

CURVE DATA

CURVE NATHN-1
P.I. 10+98.74
PC 10+60.87
PT 11+35.47
Δ 24° 25' 29" (RT)
D 32° 44' 26"
R 175.000
L 74.601
T 37.876

CURVE NATHN-2
P.I. 12+48.11
PC 12+10.23
PT 12+84.84
Δ 24° 25' 29" (LT)
D 32° 44' 26"
R 175.000
L 74.601
T 37.876

Certification of Concept Plan.
I hereby certify that I am a registered engineer, licensed to practice engineering under the laws of the State of Tennessee. I further certify that the plan and accompanying drawings, documents and statements conform to all applicable provisions of the Knoxville-Knox County Subdivision Regulations except as has been itemized and described in a report filed with the Metropolitan Planning Commission.

Registered Engineer: Robert G. Campbell
Tennessee Certificate No. 104281

I HEREBY CERTIFY THAT THE RECOMMENDED SIGHT DISTANCE OF 250 FEET CAN BE ACHIEVED IN BOTH DIRECTIONS ALONG LONAS DRIVE FROM THE PROPOSED ENTRANCE

AASHTO STANDARDS:

LONAS DRIVE (35 MPH SPEED LIMIT)
STOPPING SIGHT DISTANCE = 250 FEET
INTERSECTION SIGHT DISTANCE = 330 FEET

MEASURED SIGHT DISTANCE
RIGHT = 640 FEET
LEFT = 723 FEET

PROPOSED PRIVATE ROADS (20 MPH SPEED LIMIT)
STOPPING SIGHT DISTANCE = 115 FEET
INTERSECTION SIGHT DISTANCE = 225 FEET

ALTERNATIVE DESIGN STANDARDS:
1) PRIVATE ROAD WITH 40' R.O.W. AND 20' PAVEMENT
2) INTERSECTION GRADE FROM 1% TO 3% AT LONAS DRIVE AND NATHAN SPRINGS WAY.
3) INTERSECTION GRADE FROM 1% TO 3% AT NATHANS COVE WAY AND NATHANS SPRINGS WAY.

VARIANCES:
1) REDUCTION OF INTERSECTION SPACING FROM 300 FEET TO 125 FEET BETWEEN SHIRLEY WAY AND NATHAN SPRINGS WAY.

WAIVERS:
1) CLOSURE OF DRAINAGE AND UTILITY EASEMENTS FOR DETENTION EASEMENTS AND ALONG SOUTH LINE OF LOT 14.

PRELIMINARY LOT AREAS SUMMARY			(30% max)		(40% max)
LOT NO	TOTAL AREA (SQ FT)	HOUSE AREA (SQ FT)	BUILDING COVERAGE	IMPERVIOUS AREA (SQ FT)	IMPERVIOUS COVERAGE
1	5,397	1200	22%	2148	39.8%
2	5,493	1200	22%	2148	39.1%
3	5,500	1200	22%	2148	39.1%
4	5,500	1200	22%	2148	39.1%
5	5,500	1200	22%	2148	39.1%
6	5,500	1200	22%	2148	39.1%
7	5,570	1200	22%	2148	38.6%
8	6,140	1200	20%	2148	35.0%
9	10,271	1200	12%	2924	28.5%
10	8,518	1200	14%	2970	34.9%
11	6,810	1200	18%	2148	31.5%
12	6,746	1200	18%	2148	31.8%
13	6,759	1200	18%	2148	31.8%
14	8,508	1200	14%	2148	25.2%

NO.	DATE	DESCRIPTION	BY	CHK.
REVISIONS				



ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

NATHAN'S COVE
CONCEPT PLAN

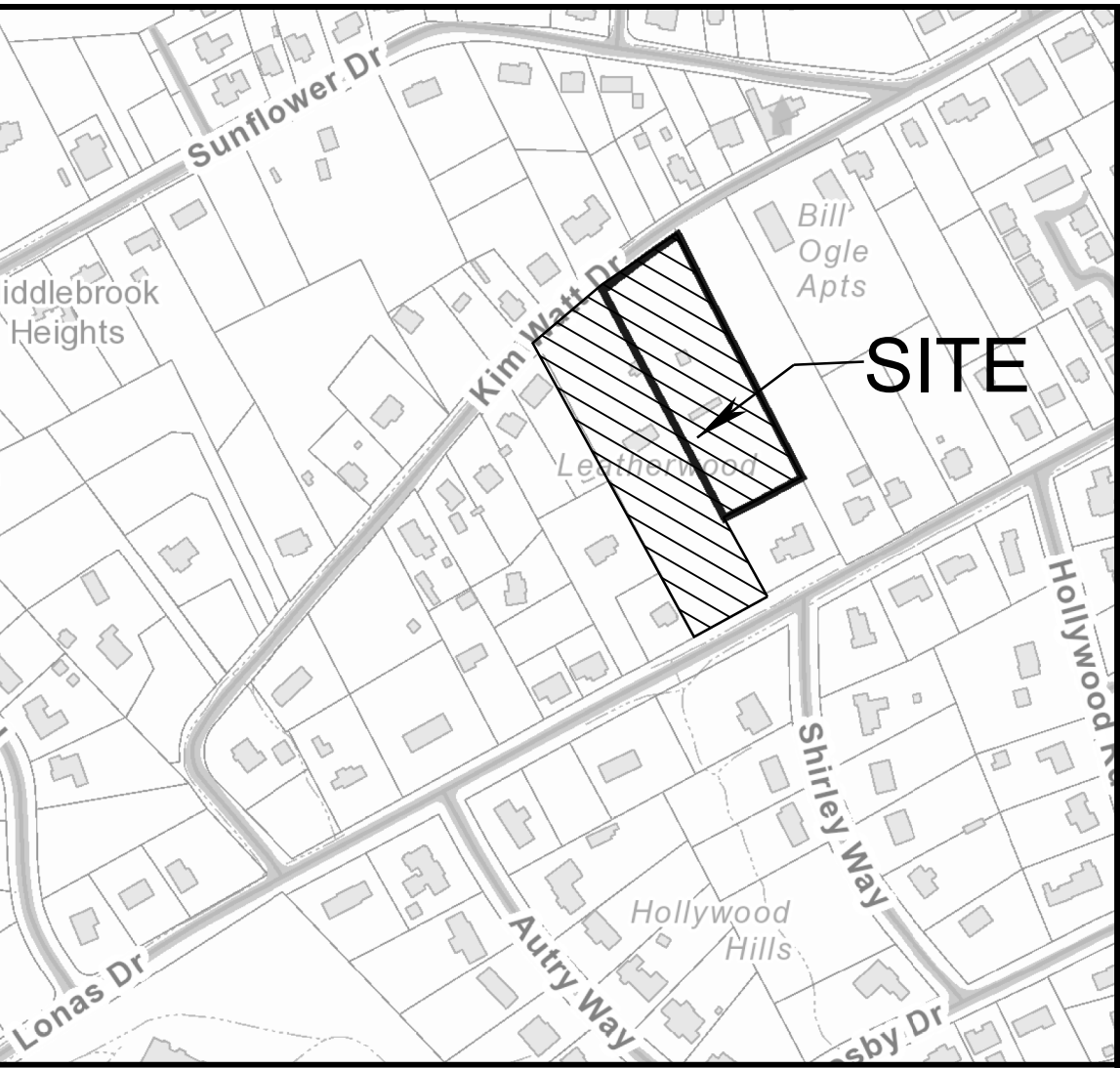
GENERAL LAYOUT
PLAN VIEW

DESIGNED BY GMT	CHECKED BY RGC	SCALE 1" = 40'	SHEET ONE NO. 1
DRAWN BY GMT	DATE 11-18-23	FILE NO. 23137	OF 2 SHEETS

OWNER/DEVELOPER:
RAINIER SERVICES, LLC
7017 HARTWINN LANE
KNOXVILLE, TN 37918
DAVID DROZHZHIN
(865) 200-9521

OWNER:
BILL A. KING
5132 BUCKHEAD TRAIL
KNOXVILLE, TN 37919

ENGINEER:
ROBERT G. CAMPBELL
AND ASSOCIATES
7523 TAGGART LANE
KNOXVILLE, TN 37938
PHONE: (865) 947-5996
FAX: (865) 947-7556



LOCATION MAP - N.T.S.

- NOTES:
- EXISTING CONTOURS FROM K.G.I.S.
 - THE HOMEOWNERS ASSOCIATION OR OTHER LEGAL ENTITY SHALL BE ESTABLISHED TO ADDRESS MAINTENANCE OF THE PRIVATE RIGHT OF WAY.
 - ACCESS TO ALL UNITS FROM INTERNAL ROAD SYSTEM ONLY. ROADWAYS TO BE PRIVATE RIGHT-OF-WAYS. DESIGN SPEED LIMIT FOR SUBDIVISION IS 20 MPH. DETENTION ACCESS TO BE FROM NATHAN SPRINGS WAY.
 - A UTILITY AND DRAINAGE EASEMENT TO BE PLATTED TEN (10) FEET IN WIDTH INSIDE ALL EXTERIOR LOT LINES ADJOINING STREETS AND PRIVATE RIGHTS-OF-WAY. A UTILITY AND DRAINAGE EASEMENT TO BE PLATTED FIVE (5) FEET IN WIDTH ALONG ALL OTHER EXTERIOR LOT LINES AND ALONG BOTH SIDES OF ALL INTERIOR LOT LINES, EXCEPT FOR ZERO LOT LINES FOR ATTACHED UNITS.
 - LOCATION OF MAILBOXES TO BE COORDINATED WITH THE U.S. POSTAL SERVICE.
 - BASED ON GEOTECHNICAL INVESTIGATION, THE DEPRESSION AREA LOCATED ON LOTS 8 & 9 IS NOT A KARST FEATURE.
 - STANDARD DRAINAGE AND UTILITY EASEMENT TO BE CLOSED IN THE AREA OF DETENTION POND.
 - 1) EXCAVATE PERMANENT STORMWATER DETENTION PONDS IN ADVANCE OF CONSTRUCTION, AND USE AS SEDIMENT BASINS DURING CONSTRUCTION. REMOVE ACCUMULATED SEDIMENT AND INSTALL PERMANENT OUTLET STRUCTURES WHEN THE UPSTREAM DRAINAGE AREAS ARE STABILIZED.
 - LOCATIONS OF UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES NOT SHOWN. PRIOR TO ANY EXCAVATION, THE OWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY AUTHORITIES FOR EXACT LOCATIONS AND DEPTHS.
 - A 15' SANITARY SEWER EASEMENT EXISTS ALONG SANITARY SEWER LINE, 7.5' EACH SIDE AS INSTALLED.
 - THE OWNER IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF CONSTRUCTION SITE POLLUTION PREVENTION CONTROLS THROUGHOUT THE LIFE OF THE PROJECT.
 - LANDSCAPING SHALL COMPLY WITH ALL ASPECTS OF THE CITY OF KNOXVILLE TREE PROTECTION ORDINANCE.
 - SIGHT DISTANCE HAS BEEN EVALUATED AND DESIGNED PER AASHTO STANDARDS.
 - PAVEMENT STRIPING TO COMPLY WITH CITY OF KNOXVILLE STANDARD SPECIFICATIONS TS40 & TS41.
 - SIGNAGE TO COMPLY WITH MUTCD AND CITY OF KNOXVILLE STANDARDS.

CLT MAP: 107C GROUP B
PARCELS: 34.01 & 35

PLAT REFERENCE: 202210310026251
17-9

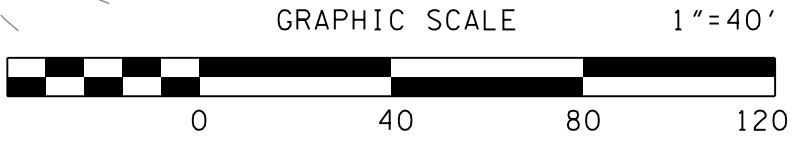
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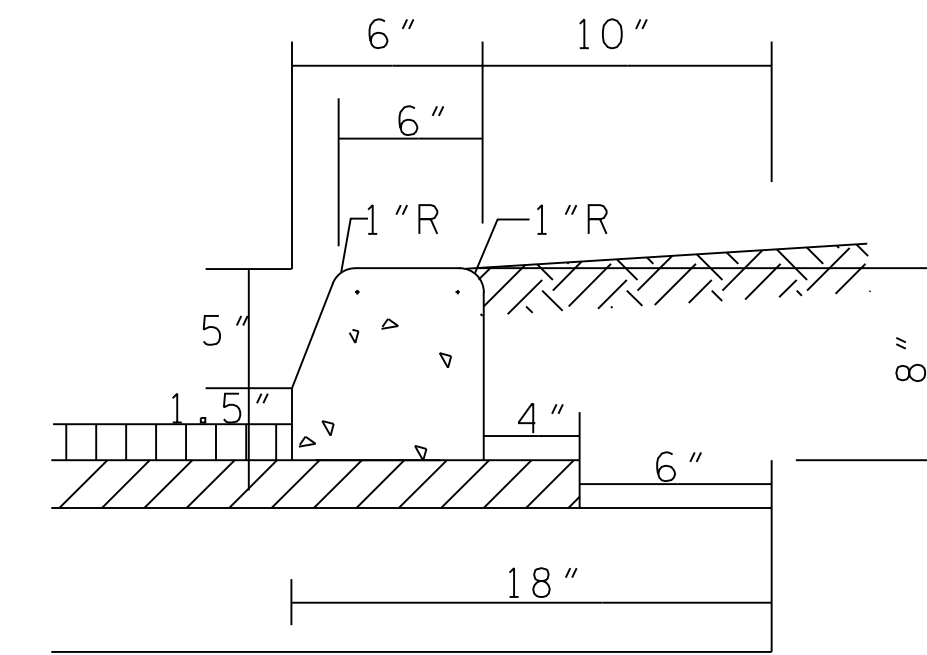
TOTAL AREA: 3.30 ACRES

PRIVATE STREET: 27,120 SQ FT (0.58 AC)

NUMBER OF LOTS: 14
PROPERTY ZONED: RN-2 (PENDING)

PLANNING SERVICES FILE NUMBER: 12-SB-23-C





The diagram illustrates a cross-section of a road construction project. The total width is 40 feet. The road structure consists of three main layers: a 2 1/2 inch asphaltic concrete binder layer, a 1 1/2 inch asphalt surface course, and an 8 inch crushed stone class A grade D base. The binder layer is 6 inches thick, and the asphalt layer is 10 inches thick. The road is flanked by 2:1 MAX slopes on both sides. The road surface is 12 feet wide on each side of the centerline, with a 2% slope. The existing ground is shown on the left and right sides, with a 2:1 MAX slope indicated. The road is 18 feet wide at the base of the binder layer.

FILL SOILS SHALL BE COMPACTED IN LAYERS 8 INCHES OR LESS IN THICKNESS TO A MINIMUM OF 98 PERCENT STANDARD PROCTOR MAXIMUM DRY DENSITY AND WITHIN PLUS OR MINUS 3 PERCENT OPTIMUM MOISTURE CONTENT. NO LESS THAN SIX (6) DENSITY TESTS SHALL BE PERFORMED IN EVERY 10,000 SQUARE FEET OF AREA PER 8 INCH LIFT. (APPROX. 1 TEST PER EVERY 50 SQ. FT.)

