


**Hydrologic Determination Certification
Metro Nashville Stormwater Division**

Map & Parcel: PARCEL# 14900033600
Address: 0 UNA-ANTIOCH PIKE, NASHVILLE, TN
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Owner/ Developer: MR. WILLIAM (BUCK) SNYDER

A hydrologic determination was performed on MARCH 11, 2025 by qualified staff for a conveyance located on the above parcel in accordance with the hydrologic determination guidance developed by TDEC and approved by MWS. Based on the observed geomorphology, hydrology, and biology, the conveyance is a wet weather conveyance (WWC) and not a community water as defined by Section 6.9 of Nashville's Stormwater Management Manual, Volume 1.

HD performed by: Rebecca Miller, RS Miller Group LLC and
Name & Firm: Brandon Garrett, C&T Engineering, QHP

Signatures: Rebecca Miller


Signature and stamp of Professional Engineer designing the project.

Attachments:

Hydrologic Determination Field Sheet

Attachment A: Map

Attachment B: Photos of beginning, middle, and end of WWC

****MWS reserves the right to verify any hydrologic determination, especially those performed during drier months.****

This document should be submitted with the Grading Permit application for all conveyances that will not be protected.

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Pollution Control

Assessor : Rebecca Miller (RSMG) and Brandon Garrett (C&T) QHP Date / Time : 3/11/2025

Waterbody : NA HUC : MILL CREEK
UPPER-051302020101

Location / Site Name : 0 UNA-ANTIOCH PIKE-NASHVILLE TN

County : Davidson Lat/Long 1 : 36.060772/-86.666335 Lat/Long 2 : 36.06116/-86.667439

Previous Rainfall (7-day) : 0.51 INCHES USGS Quad : NASHVILLE EAST

Seasonal Precip vs. Norm : very wet wet X average dry drought unknown

Photos Taken ? / Number : Others Present : None

FIELD INDICATORS OBSERVED

	Absent	Weak	Moderate	Strong	N/A
GEOMORPHOLOGY					
1) Channel has well-defined bed and bank		X			
2) Channel is sinuous		X			
3) Presence of hydraulic diversity (riffle - pool sequence)		X			
4) Hydric soils present in streambed or sides of channel	X				
5) Presence of floodplain or bankful bench	X				
6) Channel is 2 nd order or greater	X				
7) Gravel / Cobble substrate in channel bed		X			
8) Historic land uses have altered natural channel morphology (e.g. channelization / livestock access)	X				
HYDROLOGY					
1) Non-storm flow present ?	X				
2) Storm-related flow present ?	X				
3) Obvious groundwater connections (seeps, springs, etc)	X				
4) Subsurface / interstitial flow in substrate detected	X				
5) Channel has associated / adjacent wetlands	X				
6) Presence of last fall's leaf litter in channel	X				
7) Historic land uses have altered natural hydrology (e.g. french drains / livestock activities)	X				
BIOLOGY					
1) Presence of Fish	X				
2) Presence of Crustaceans (crayfish, scuds, isopods)		X			
3) Presence of EPT (mayflies, caddisflies, stoneflies)	X				
4) Other Inverts (odonates, pennies, tipulids, midges, etc)	X				
5) Presence of Mollusca (Snails, clams)	X				
6) Indicators of aquatic inverts (caddis cases or nets, larval skins, midge tubes, etc)	X				
7) Periphyton present on substrate	X				
8) Filamentous algae present in channel	X				
9) Instream root wads / oxidized root channels	X				
10) Hydrophytic vegetation present in channel	X				
11) Rooted, non-aquatic plants present in streambed	X				

Overall Hydrologic Determination = Wet Weather Conveyance

Justification / Comments :

See Page 2.

Comments (cont.)

CHANNEL WAS DRY DURING THE ASSESSMENT. POOLED WATER WAS OBSERVED IN ONE LOCATION. ONE ISOPOD LOCATED IN POOLS. NO HYDRIC SOILS OBSERVED ALTHOUGH SOILS WERE SATURATED IN SOME LOCATIONS. UPLAND VEGETATION WAS OBSERVED IN CHANNEL IN SOME LOCATIONS (TALL FESCUE, CHINESE PRIVET) WHILE FACW VEGETATION WAS OBSERVED IN CHANNEL IN ONE LOCATION (SYCAMORE FOUND IN CHANNEL APPROXIMATELY CENTER OF CHANNEL REACH ASSESSED). CHANNEL SUBSTRATE SORTING WAS VERY WEAK CHANNEL WAS BEDROCK IN MOST LOCATIONS WITH EXCEPTION TO UPPER PORTION OF CHANNEL.

SITE SKETCH

SEE FIGURES AND PHOTOS IN THE
ATTACHMENTS.

Hydrologic Determination Guidance Key Tennessee Division of Water Pollution Control

<u>STEP</u>	<u>GO TO STEP</u>
1. Does the hydrologic feature exist solely due to a process discharge ?	Yes ... go to END1 X <u>No</u> go to 2
2. Is the hydrologic feature defined by a linear channel or channels?	X <u>Yes</u> ... go to 6 No go to 3
3. Does the hydrologic feature exhibit enough of the COE-defined wetland characteristics (e.g. hydric soils, hydrophytic vegetation, hydrology) to likely qualify as a jurisdictional wetland ?	Yes ... go to END2 No go to 4 Not Applicable
4. Is the hydrologic feature a “pond” (open water lentic habitat) ?	Yes ... go to 5 X <u>No</u> go to 6
5. Is there a well-defined watercourse leading into or out of the pond ?	Yes ... go to 6 Not Applicable. No go to END3
6. Does the watercourse presently have flow ?	Yes ... go to 8 X <u>No</u> go to 7
7. When watercourse has flow, does it flow continuously for more than 30 days during a normal hydrologic year ?	Yes ... go to END4 No go to END1 X <u>Uncertain</u> ... go to 10
8. Has there been precipitation runoff in the local watershed in the past 5 days ?	<u>Yes</u> ... go to 9 X <u>No</u> go to END4 Uncertain ... go to 9
9. Are aquatic biota indicative of extended periods of flow present ?	Yes ... go to END4 X <u>No</u> go to 10
10. Do observed field characteristics / features* indicate that it is more likely than not that the watercourse flows or supports fish & aquatic life for extended periods of time during a normal hydrologic year ?	Yes ... go to END4 X <u>No</u> go to END1

Document your observations & rationale

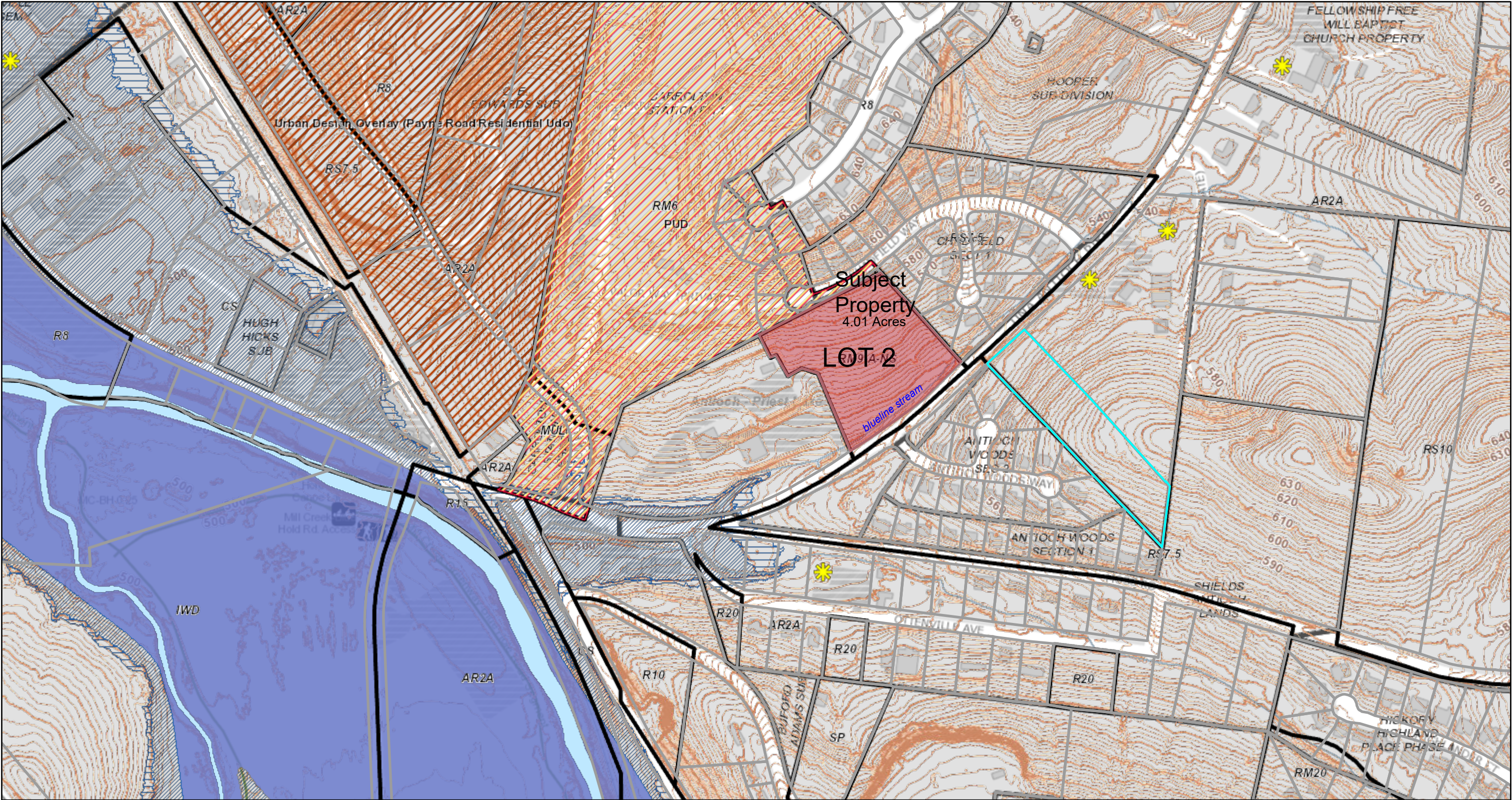
* note - see *Hydrologic Field Data Sheet* for field indicators

- x END1 : Watercourse is a **Wet Weather Conveyance**. Alterations are covered under the *General Aquatic Resource Alteration Permit (ARAP) for Wet Weather Conveyances*. In-channel water quality and quantity control structures are usually permissible.
- END2 : Hydrologic feature may be a **Wetland**. The feature should be delineated by a qualified wetland expert using USCOE methodology. Alteration may require an individual or general ARAP, depending on size and connectivity of wetland.
- END3 : Hydrologic feature is an **Isolated Pond**. If completely contained on private property, alterations do not require an ARAP. However, discharges resulting from alterations of ponds, including draining, may require NPDES permit coverage.
- END4 : Watercourse is a jurisdictional **Stream**. Physical alteration requires either an individual or general ARAP, depending on the nature and scale of alteration. Buffer regulations in the *Construction Stormwater General Permit* may apply. In-channel water quality and quantity control structures are generally not permissible.

TDEC / WPC
December 12, 2006

ATTACHMENT - A
SITE MAP

FIGURE 1 - Nashville / Davidson County Parcel Viewer



March 7, 2025

1:4,514

0 0.04 0.09 0.18 mi

0 0.05 0.1 0.2 km

FEMA, Nashville Maps, NRCS Davidson County Soil Survey, Metro Water Services, Metro GIS

Made by: Metro GIS

Override 1

graphicsLayer2

Zoning

Urban Design Overlay

Planned Unit Development

Lakes, Ponds and Other Water Bodies

Streams and Rivers

Levees

Dams

Stormwater Control Measure

Problem Soils

BODINE-SULPHURA COMPLEX, 20 TO 50 PERCENT SLOPES

DELLROSE CHERTY SILT LOAM, 12 TO 20 PERCENT SLOPES

DELLROSE CHERTY SILT LOAM, 20 TO 40 PERCENT SLOPES

NEWARK SILT LOAM

TAFT SILT LOAM

Park Boundaries

Parks and Recreation Areas

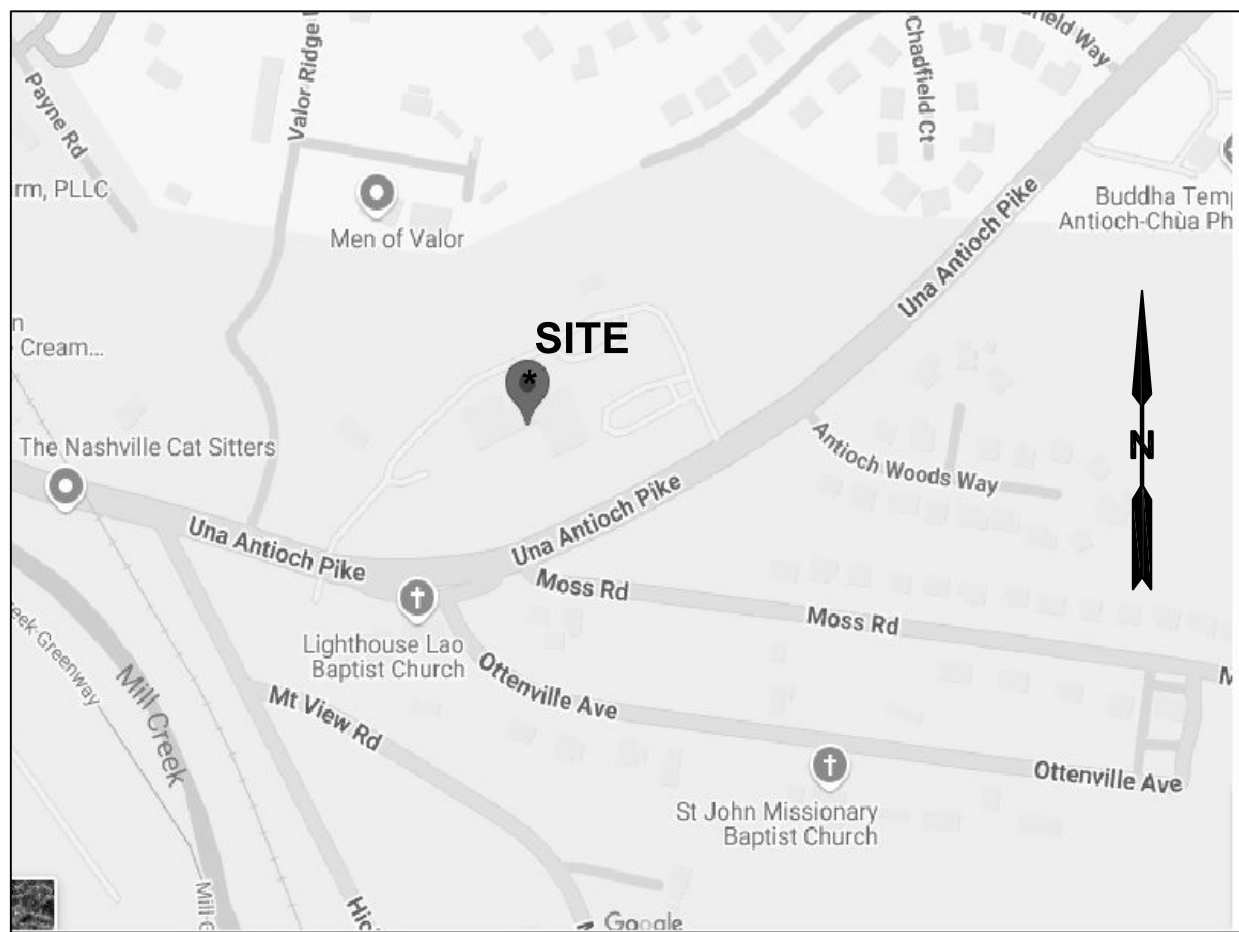
Redevelopment District

<all other values>

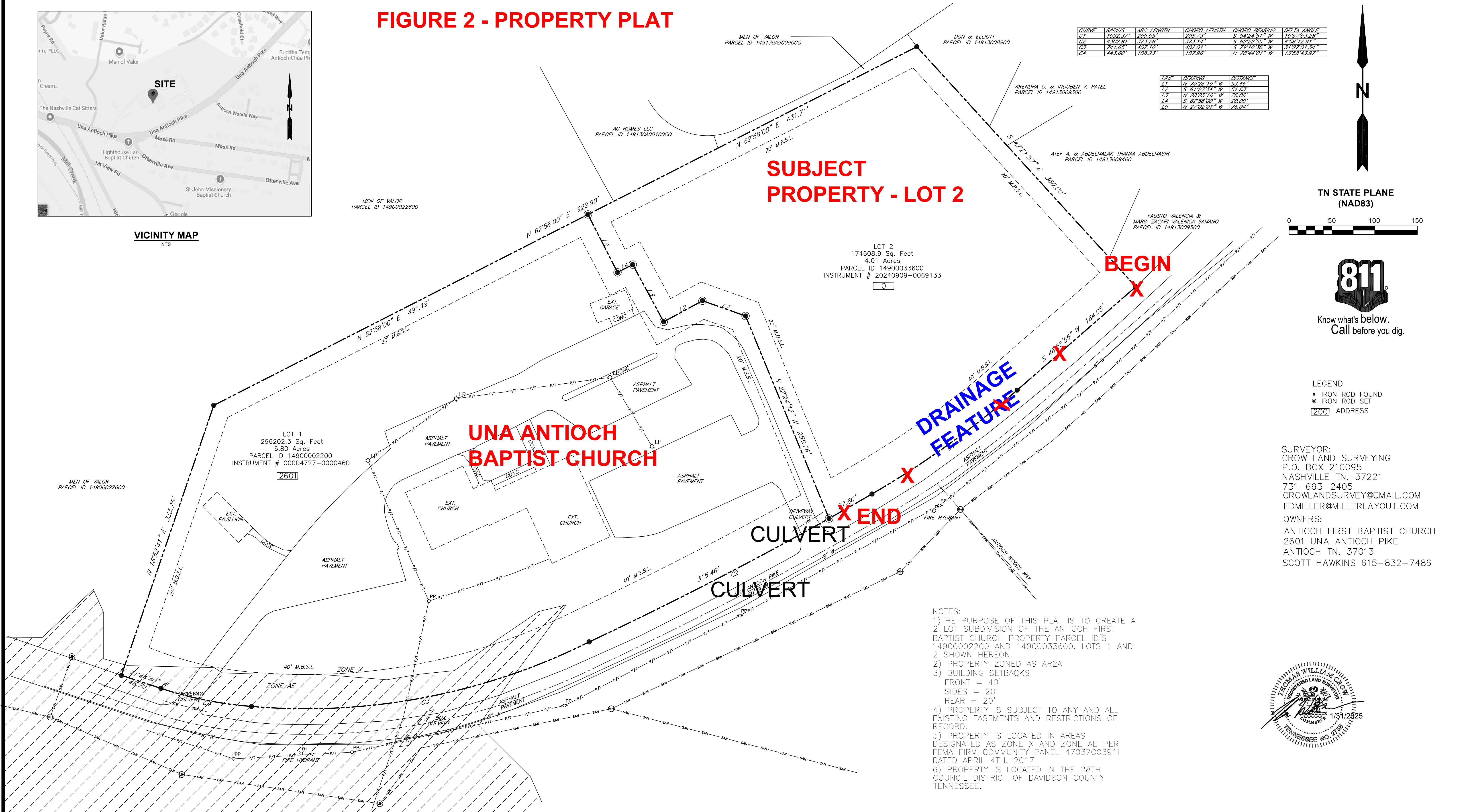
2601 UNA ANTIOCH PIKE

NASHVILLE, TN

FIGURE 2 - PROPERTY PLAT



VICINITY MAP
NTS



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1082.37'	208.05'	208.73'	S 34°24'51\"	103°57'53.78\"
C2	4302.21'	371.99'	371.14'	S 62°58'25\"	4°58'15.91\"
C3	741.65'	407.10'	402.01'	S 79°10'36\"	31°27'01.54\"
C4	443.60'	108.23'	107.96'	N 78°44'01\"	13°58'43.97\"

LINE	BEARING	DISTANCE
L1	N 70°29'19\"	53.46'
L2	S 61°22'54\"	51.63'
L3	N 28°23'16\"	76.06'
L4	S 62°58'00\"	20.00'
L5	N 27°02'01\"	76.04'



TN STATE PLANE
(NAD83)



- LEGEND
- IRON ROD FOUND
 - IRON ROD SET
 - [200] ADDRESS

SURVEYOR:
CROW LAND SURVEYING
P.O. BOX 210095
NASHVILLE TN. 37221
731-693-2405
CROWLANDSURVEY@GMAIL.COM
EDMILLER@MILLERLAYOUT.COM

OWNERS:
ANTIOCH FIRST BAPTIST CHURCH
2601 UNA ANTIOCH PIKE
ANTIOCH TN. 37013
SCOTT HAWKINS 615-832-7486



- NOTES:
- 1) THE PURPOSE OF THIS PLAT IS TO CREATE A 2 LOT SUBDIVISION OF THE ANTIOCH FIRST BAPTIST CHURCH PROPERTY PARCEL ID'S 14900002200 AND 14900033600. LOTS 1 AND 2 SHOWN HEREON.
 - 2) PROPERTY ZONED AS AR2A
 - 3) BUILDING SETBACKS
FRONT = 40'
SIDES = 20'
REAR = 20'
 - 4) PROPERTY IS SUBJECT TO ANY AND ALL EXISTING EASEMENTS AND RESTRICTIONS OF RECORD.
 - 5) PROPERTY IS LOCATED IN AREAS DESIGNATED AS ZONE X AND ZONE AE PER FEMA FIRM COMMUNITY PANEL 47037C0391H DATED APRIL 4TH, 2017
 - 6) PROPERTY IS LOCATED IN THE 28TH COUNCIL DISTRICT OF DAVIDSON COUNTY TENNESSEE.

CERTIFICATE OF OWNERSHIP & DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCE IN BOOK NUMBER 00004727-0000460 AND 202440909-00069133 COUNTY REGISTER'S OFFICE OF DAVIDSON COUNTY, TENNESSEE, AND THAT I (WE) HERBY ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) FREE CONSENT, AND THAT THIS PLAT CONSTITUTES OFFERS OF IRREVOCABLE DEDICATION FOR ALL PUBLIC ROADS, UTILITIES, AND OTHER FACILITIES SHOWN HEREON AS REQUIRED BY THE SUBDIVISION REGULATIONS OF THE PLANNING COMMISSION OF METROPOLITAN NASHVILLE, DAVIDSON COUNTY.

(DATE) OWNER 20 _____

TITLE (IF ACTION FOR PARTNERSHIP OR CORPORATION)

OWNER'S CERTIFICATE

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCE IN BOOK NUMBER 00004727-0000460 AND 202440909-00069133 COUNTY REGISTER'S OFFICE OF DAVIDSON COUNTY, TENNESSEE, AND ADOPT THE PLAN OF SUBDIVISION OF THE PROPERTY AS SHOWN HEREON AND DEDICATE ALL PUBLIC WAYS AND EASEMENTS AS NOTED. NO LOT OR LOTS AS SHOWN HEREON SHALL AGAIN BE SUBDIVIDED, RESUBDIVIDED, ALTERED OR CHANGED SO AS TO PRODUCE LESS AREA THAN HEREBY ESTABLISHED UNTIL OTHERWISE APPROVED BY THE METROPOLITAN PLANNING COMMISSION AND UNDER NO CONDITION SHALL SUCH LOT OR LOTS BE MADE TO PRODUCE LESS AREA THAN PRESCRIBED BY THE RESTRICTIVE COVENANTS AS OF RECORD IN BOOK _____ PAGE _____ R.O.D.C., TENNESSEE, RUNNING WITH THE TITLE TO THE PROPERTY.

NAME: _____ DATE: _____

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THE HEREON SHOWN SUBDIVISION PLAT REPRESENTS A CLASS 1 SURVEY HAVING AN UNADJUSTED RATIO OF PRECISION OF 1:10,000 AND IS TRUE AND CORRECT. APPROVED MONUMENTS HAVE BEEN PLACED AS INDICATED. ALL SIDE LOT LINES ARE AT RIGHT ANGLES OR RADIAL TO A STREET UNLESS OTHERWISE NOTED.

TENNESSEE REGISTERED SURVEYOR NO. _____
PRINTED NAME _____ THOMAS WILLIAM CROW
SIGNATURE _____ DATE 1/31/2025

COMMISSION APPROVAL

APPROVAL BY THE METROPOLITAN PLANNING COMMISSION OF NASHVILLE AND DAVIDSON, COUNTY, TENNESSEE.

BY: _____

DATE: _____

RECORD

RECORDED _____

IN BOOK _____, PAGE _____

OF THE REGISTERS OFFICE OF DAVIDSON COUNTY, TENNESSEE

PRLIMINARY PLAT OF THE
ANTIOCH FIRST BAPTIST CHURCH SUBDIVISION
CITY OF ANTIOCH
DAVIDSON COUNTY, TENNESSEE

NET AREA: 10.81 Ac +/- TOTAL LOTS: 2
ACRES NEW ROADS N/A COUNCIL DISTRICT 28th
MILES NEW ROADS N/A CLOSURE ERROR 1:15000+/-

OWNERS: ANTIOCH FIRST BAPTIST CHURCH

SURVEYOR: CROW LAND SURVEYING

SCALE: 1"=50'

ATTACHMENT B
SITE PHOTOGRAPHS OF END, MIDDLE, AND
BEGINNING OF DRAINAGE FEATURE



Photograph 1: Upstream view of WWC-1 (N36.060144 W-86.667418)



Photograph 2: Upstream view of WWC-1 (N36.060295 W-86.667139)



Photograph 3: Upstream view of WWC-1 (N36.060790 W-86.666368)



Photograph 4: Downstream view of WWC-1 from Photo 1 location.