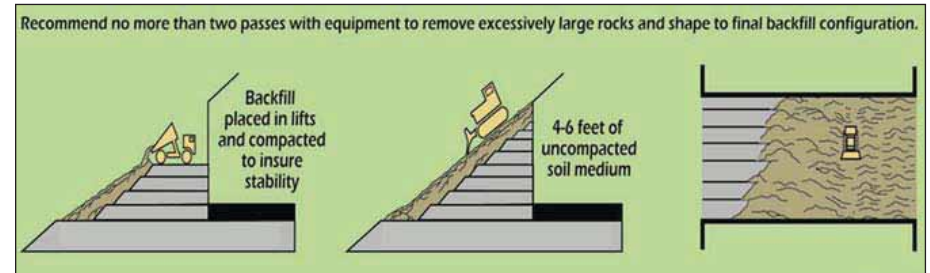
Step 1.

Save topsoil and rock material from the disturbed areas of the site to create a rooting medium that is suitable for good tree growth. The medium should be comprised of topsoil and/or a topsoil and rock mixture and at a depth of 4 feet (lesser depths may be acceptable with compatible tree species).



Step 2.

Loosely grade (maximum of 2 passes with heavy grading equipment) the topsoil or topsoil and rock mixture established in step one to create a non-compacted growth medium. Trees will not survive in heavily compacted soils.



Step 3.

Mimic natural landforms when creating cut and fill areas, rather than heavily benched/terraced patterns. The majority of the backfill should be placed and compacted using standard engineering practices – but not as the final surface.

That surface layer, which will form the forest's soil, should be at least four feet deep (lesser depths may be acceptable with compatible tree species) and only lightly graded (no more than 2 passes with equipment). Surface grading on longer and steeper slopes should be minimized, provided that doing so does not jeopardize stability.

To re-establish a healthy, native forest after disturbance, final grading must minimize surface compaction. This can be achieved by:

- dumping and leveling in separate operations,
- leveling with the lightest equipment available, using the fewest passes possible, and during dry conditions, and
- permanently removing all equipment from an area after leveling.



“Tracking in” operations (bulldozer treads creating depressions to trap seeds and water) actually compact the soil and hinder tree-growth, and should be avoided unless necessary for slope stability. Rubber tired equipment should not be used in final grading.



Step 4.

Use groundcovers that are compatible with growing trees. Groundcover for reforestation requires a balance between erosion control and competition for the light, water and space required by trees.

This can be achieved through the use of grasses and legumes that are slow growing, have sprawling growth forms and are tolerant of a wide range of soil conditions. Recommended mix examples include:

- Grasses – red top and perennial ryegrass
- Legumes – birdsfoot trefoil, white clover

This groundcover mix increases seedling survival and controls erosion in the long term as trees mature and the forest forms.



Step 5.

Plant two types of trees - early successional species for wildlife and soil stability, and native trees. The species should be mixed throughout the site, not planted in single-species blocks.

A mix of the following types of trees are recommended:

- Large maturing trees - oaks, black cherry, sugar maple, white ash and/or other native species (see the Tree Conservation and Planting Plan species list).
- Open site thriving trees – bristly locust, redbud, dogwood and crab apple (use those best suited for the area).



Step 6.

Use proper seedling care and tree planting techniques. Poor tree survival is often due to improper seedling handling or planting. Seedlings should never be allowed to dry out during storage and handling prior to planting, and should be kept dormant until planting.

Seedlings should be:

- Kept cool, but do not allow freezing
- Protected from direct sunlight
- Not exposed to high temperatures
- Planted in late winter to early spring
- Planted at a proper depth and firmly enough to ensure survival

Reputable and experienced tree planting crews are recommending for broad-scale operational tree planting.

Public Notice and Community Engagement

Planning strives to provide community members with information about upcoming cases in a variety of ways. In addition to posting public notice signs, our agency encourages applicants to provide information and offer opportunities for dialogue related to their upcoming case(s). The contact information you provide in your application may be used for that purpose. We require applicants to acknowledge their role in this process.

Sign Posting and Removal

The Administrative Rules and Procedures of the Knoxville-Knox County Planning Commission require a sign to be posted on the property for each application subject to consideration by the Planning Commission.

Planning staff will post the required sign. If a replacement sign(s) is needed, the applicant is responsible for picking up the new sign(s) from Planning and will be charged \$10 for each replacement.

Location and Visibility

The sign must be posted on the nearest adjacent/frontage street and in a location clearly visible to vehicles traveling in either direction. If the property has more than one street frontage, the sign should be placed along the street that carries more traffic. Planning staff may recommend a preferred location for the sign to be posted at the time of application.

Timing

The sign(s) must be posted not less than 12 days prior to the scheduled Planning Commission public hearing and must remain in place until the day after the meeting. In the case of a postponement, the sign can either remain in place or be removed and reposted not less than 12 days prior to the next Planning Commission meeting. The applicant is responsible for removing the sign after the application has been acted upon by the Planning Commission.

Acknowledgement

By signing below, you acknowledge that public notice signs must be posted and visible on the property consistent with the guidelines above and between the dates listed below.

8/1/26

8/14/26

Date to be Posted

Date to be Removed

Have you engaged the surrounding property owners to discuss your request?

☐ Yes ☒ No

☐ No, but I plan to prior to the Planning Commission meeting

Applicant Signature

Applicant Name

Date



Scott Davis

6-23-2026