STAFF REPORT

To: Planning Board of Adjustment

Agenda Title: Conditional Zoning—Altura Residential Masterplan

Presenter: Ricky Hurley, AICP

Meeting Date: June 3, 2025

Summary:
Conditional zoning review for 77.5 acres located at 36 Goodman Road from Mountain Village (MV) and Residential District R-21 to Mountain Village-Conditional Zone (MV-CZ) for the development of a 394-unit residential development. The subject properties are identified in the Buncombe County tax record as PINs 9731-31-1730, 9730-39-9432, 9731-31-1066, 9731-21-7026, with additional PINS listed in the attached PIN Roster. The applicant is Dan Mason on behalf of the owners Altura Communities, LLC and Stars and Stripes, LLC.

Background/Site Context:
The subject parcels were first recorded between 2007-2009, prior to the town's steep slope development requirements. A subsequent master plan was approved by the Planning and Zoning Board of Adjustment in 2018 and included a mix of 447 single-family and multi-family units. While the masterplan approval has since expired, the single-family and townhome lots remain.

The 77.5 acre proposed development is located approximately 750 feet east of the intersection of Riverside Drive/NC Highway 251 and Goodman Road and is accessed from two separate access points – one off Goodman Road and one via Altura Parkway (an extension of Windwhisper Drive). The properties are currently vacant and covered in woodlands with elevations ranging from 2010' to 2380', gradually rising in elevation from the western side of the property, reaching the highest point at the eastern boundary of the site. The regulated steep slope areas are situated on the eastern side of the project, overlaying most of the existing single-family lots. The rezoning request excludes approximately 5.4 acres, made up of 21 individually owned single-family lots and 20 townhouse lots. These lots are located throughout the project area but are owned by others not associated with the proposed development. Two of the parcels have been developed with single-family homes not associated with the previous or current masterplan.

Project Proposal/Staff Analysis:

The proposed development offers a variety of housing types, including 78 detached single-family homes, 91 attached single-family homes (townhomes), and 225 apartment units, for a total of 394 units. The current applicant/developer controls 188 of the original 230 parcels and is proposing to decrease the overall density by 12 lots by either recombining or designating the lots as open space. As the previous development resulted in the recording of several plats with Buncombe County Register of Deeds, creating the 224 residential homes sites, the property owner could choose to move forward with construction of individual homes once utilities are established within the project area, regardless of the outcome of rezoning request. Reorganization of lots is permitted if no additional lots or non-conforming dimensional standards, such as reductions in area or access, are created as part of the recombination subdivision process.

The applicant proposes the construction of three private access roads along the eastern property boundary from identified as “Drive A, B, and C” for the purpose of uphill access to the lots. The 16-foot-wide access roads will be located within a 20-foot access easement and designed with pull-offs. The applicant is requesting a modification to the steep slope limits for land disturbance and impervious surface in these areas, offering to reduce the total number of lots within the steep slope zone by 16 parcels to offset the additional land disturbance and impervious surface needed for the construction of the access roads.

The zoning classifications for surrounding properties include R-21 Residential District to the east, Mountain Village zoning to the north, south, and west, and a small area of R-10 Residential District to the southwest across Goodman Road. Land uses in the area include the previously approved Charter Mountain subdivision development to the west, scattered residential homes, and the Metropolitan Sewerage District’s wastewater treatment facility to the south. To the east, there are several residential subdivisions, including North Ridge Estates, Town & Country Estates, and Running Ridge, as well as vacant properties to the north.

The site is accessible via two publicly maintained roads: Goodman Road from the west and Windwhisper Drive from the southeast. Additionally, there is one planned stub street to facilitate a future connection with Charter Mountain development. The subdivision streets are planned to be a combination of public and privately maintained.

The area is currently served by Woodfin Water, Asheville Water Department, and MSD sewer services. The applicant has indicated that the sewer and water lines were installed during previous development efforts but will require inspection, testing, and final connection to the respective utility systems. A significant portion of the project's roadway system serving the single-family lots has already been constructed, although additional paving is required. The project will need to submit a detailed stormwater plan, including calculations, to ensure compliance with the Town's Stormwater ordinance. A separate application for an erosion control permit must also be submitted to Buncombe County.

The developer is providing 31.3 acres of open space scattered throughout the project with a mix of trails, sidewalks, and side paths within the development for exclusive use by residents, except for a

sidewalk and bicycle climbing lane from the Goodman Road entrance that will continue along Altura Parkway. The site plan reflects a staff requested connection of the public pedestrian facility from Charter Mountain development to this project.

Updates & Additional Materials

Since the May 6th meeting, staff researched the key concerns mentioned during the May 3, 2025, meeting. In response to the height concern and ladder truck access, Kevin Tipton, Fire Marshal with Buncombe County, noted that before their office would release a building permit, a design professional must submit stamped plans showing adequate water for both domestic and fire flows, as well as sufficient road widths for access. He also stated that although Woodfin FD does not have a ladder truck they use Weaverville and West Buncombe for response.

Staff also reviewed the utility sheet provided as part of the preliminary subdivision review for the previously approved Charter Mountain development, which is located immediately west of the project under consideration. The sewer extension reflects a proposed 8-inch gravity sewer extension into the southwestern corner of the Altura project, which then will connect to another extension in Goodman Road. Charter Mountain is accessing City of Asheville water service from Riverside Drive with an 8-inch line terminating at Altura's western property line, thereby providing an opportunity to create a loop in the system once connected to Altura's existing connection along Windwhisper Drive.

I spoke to Taylor Osborne with VanWinkle Law Firm via phone on Monday, May 19th who verbally relayed that the applicant and their client were mutually working towards a resolution for the access easement to the 17-acre parcel owned by Litchfield Capital LLC, located immediately north of the proposed project. At this time, they were satisfied with progress to date and no longer objecting to the rezoning application.

The applicant has added a new Condition #12 that provides for least 10% of the units within the multi-family portion of the project will be affordable to households earning up to 80% of the area median income (AMI). They have modified Condition #27 to reduce the validity of the conditional zoning from five to three years in response to Board concerns.

The project is requesting several development modifications, including:

- Sidewalks to be required only along new road infrastructure related to the multi-family and townhome phases. Use of a trail network elsewhere within the development is proposed in lieu of sidewalk.
- Use of LED fixtures for streetlights and will be dark sky compliant.
- An allowance of 2.22 acres of land disturbance and 1.19 acres impervious surfaces within the steep slope zone to allow installation of three access drives identified as Drives A, B, & C, located along the uphill/eastern project boundary. Such an allocation will not utilize any individual lot's allowance for land disturbance or impervious surfaces. The developer will designate 16 lots identified on the Disturbance & Impervious plan as Open Space to offset the requested disturbance and impervious surface.
- A maximum height limit of 5 stories/60 feet and not to exceed 12 feet per occupiable story.

- To extend the validity of the conditional zoning for up to three years and require the first building permit to be obtained within 24 months after the technical plans have been approved.

Staff Recommendation:

Staff supports approval of the proposed conditional zoning of the subject property to Mountain Village-Conditional Zone (MV-CZ) subject to the conditions identified in the Exhibit D – Project Conditions; however, the Board may recommend additional conditions to mitigate the anticipated impacts.

Suggested Motion:

I move to approve the conditional zoning of 77.5 acres as shown on Exhibits A, B, & C from Mountain Village and Residential District R-21 to Mountain Village Conditional Zone, subject to the conditions identified in the Exhibit D - Project Conditions and subject to the following additional conditions:

1) (*Board to add conditions here, if applicable.)*
2) ….

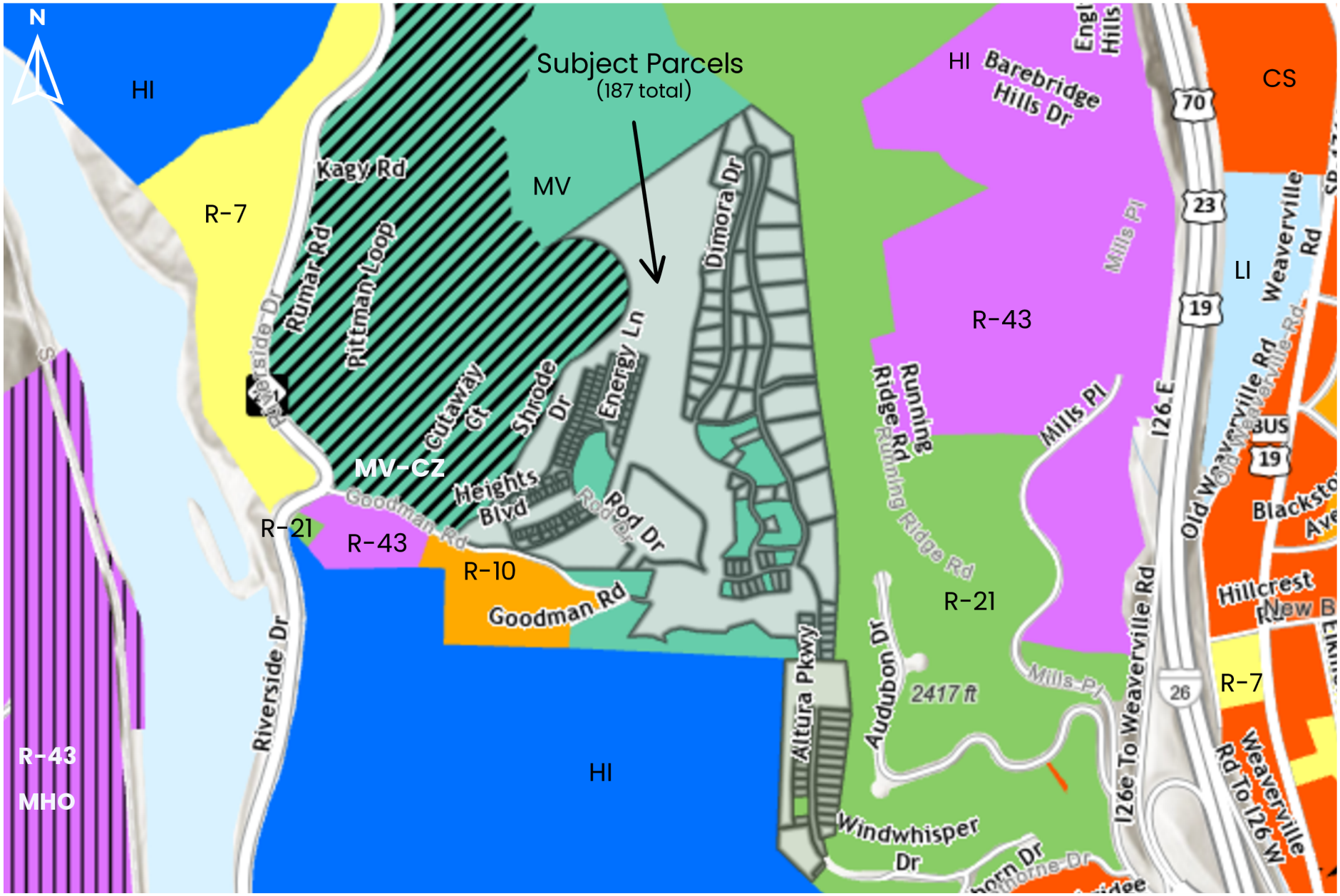
and find that the request is reasonable, is in the public interest, is consistent with the Woodfin Together Comprehensive Plan, and meets the development needs of the community in that the request:

1. Uses the Future Land Use Map to guide development decisions and connect existing and future activity centers with multimodal transportation for all users. (1.1.1 & 1.1.3)
2. Promotes an integrated mix of housing types and affordability options while connecting existing and future activity centers with well-designed multimodal transportation connections. (1.1.2 & 1.1.3)
3. Extends or improves infrastructure needed to support residents and sustainable growth while promoting long-term fiscal responsibility by growth in areas with existing services. (1.1.8 & 1.2.6)
4. Protects environmentally sensitive areas such as floodplains, wetlands, and areas adjacent to streams and creeks while also encouraging accessibility to green spaces. (5.1.1 & 5.1.2)

Attachments:

(1) Exhibit A – Zoning Map
(2) Exhibit B – Future Land Use Map
(3) Exhibit C – Aerial
(4) Exhibit D – Proposed Project Conditions
(5) Exhibit E – Master Plan
(6) View Corridors
(7) Stream Delineation Survey
(8) Traffic Impact Analysis
(9) TIA Scope Review
(10) TIA NCDOT Response
(11) PIN Roster
(12) Disturbance & Impervious Plan
(13) Technical Review Report
(14) Draft Planning Board Recommendation

Exhibit A - Woodfin Zoning Map

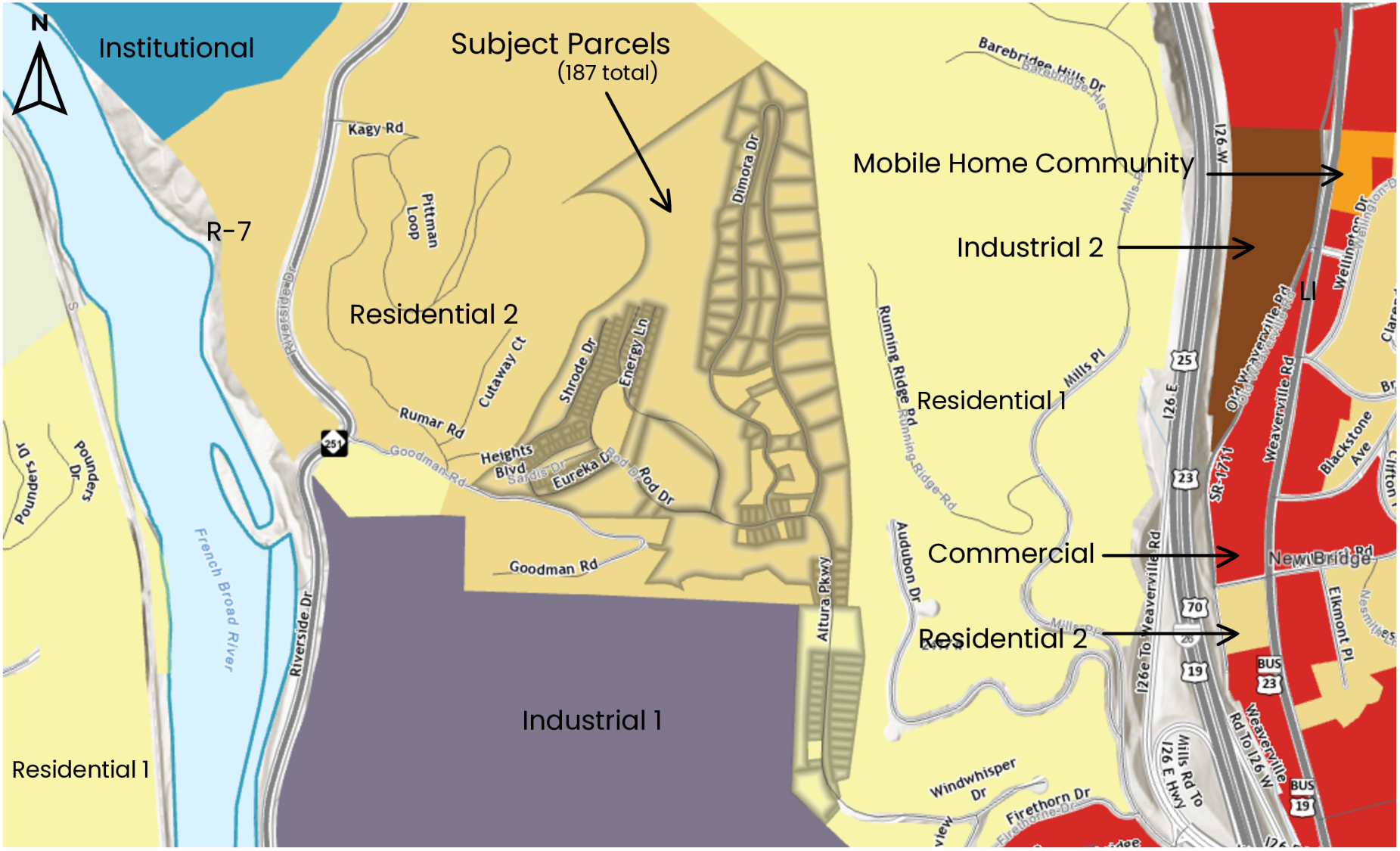


Woodfin Zoning 2025

- MV - Mountain Village
- HI - Heavy Industrial
- LI - Light Industrial
- R-43
- MVCZ - Mountain Village Conditional Zone
- R43 with Manufactured Housing Overlay
- CS - Community Shopping
- R-10
- R-7

Sources: Esri, TomTom, Garmin, FAO, NOAA SGS, (c) OpenStreetMap contributors, and the GIS User Community, North Carolina Department of Information Technology - Transportation, GIS Unit, Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community.

Exhibit B - Future Land Use Map



Woodfin Future Land Use Map

- Residential 1
- Residential 2
- Industrial 1
- Industrial 2
- Commercial
- Institutional
- Mobile Home Community

Sources: Esri, TomTom, Garmin, FAO, NOAA SGS, (c) OpenStreetMap contributors, and the GIS User Community, North Carolina Department of Information Technology - Transportation, GIS Unit, Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community.

Exhibit C - Aerial Map



Sources: NC CGIA, Mazar, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, North Carolina Department of Technology - Transportation, GIS Unit

EXHIBIT D - PROJECT CONDITIONS

Altura - Conditional Zoning

1. The property included in the rezoning is shown on the proposed conceptual plan and is identified in the Buncombe County tax record as PINs 9731-31-1730, 9730-39-9432, 9731-31-1066, 9731-21-7026, with additional PINS listed in the PIN Roster and is 77.5 acres.
2. Pursuant to this ordinance, the entire subject property is rezoned to Mountain Village-Conditional Zone (MV-CZ), but approval is limited to the proposed project ("Project") described herein.
3. The Project will include a maximum of 394 units consisting of 78 single-family home lots, 91 townhouse lots, and 225 multi-family units along with proposed subdivision infrastructure including road, sewer, water, and utilities as shown on the proposed conceptual plan.
4. Open space and off-road trails are included in the development as community amenities and shall be maintained by the homeowner association.
5. Multiple separate stormwater facilities are proposed and shall be maintained by the homeowner association or apartment owner.
6. Separate zoning compliance permits shall be required for homes to be constructed on the individual home sites with the only restriction being that all individual applications must comply with the applicable provision contained in this Ordinance.
7. Setbacks for the lots will be 10 feet front from edge of pavement, 0 feet rear, 5 feet side, and 25 feet when abutting exterior project boundary.
8. A minimum of 25 acres of open space shall be provided, as shown on the approved site plan. No land disturbance or tree removal shall be permitted in these areas other than what is necessary to maintain trails and park area.
9. No more than 37 acres or 48% of disturbance is proposed and limited to the areas shown on the proposed grading plan.
10. No more than 19.50 acres or 25% of impervious surfaces will be included in the development.
11. The maximum height of all multi-family structures shall not exceed S stories/12 feet per occupiable story, being a cumulative maximum not to exceed 60 vertical feet.
12. At least 10% of the total number of constructed apartments must be designated as affordable housing units. Units that are affordable to households earning up to 80% of the area median income (AMI) meet this requirement.
13. Access into the community shall be from one of two entrances located on Goodman Road and Windwhisper Drive/Altura Parkway.
14. Access to the home sites and multi-family complex shall be approved and permitted via the internal public and private streets, as shown on the proposed site plan.
15. A future road connection to the adjacent project, known as Charter Mountain, shall be included, as shown on the approved site plan.
16. A designated bicycle climbing lane and share the road bicycle routes shall be provided along Altura Parkway connecting Goodman Road and Windwhisper Drive.
17. The pedestrian facilities shall connect to the Charter Mountain trail easement at Goodman Road.
18. Street trees for new road infrastructure are required at a rate of 1 large maturing tree per 40 feet of road frontage, to be verified during a field inspection. Existing trees may satisfy all or part of this requirement, specifically for existing road and single-family development.
19. Signage shall be permitted separately and must comply with Chapter 34 of the Town of Woodfin Code of Ordinances.

20. The Project includes the following technical modifications:
    a. Sidewalks are included only along new road infrastructure related to multi-family and townhome phases, as shown on the site plan, including Energy Lane, Altura Parkway and Heights Blvd.
    b. Use of LED lighting for streetlights (will be dark sky compliant).
    c. An allowance of 2.22 acres of land disturbance and 1.19 acres impervious surfaces within the steep slope zone to allow installation of three access drives identified as Drives A, B, & C, located along the uphill/eastern project boundary. Such an allocation will not utilize any individual lot's allowance for land disturbance or impervious surfaces. The developer will designate 16 lots identified on the Disturbance & Impervious plan as Open Space to offset the requested disturbance and impervious surface.
    d. A maximum height limit of 5 stories/60 feet and not to exceed 12 feet per occupiable story.
21. All recommendations from the updated Traffic Impact Analysis (TIA) shall be followed and implemented, as required by NCDOT.
22. The Project will undergo final technical review prior to issuance of any permits.
23. All proposed site lighting must meet the outdoor lighting requirements found in *Section 46-119(c) Street Lights* of the Town of Woodfin Ordinances except as modified by this ordinance. Residential building lighting must be dark sky compliant.
24. The Project will provide a 20-foot easement measured from the edge of pavement along property's Goodman Road frontage for future multi-modal improvements.
25. The site design must substantially comply with the approved preliminary plat and site plans, which are incorporated herein by reference.
26. All applicable required local, state, and federal permits and approvals must be obtained prior to initiation of construction.
27. The conditional zoning will be valid for three years from the date of approval by the Town Council with the first building permit obtained within 24-month period after technical review plans have been approved by all regulatory agencies. Failure to obtain the first building permit within this time frame shall render the plan approval null and void.

Agreed to and accepted this the 29th day of May 2025, by the Property Owner/Applicant:



LOT TYPE

#	SINGLE FAMILY (STEEP SLOPE)	65 UNITS
#	SINGLE FAMILY	13 UNITS
		78 UNITS
	MULTI-FAMILY	225 UNITS
	TOWNHOMES	91 UNITS
	TOTAL UNITS	394 UNITS

STEEP SLOPE AREA (Above 2200' & 20% slope)

OPEN SPACE CALCULATION = 31.31 ACRES

STREET TREE

RECOMMENDED STREET TREE SPECIES

Key		Large Deciduous Trees
AS		Acer saccharum Sugar Maple
BN		Betula nigra River Birch
LT		Liriodendron tulipfera Tulip Tree
PA		Platanus acerifolia London Plane Tree
QP		Quercus phellos Willow Oak

SIDEWALK

TRAILS

DESIGNATED "CLIMBING" BIKE LANE

SIGNED / STRIPED "SHARE THE ROAD" BIKE FACILITY



VICINITY MAP

North

0 60 120 240 360

Scale: 1"=120'

April 30, 2025

North

Altura

Rendered Master Plan

28 Hi Landa Acres
Weaverville, NC 28787
828.545.5989
www.sds-la.com

SITE DESIGN STUDIO

landscape architecture
planning
project management
construction observation

LOT TYPE

#	SINGLE FAMILY (STEEP SLOPE)	65 UNITS
#	SINGLE FAMILY	13 UNITS
		78 UNITS
	MULTI-FAMILY	225 UNITS
	TOWNHOMES	91 UNITS
	TOTAL UNITS	394 UNITS
	OPEN SPACE	31.31 AC

OUTPARCELS

SINGLE FAMILY

ALAM: 7105
BARRY: 4550
BITTON: 7925
BUNCOMBE LAND HOLDINGS: 8553, 8558
CANDIANO: 8936
ISI ENTERPRISES: 7893, 7843, 4668
OSTROW: 6299
SEMMEN FRANCES: 5849, 6919
SKINNER GUY: 6780, 6014, 5191
WILSON: 6504, 4482, 6452, 6315, 7352, 8033

MULTI-FAMILY

BB ENTERPRISES: 8347
MJC HOLDINGS: 7274, 7291, 9304, 8391, 8288, 8275, 8262, 8250
JOHN CUMMINGS: 8471, 8464, 8457, 8550, 8418, 8405, 7493, 7480, 7377, 7364, 7350, 7267



STEEP SLOPE AREA (Above 2200' & 20% slope)

STREET TREE

RECOMMENDED STREET TREE SPECIES

Key		Large Deciduous Trees
AS		Acer saccharum Sugar Maple
BN		Betula nigra River Birch
LT		Liriodendron tulipfera Tulip Tree
PA		Platanus acerifolia London Plane Tree
QP		Quercus phellos Willow Oak

VICINITY MAP

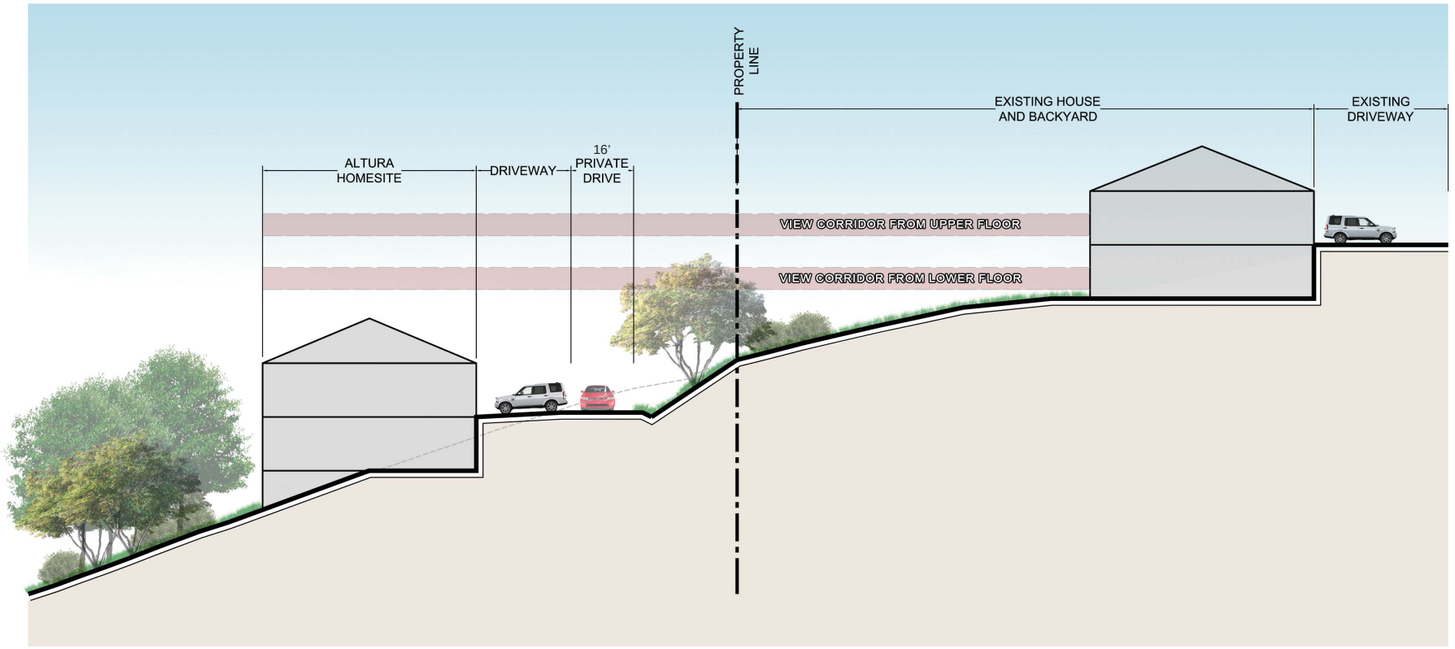
North

0 60 120 240 360
Scale: 1"=120'
April 30, 2025
North

Altura
Rendered Master Plan

28 Hi Landa Acres
Weaverville, NC 28787
828.545.5989
www.sds-la.com
SITE DESIGN STUDIO

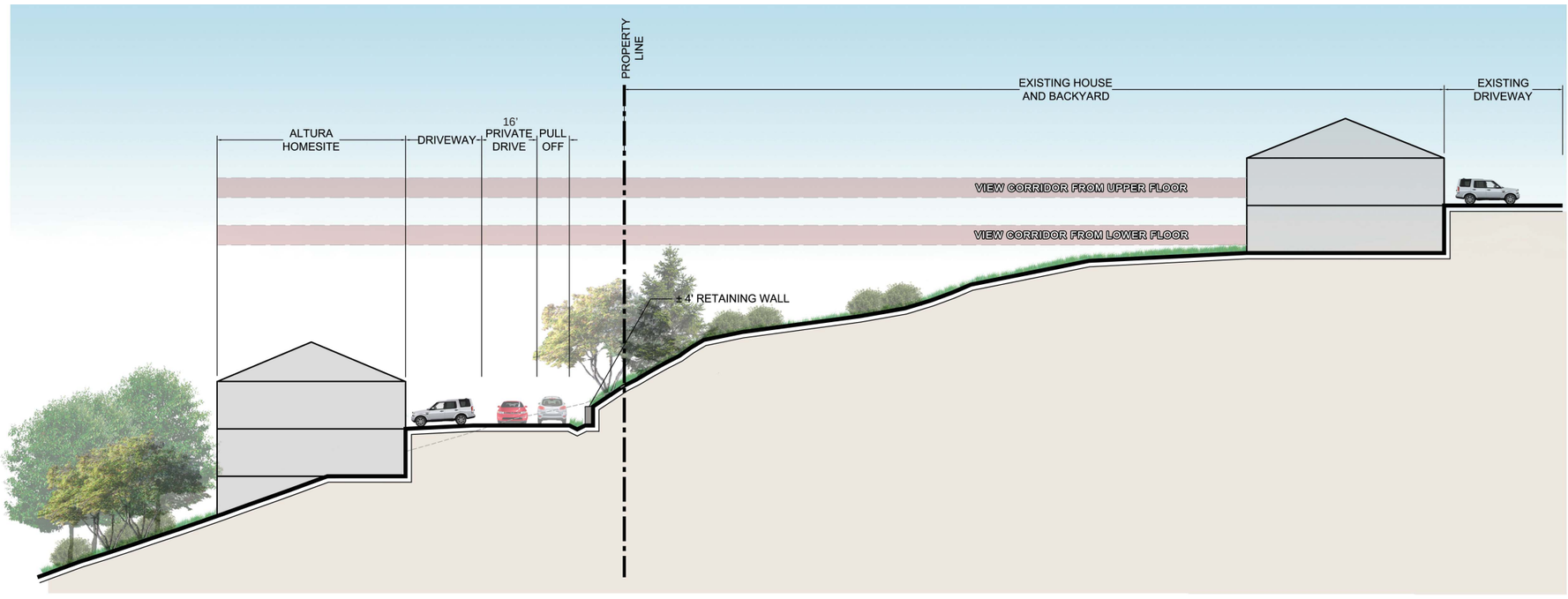
landscape architecture
planning
project management
construction observation





Section 1

Scale: 1/16” = 1’-0”



Section 2

Scale: 1/16” = 1’-0”

Altura

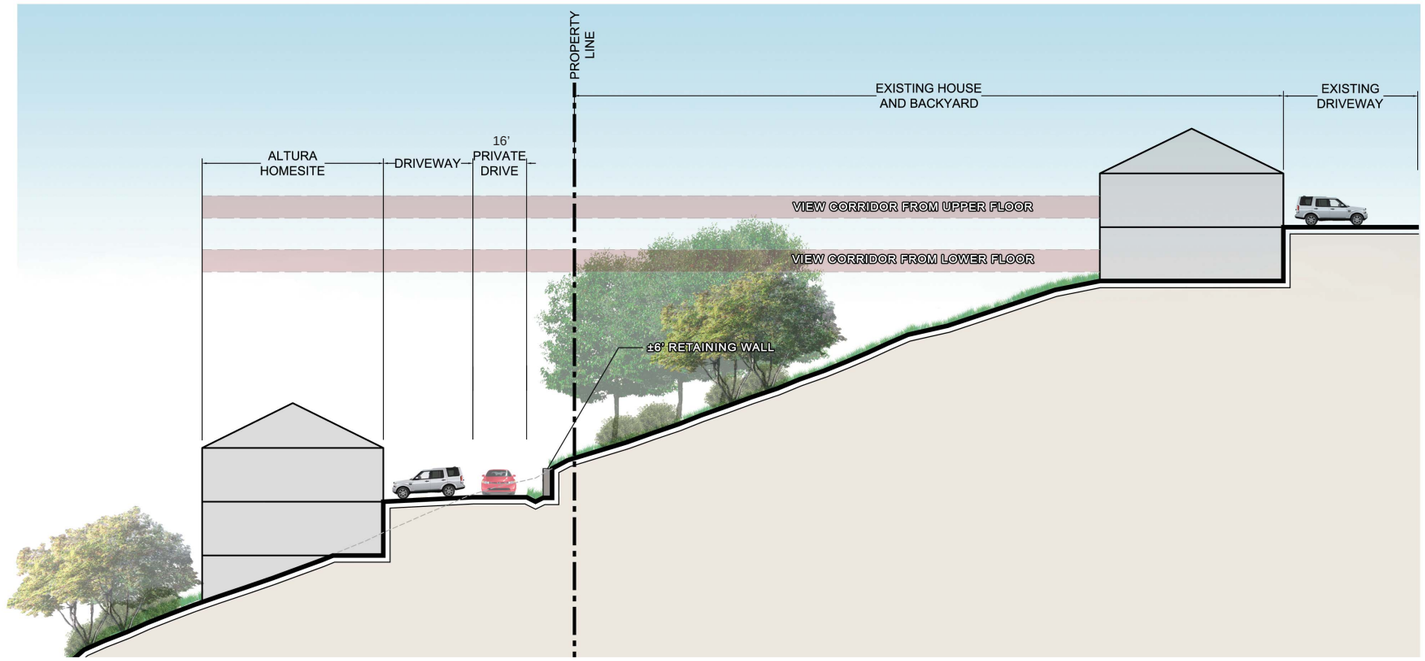
View Corridor Exhibits

April 30, 2025

28 Hi Landa Acres
Weaverville, NC 28787
828.545.5989
www.sds-la.com

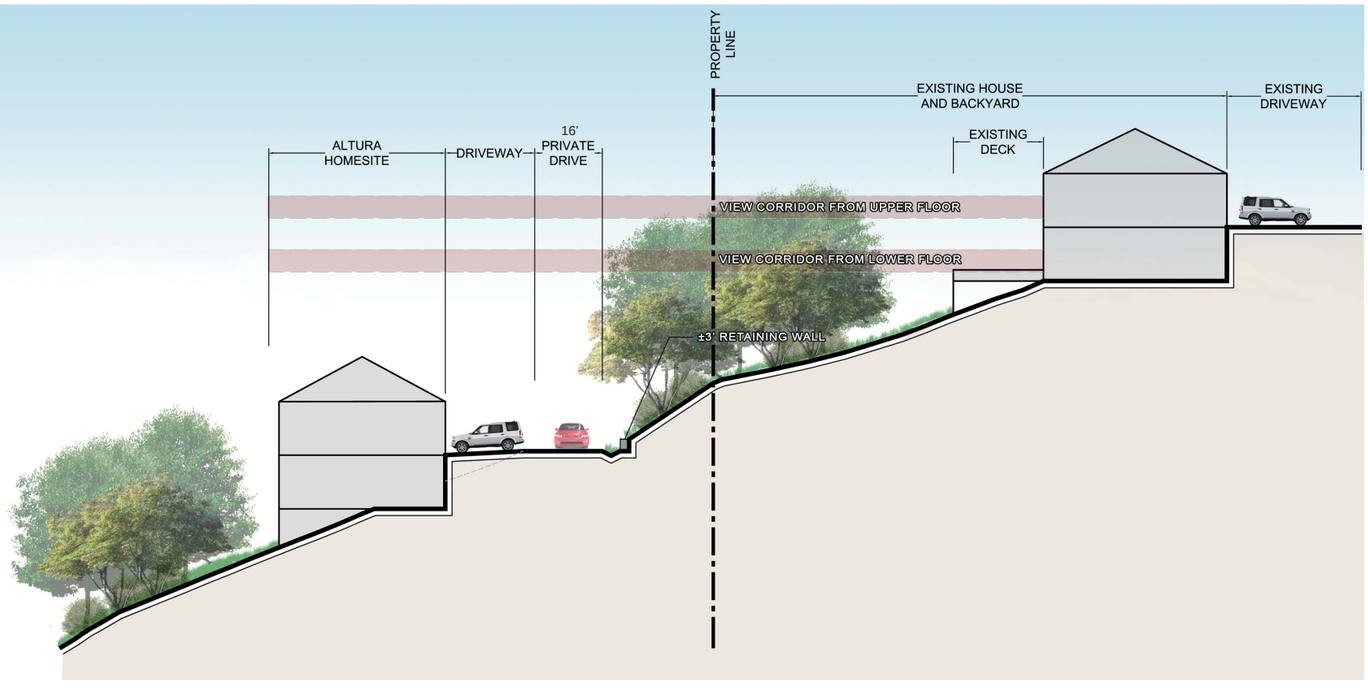
SITE DESIGN STUDIO

landscape architecture
planning
project management
construction observation



Section 3

Scale: 1/16” = 1’-0”



Section 4

Scale: 1/16” = 1’-0”



Altura

View Corridor Exhibits

drapac capital partners

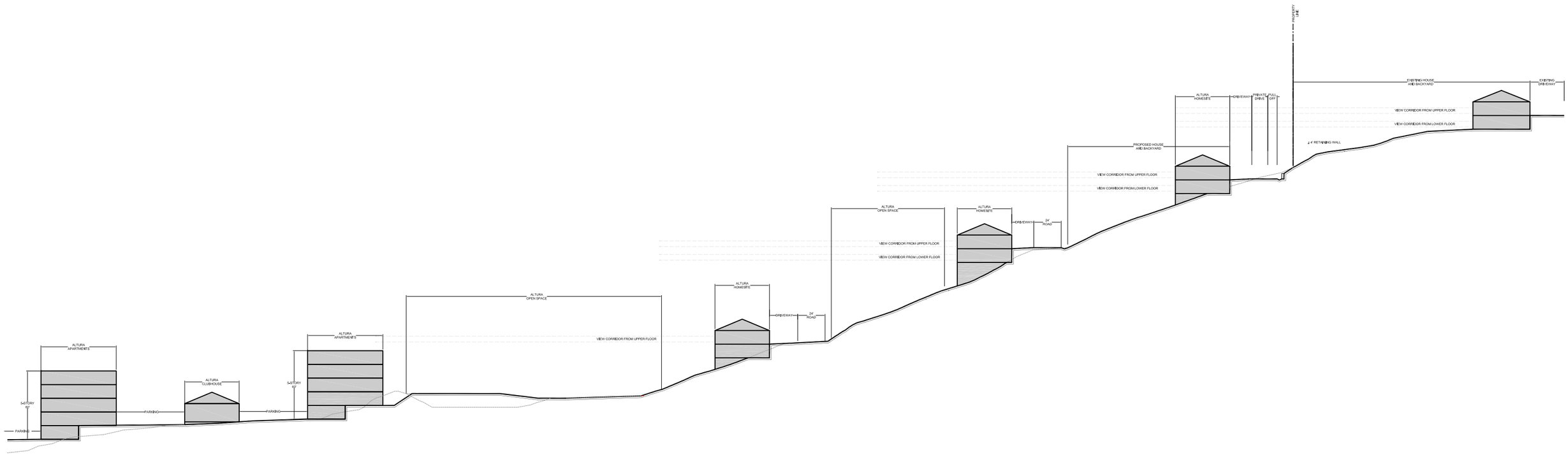
ST. BOURKE ASSET MANAGEMENT

April 30, 2025

28 Hi Landa Acres
Weaverville, NC 28787
828.545.5989
www.sds-la.com

SITE DESIGN STUDIO

landscape architecture
planning
project management
construction observation


ALTURA APARTMENTS
5-STORY W/ PARKING
ALTURA CLUBHOUSE
PARKING
ALTURA APARTMENTS
5-STORY W/ PARKING
ALTURA OPEN SPACE
VIEW CORRIDOR FROM UPPER FLOOR
ALTURA HOMESITE
DRIVEWAY
24' ROAD
ALTURA OPEN SPACE
VIEW CORRIDOR FROM UPPER FLOOR
VIEW CORRIDOR FROM LOWER FLOOR
ALTURA HOMESITE
DRIVEWAY
24' ROAD
PROPOSED HOUSE AND BACKYARD
VIEW CORRIDOR FROM UPPER FLOOR
VIEW CORRIDOR FROM LOWER FLOOR
ALTURA HOMESITE
DRIVEWAY
PRIVATE PULL OFF
PROPERTY LINE
EXISTING HOUSE AND BACKYARD
VIEW CORRIDOR FROM UPPER FLOOR
VIEW CORRIDOR FROM LOWER FLOOR
± 4' RETAINING WALL
EXISTING DRIVEWAY

Altura (+/- 77 AC)

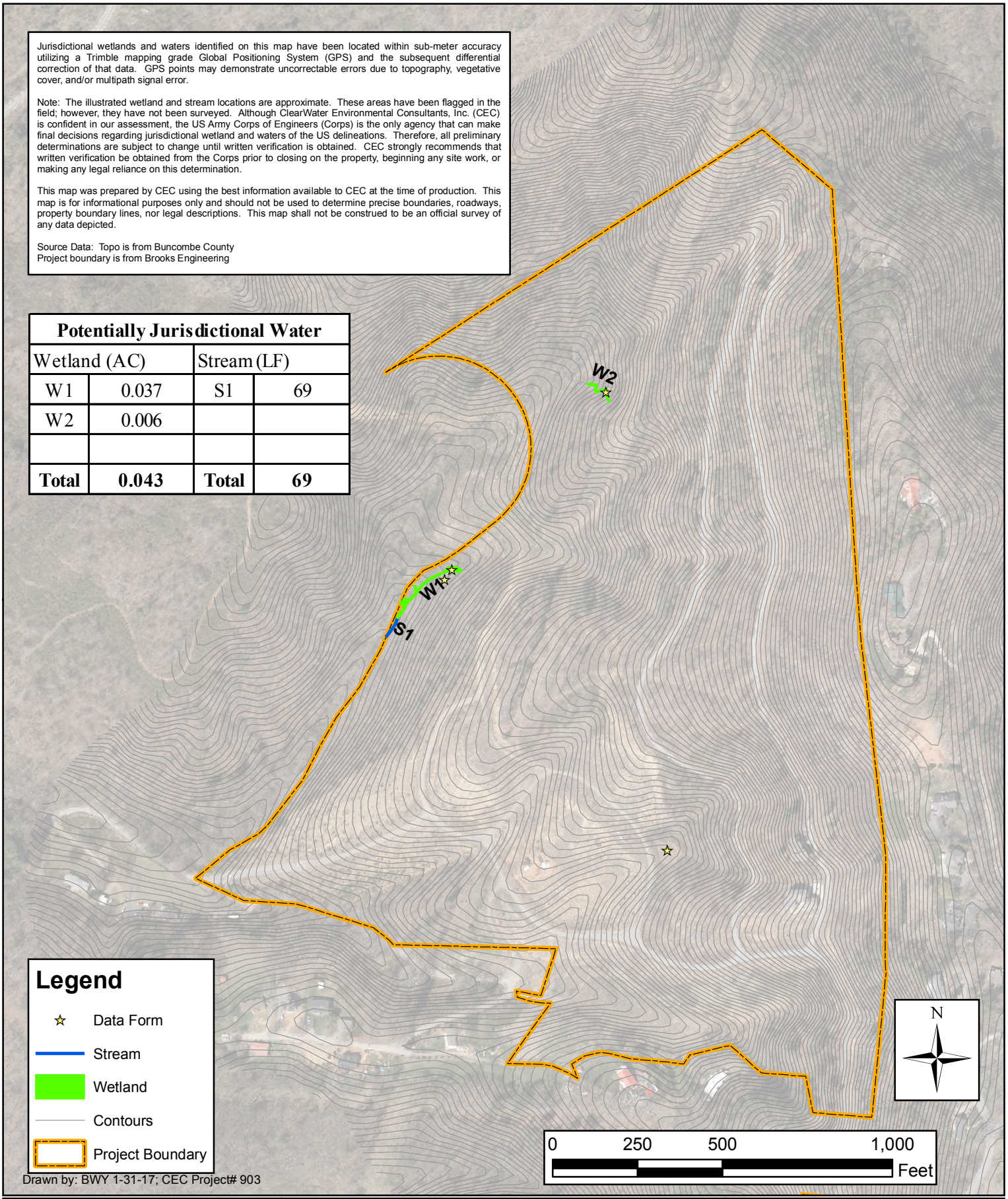
Jurisdictional wetlands and waters identified on this map have been located within sub-meter accuracy utilizing a Trimble mapping grade Global Positioning System (GPS) and the subsequent differential correction of that data. GPS points may demonstrate uncorrectable errors due to topography, vegetative cover, and/or multipath signal error.

Note: The illustrated wetland and stream locations are approximate. These areas have been flagged in the field; however, they have not been surveyed. Although ClearWater Environmental Consultants, Inc. (CEC) is confident in our assessment, the US Army Corps of Engineers (Corps) is the only agency that can make final decisions regarding jurisdictional wetland and waters of the US delineations. Therefore, all preliminary determinations are subject to change until written verification is obtained. CEC strongly recommends that written verification be obtained from the Corps prior to closing on the property, beginning any site work, or making any legal reliance on this determination.

This map was prepared by CEC using the best information available to CEC at the time of production. This map is for informational purposes only and should not be used to determine precise boundaries, roadways, property boundary lines, nor legal descriptions. This map shall not be construed to be an official survey of any data depicted.

Source Data: Topo is from Buncombe County
Project boundary is from Brooks Engineering

Potentially Jurisdictional Water			
Wetland (AC)		Stream (LF)	
W1	0.037	S1	69
W2	0.006		
Total	**0.043**	**Total**	**69**



Drawn by: BWY 1-31-17; CEC Project# 903

Buncombe County,
North Carolina

ClearWater

32 Clayton Street
Asheville, North Carolina 28801

Stream & Wetland
Delineation Map
Delineated January 27, 2017
Figure 5

McAdams
80 Charlotte Street
Suite 40
Asheville, NC 28801
919. 361. 5000

STB25001.00

March 14, 2025

Dan Mason
St. Bourke Development

RE: Altura Riverside Development – Woodfin, North Carolina – Trip Generation

Dear Dan,

Trip Generation

This letter presents a summary of the trip generation comparison for the Altura Riverside Development to reflect the change in land use density. The project is located east of Riverside Drive (SR 0251) and north of Altura Parkway in the town of Woodfin, Buncombe County, North Carolina. A Traffic Impact Analysis (TIA) was completed for the Altura Residential Development (SC 2018-146) on November 1, 2019. The land use density of the development has been changed, and this letter provides the new site plan with density in **Attachment 1**.

Based on the previous TIA, the proposed development was expected to consist of:

- 340 multi-family residential units
- 100 single family residential units
- 440 Total residential units

The proposed new land use density is as follows:

- 227 multi-family residential units
- 82 single family residential units
- 91 Townhomes
- 400 Total residential units

Site Data

Based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, and the suggested method of trip calculations provided in North Carolina Department of Transportations' (NCDOT) Rate vs. Equation spreadsheet, trips for the proposed development were calculated for weekday daily, weekday AM peak hour, and weekday PM peak hour. Refer to **Table 1** below, for a summary of the trip generation for the previous TIA land use. The 2019 TIA for the development is included in **Attachment 2**.

TABLE 1: TRIP GENERATION (BASED ON PREVIOUS TIA)

Land Use (ITE Code)	Density	Calculation Methodology	Daily Trips	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Single Family-Detached (210)	100	DU	1040	19	57	76	64	38	102
Multi-Family (221)	340	DU	2530	35	118	153	111	65	176
Total	**440**	**DU**	**3570**	**54**	**175**	**229**	**175**	**103**	**278**

Refer to Table 2 below, for a summary of the trip generation for the proposed land use.

TABLE 2: TRIP GENERATION (BASED ON NEW LAND USE DESNSITY)

Land Use (ITE Code)	Density	Calculation Methodology	Daily Trips	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Single Family-Detached (210)	82	DU	841	16	46	62	52	30	82
Signal Family -Attached (215)	91	DU	643	10	32	42	30	21	51
Multi-Family (221)	227	DU	1036	20	68	88	54	35	89
Total	**400**	**DU**	**2520**	**46**	**146**	**192**	**136**	**86**	**222**

Refer to Table 3 below, for a comparison of the trip generation for the previous land use and the proposed land use.

TABLE 3: TRIP GENERATION COMAPRISON

Condition	Density	Calculation Methodology	Daily Trips	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Previous Land Usage	440	DU	3570	54	175	229	175	103	278
Proposed Land Usage	400	DU	2520	46	146	192	136	86	222
Difference	**-40**	**DU**	**1050**	**8**	**29**	**37**	**39**	**17**	**56**
% Difference	**-9%**	**DU**	**-29%**	**-14%**	**-17%**	**-16%**	**-22%**	**-17%**	**-20%**

Summary

The proposed development is expected to have 40 fewer residential units. Based on review of the ITE trip generation calculations, the proposed development is expected to generate approximately 37 fewer external trips (8 entering and 29 exiting) during the weekday AM peak hour and 56 fewer external trips (39 entering and 17 exiting) during the weekday PM peak hour and 1050 fewer daily trips. This represents 16 percent fewer AM peak hour trips and 20 percent few PM peak hour trips during an average weekday. With the anticipated trip generation for the proposed development, recommendations from the previous TIA are not expected to change significantly.

If you should have any questions or comments relative to this analysis, please feel free to contact me at 919.361.5000.

Sincerely,

McAdams

Signed by:
S. Colin Kinton
34B9AEEC3663481...

Colin Kinton, PE | Senior Project Engineer
ckinton@mcadamsco.com | 919. 361. 5000

Attachment:
1. Site Plan
2. 2019 TIA

LOT TYPE

(#) SINGLE FAMILY (STEEP SLOPE)	69 UNITS
(#) SINGLE FAMILY	13 UNITS
	82 UNITS
MULTI-FAMILY	225 UNITS
TOWNHOMES	91 UNITS
TOTAL UNITS	398 UNITS
OPEN SPACE	29.22 AC
OWNED BY OTHERS	

STEEP SLOPE AREA (Above 2200' & 20% slope)

STREET TREE

RECOMMENDED STREET TREE SPECIES

Key		Large Deciduous Trees
AS		Acer saccharum Sugar Maple
BN		Betula nigra River Birch
LT		Liriodendron tulipifera Tulip Tree
PA		Platanus acerifolia London Plane Tree
QP		Quercus phellos Willow Oak



VICINITY MAP

North

0 60 120 240 360

Scale: 1"=120' MARCH 7, 2025 North

Altura
Rendered Master Plan

28 Hi Landa Acres
Weaverville, NC 28787
828.545.5969
www.sds-la.com

landscape architecture
planning
project management
construction observation

SITE DESIGN STUDIO

Altura Riverside Development

Woodfin, NC

Site Plan

Figure 2

McADAMS

ALTURA RESIDENTIAL DEVELOPMENT
TRANSPORTATION IMPACT ANALYSIS

FOR SUBMISSION TO:

Town of Woodfin, NC

Prepared For:
St. Bourke Development
1123 Zonolite Road NE, Suite 30
Atlanta, Georgia 30306

November 1, 2019
TPD # STBD.00001

Est. 1989
TRAFFIC PLANNING AND DESIGN, INC.

Prepared By:
Traffic Planning and Design, Inc.
1293 Hendersonville Road
Building A, Suite 9
Asheville, NC 28803

Phone: (828) 575-0133
E-mail: TPD@TrafficPD.com
Website: www.trafficpd.com

NC Business License #C-4448



Christy Staudt, P.E.
Project Manager

North Carolina License Number PE045387-E

Table of Contents

EXECUTIVE SUMMARY i
INTRODUCTION 1
BASE CONDITIONS 1
BACKGROUND CONDITIONS 3
PROJECT CONDITIONS 4
LEVELS OF SERVICE FOR AN INTERSECTION 6
CAPACITY ANALYSIS METHODOLOGY 7
2022 OPENING YEAR ANALYSIS 8
2025 BUILD OUT ANALYSIS WITH TIP IMPROVEMENTS 12
2040 BUILD OUT ANALYSIS WITH TIP IMPROVEMENTS 15
RECOMMENDATIONS 16
CONCLUSIONS 17

FIGURES 1 – 22

TECHNICAL APPENDICES

Appendix A: Project Correspondence
Appendix B: Manual Traffic Count Printouts
Appendix C: Volume Development Spreadsheets
Appendix D: Capacity Analyses
Appendix E: NCDOT Signal Plans

EXECUTIVE SUMMARY

The purpose of this analysis is to examine the potential traffic impact associated with the proposed Altura Residential development on the roadway network in the Town of Woodfin, Buncombe County, NC. Based on this evaluation, the following conclusions were reached:

1. A project scoping request was sent to NCDOT on October 23, 2018. Final scoping approval was received on March 20, 2019.
2. The study area intersections included in this TIA are as follows:
   - Riverside Drive (SR 0251) and Goodman Road
   - Mills Place and Firethorne Drive
   - Mills Place and Newbridge Parkway
   - Newbridge Parkway and the Future I-26 Eastbound Ramps (US 19 Business)
   - Future I-26 Westbound Ramps with US 19 Business (& Future I-26 EB Ramps)
   - US 19 Business/Future I-25 EB Ramps & Weaverville Road (US 25/US 19 Business)
3. The project site is located east of Riverside Drive, north of Goodman Road. The proposed site will consist of 340 multi-family homes and 100 single-family homes.
4. Upon full build-out, the proposed development is expected to generate 229 new vehicle-trips during the weekday A.M. peak hour, and 278 new vehicle-trips during the weekday P.M. peak hour.
5. Access to the site is proposed via two existing driveways: one access to Goodman Road and one full-access driveway to Altura Parkway. In addition, an internal connection between the Altura Residential Development and the proposed Riverside Community Development will provide additional access to Riverside Drive.
6. Under the 2022 and 2025 projected conditions, with implementation of the site-related recommendations, all approaches and turning movements at the site driveway intersections with the external roadway network will operate at LOS B or better during weekday A.M. and P.M. peak hours.
7. Under 2022 projected conditions, all study area intersection movements will operate at the same LOS as under background (no-build) conditions or fall within NCDOT's allowable 25% delay increase between background (no-build) and projected (build) condition scenarios with the exception of the future I-26 WB Ramps/US 19 Business intersection during the P.M. peak hour which will be mitigated under 2025 conditions with implementation of the NCDOT planned interchange improvements.
8. Under 2025 projected (full-build) conditions, with implementation of NCDOT TIP programmed improvements and improvements identified as part of this study, all study area intersection movements will operate at the same LOS under projected (build) conditions as under background (no-build) conditions or will fall within NCDOT's allowable 25% delay increase between background (no-build) and projected (build) condition scenarios.
9. SIDRA roundabout analysis completed for the Future I-26 EB Ramps (US 19 Bus) & Newbridge Parkway intersection utilizing Year 2040 based projections developed for the TIP I-26 improvement project indicate acceptable operations and no approach failures
10. Traffic Planning and Design Inc. (TPD) recommends the following roadway improvements as outlined at the study area intersections:

Goodman Road & Riverside Drive (SR 0251)

» Evaluate re-alignment of Goodman Road to improve available sight distance

Altura Parkway & Dimora Drive/Driveway

» Provide a stop sign to control exiting traffic on Dimora Drive

Firethorn Drive & Stillview Drive (not studied due to low cul-de-sac volumes)

» The cul-de-sac on the western end of Firethorn Drive only serves one home. Given that Stillview Drive has a steep approach grade and is the main traffic movement, stop compliance is anticipated to be an issue. As such, the stop control should be reversed to provide stop control on the Firethorn Drive approaches, instead of Stillview Drive.

INTRODUCTION

Traffic Planning and Design, Inc. (TPD) has completed a Transportation Impact Analysis (TIA) for the proposed Altura Residential development in the Town of Woodfin in Buncombe County, North Carolina. The project site is located east of Riverside Drive (SR 0251), and north of Altura Parkway as shown in **Figure 1**. As shown in **Figure 2**, the proposed site will consist of 340 multi-family residential units and 100 single-family residential units.

This report has been prepared in accordance with NCDOT's *Policy on Street and Driveway Access to North Carolina Highways, 2003* and the *NCDOT Congestion Management Capacity Analysis Guidelines, 2015*. The project scope and the extent of the study area were submitted to NCDOT. Background growth rates and intersections of study were verified. All relevant correspondence pertaining to this project has been included in **Appendix A**.

Site Access Locations

The proposed site will be served by extension of the existing Altura Parkway via Wind Whisper Drive, an internal connection between Altura Residential and the proposed Riverside Community and connection to Goodman Road off of Riverside Drive. The proposed residential development will connect into or extend from existing local neighborhood streets rather than NCDOT maintained collector or arterial roadways. As such, the 100-foot minimum stem length requirement is not applicable for this development.

Please note, the applicant is aware of sight distance issues related to the Goodman Road intersection with Riverside Drive and is working on realignment plans that may include combining Goodman Road with the Riverside Community Development's Site Access A. Once a realignment configuration is available, plans will be submitted to NCDOT for review and approval.

BASE CONDITIONS

Existing Roadway Network

A field review of the existing roadway system in the study area was conducted. The existing roadway characteristics within the study area are summarized in **Table 1**. The existing lane configuration and intersection controls for the study area intersections are shown in **Figure 3**. The future lane configuration and intersection controls for the study area intersections are shown in **Figure 4**.

TABLE 1
ROADWAY CHARACTERISTICS WITHIN STUDY AREA

Roadway	Roadway Maintenance	Predominant Directional Orientation	Posted Speed Limit
Riverside Drive (SR 0251)	NCDOT	North-South	35 mph
Goodman Drive	Local	East-West	20 mph
Mills Place	Local	North-South	25 mph
Firethorn Drive	Local	East-West	Not Posted
Newbridge Parkway	Local	East-West	Not Posted
Future I-26 EB Ramps (US 19 Business)	NCDOT	North-South (@ Newbridge Parkway)	Not Posted
Weaverville Highway (US 25)	NCDOT	North-South	35 mph

Bicycle and Pedestrian Facilities

Based on observations during field visits at the study area intersections, there are no pedestrian accommodations present in the vicinity of the proposed development.

Mass Transit Facilities

There are no scheduled bus routes in the vicinity of the proposed development

Crash Data Investigation

Crash data were requested from NCDOT for the study area intersections. The data has not yet been received.

Existing Traffic Conditions

Manual Turning Movement Counts

Manual traffic counts were conducted on 15-minute intervals during the weekday morning (7:00 to 9:00 A.M.), and weekday evening (2:30 to 6:00 P.M.) peak periods. Data pertaining to heavy vehicles, pedestrians and transit vehicles were observed during the manual counts. Peak hours and count dates for the study area intersections are identified in **Table 2**.

TABLE 2
MANUAL TRAFFIC COUNT INFORMATION

Intersection	Date of Traffic Counts	Time Period	Intersection Peak Hour[1]
Riverside Drive (SR251) & Goodman Road	Tuesday October 30, 2018	Weekday A.M.	7:15 to 8:15 AM
		Weekday P.M.	4:30 to 5:30 PM
Mills Place & Firethorne Drive	Tuesday October 30, 2018	Weekday A.M.	7:30 to 8:30 AM
		Weekday P.M.	4:45 to 5:45 PM
Mills Place & Newbridge Parkway	Tuesday October 30, 2018	Weekday A.M.	7:30 to 8:30 AM
		Weekday P.M.	4:45 to 5:45 AM
Future I-26 EB Ramps (US 19 Bus) & Newbridge Parkway	Tuesday October 30, 2018	Weekday A.M.	7:30 to 8:30 AM
		Weekday P.M.	4:30 to 5:30 PM
Future I-26 WB Ramps & US 19 Business	Tuesday October 30, 2018	Weekday A.M.	7:30 to 8:30 AM
		Weekday P.M.	4:30 to 5:30 PM
Weaverville Road (US 25) & US 19 Business	Tuesday October 30, 2018	Weekday A.M.	7:45 to 8:45 AM
		Weekday P.M.	4:30 to 5:30 AM

(1) Peak Hour consists of the four consecutive 15-minute intervals where the highest traffic volumes occur.

Existing condition traffic volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 5 and 6**, respectively. Manual traffic count data sheets are provided in **Appendix B**.

Automatic Traffic Recorder Counts

Automatic Traffic Recorder (ATR) counts were conducted along Riverside Drive (SR 0251) in the vicinity of the proposed site driveways in order to determine the existing traffic volumes on a 24-hour weekday basis and speeds.

The ATR counts were conducted from Tuesday October 30, 2018 to Monday November 5, 2018. ATR counts are provided in **Appendix B**.

BACKGROUND CONDITIONS

Annual Background Growth

Background growth factors for the roadways in the study area were provided to TPD by NCDOT staff. A background growth trend factor of 1% per year was utilized. As such, the background growth factors were applied annually to yield overall growth percentages of 4.06% (1% per year, compounded over 4 years) for the 2022 future year and 7.21% (1% per year, compounded over 7 years) for the 2025 future year, where applicable.

Nearby Proposed Developments

Background (no-build) traffic conditions were calculated to include traffic volumes from proposed developments, though not operating under existing conditions, may be operating by the opening year (2022) of the proposed development. The following nearby planned development was included in this study:

Riverside Community is proposed to consist of 278 single-family homes and 40 multi-family homes to be constructed in two phases. Phase I will consist of 149 single-family homes and Phase II will consist of 129 single-family homes and 40 multi-family homes. The proposed development will be located on the north side of Goodman Road, east of Riverside Drive. Trip generation and distributions were for this development were based on the *Riverside Community Development TIA*, prepared by TPD and submitted to NCDOT on July 25, 2019 (resubmitted on October 1, 2019). Consistent with the submitted TIA, Phase I is anticipated to be built out by 2022 with full build-out by 2025.

The additional traffic volumes due to background growth and the background development were added to the existing traffic data to produce 2022 and 2025 background (no-build) condition traffic volumes. Background condition volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 7 and 8** for the 2022 future year conditions and **Figures 9 and 10** for the 2025 future year conditions.

Programmed Improvements

TIP A-0010AA & U 4715 B: These projects incorporate Future I-26 modernization and interchange/intersection upgrades in the study area. Improvements are anticipated at the Future I-26 Interchange at Weaverville Road (US 25 & US 19 Business) Exit 25 in Asheville. Based on figures provided by NCDOT's project consultant, AECOM, the identified interchange improvements within the study area are as follows:

- Newbridge Parkway and Route 19/I-26 EB Ramps: Construction of a single lane roundabout
- I-26 WB Off-Ramp: relocate the ramp to intersect with Route 19 opposite Weaverville Road (Business Route 25/19). The existing northbound Weaverville Road will merge with Merrimon Avenue, to become the new westbound approach.
- Weaverville Road (Business Route 25/19) and Relocated I-26 WB Off-Ramp: A separate right turn lane and thru lane on the eastbound approach. Two thru lanes and a separate right turn lane on the westbound approach. Separate left, thru and right turn lane on the northbound approach. Dual lefts and dual rights on the southbound Weaverville Road approach.

Year 2025 volumes with implementation of the TIP were developed based on the 2040 future volumes and I-26 interchange improvements identified by NCDOT's consultant AECOM. TPD developed 2025 base (no-build) volumes by interpolating between the existing 2018 volumes and 2040 future year volumes, and then adding the Altura Residential Development site traffic. Study area intersections, which were not included in AECOM's TIP analysis, were assumed to experience a growth rate of 1% per year, consistent with the 2022 future year analyses.

Relevant volume projection and future lane configuration figures provided by AECOM as well as TPD calculations are included in **Appendix C**.

PROJECT CONDITIONS

Trip Generation

The trip generation rates for the proposed development were obtained from the manual *Trip Generation*, 10th Edition, 2017, an Institute of Transportation Engineers (ITE) Informational Report. The statistics in *Trip Generation* are empirical data based on more than 4,800 trip generation studies. The data are categorized by Land Use Codes, with total vehicular trips for a given land use estimated using an independent variable and statistically generated rates or equations.

For the proposed development, Land Use Codes 210 (Single-Family Detached Housing) and 220 (Multi-Family Housing, Low Rise) from *Trip Generation* was used to calculate the number of vehicular trips the development will generate during the following time periods: (1) average weekday; (2) weekday A.M. peak hour; and (3) weekday P.M. peak hour. **Table 3** shows the rates/equations and directional percentages for the analyzed time periods.

TABLE 3
ITE TRIP GENERATION DATA

Land Use	ITE #	Time Period	Equations/Rates	Entering %
Single-Family Detached Housing	210	Weekday A.M. Peak Hour	T = 0.71*(X) + 4.8	25%
		Weekday P.M. Peak Hour	Ln(T) = 0.96*Ln(X) + 0.20	63%
		Weekday	Ln(T) = 0.92*Ln(X) + 2.71	50%
Multi-Family Housing (Low Rise)	220	Weekday A.M. Peak Hour	Ln(T) = 0.95*Ln(X) – 0.51	23%
		Weekday P.M. Peak Hour	Ln(T) = 0.89*Ln(X) – 0.02	63%
		Weekday	T = 7.56*(X) – 40.86	50%

T = number of site-generated vehicular trips
X = independent variable (dwelling units)

The calculated trip generation for the proposed development is shown in **Table 4**.

TABLE 4
TRIP GENERATION SUMMARY

Time Period	Land Use	Size	Altura Residential Development		
			Total	Enter	Exit
A.M. Peak Hour	Single-Family	100 du	76	19	57
	Multi-Family	340 du	153	35	118
	Total	**440 du**	**229**	**54**	**175**
P.M. Peak Hour	Single-Family	100 du	102	64	38
	Multi-Family	340 du	176	111	65
	Total	**440 du**	**278**	**175**	**103**
Weekday	Single-Family	100 du	1040	520	520
	Multi-Family	340 du	2530	1265	1265
	Total	**440 du**	**3570**	**1785**	**1785**

Based on the trip generation analysis summarized in **Table 4**, the proposed development will generate approximately 229 new trips during the weekday A.M. peak hour, and 278 new trips during the weekday P.M. peak hour at full build out.

Trip Distribution

The distribution of trips generated by the proposed development was based on the local road network, the existing traffic patterns, the proposed use of the site, and the site driveway locations. The new trips for the proposed development were distributed to the local roadway network based on the percentages shown in **Table 5**.

TABLE 5
TRIP DISTRIBUTION PERCENTAGES

Direction - To/From	Assignment (To/From)	AM Distribution Percent		PM Distribution Percent	
		Enter	Exit	Enter	Exit
North	Via Future I-26	15%	10%	15%	20%
	via Weaverville Road (US Bus 19)	5%	5%	5%	5%
South	via Riverside Drive (SR 0251)	5%	5%	5%	5%
	via Future I-26	45%	50%	40%	45%
	via Weaverville Road (US 25)	30%	30%	35%	25%

Trip assignment percentages for the 2022 opening year are shown in **Figures 11 and 12**, for the weekday A.M. peak hour, respectively. The assignment of site-generated trips for the 2022 opening year of the proposed development during the weekday A.M. and P.M. peak hours are shown in **Figures 13 and 14**, respectively.

Trip assignment percentages for the 2025 design year are shown in **Figures 15 and 16**, for the weekday A.M. peak hour, respectively. The assignment of site-generated trips for the 2025 design year of the proposed development during the weekday A.M. and P.M. peak hours are shown in **Figures 17 and 18**, respectively.

Projected (Build) Condition Traffic Volumes

The site-generated trips for the proposed development were added to the 2022 base (no-build) condition traffic volumes to develop 2022 projected (build) condition traffic volumes.

Projected condition traffic volumes for the future year of 2022 for the weekday A.M. and P.M., peak hours are shown in **Figures 19 and 20**, respectively. Projected condition traffic volumes for the design year of 2025 for the weekday A.M. and P.M., peak hours are shown in **Figures 21 and 22**, respectively. Traffic volume development worksheets are contained in **Appendix C**.

LEVELS OF SERVICE FOR AN INTERSECTION

For analysis of intersections, level of service is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. LOS criteria is stated in terms of control delay per vehicle for a one-hour analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The criteria are shown in **Table 6**. Delay, as it relates to level of service, is a complex measure and is dependent upon a number of variables. For signalized intersections, these variables include the quality of vehicle progression, the cycle length, the green time ratio, and the volume/capacity ratio for the lane group in question. For unsignalized intersections, delay is related to the availability of gaps in the flow of traffic on the major street and the driver's discretion in selecting an appropriate gap for a particular movement from the minor street (straight across, left or right turn).

TABLE 6
LEVEL OF SERVICE CRITERIA
UNSIGNALIZED AND SIGNALIZED INTERSECTIONS[1]

Level of Service	Control Delay Per Vehicle (Seconds)	
	Signalized	Unsignalized
A	< 10	< 10
B	> 10 and < 20	> 10 and < 15
C	> 20 and < 35	> 15 and < 25
D	> 35 and < 55	> 25 and < 35
E	> 55 and < 80	> 35 and < 50
F	> 80 or v/c > 1.0	> 50 or v/c > 1.0

1 Obtained from Exhibits 18-4 and 19-1 of the Transportation Research Board's Highway Capacity Manual 2010

CAPACITY ANALYSIS METHODOLOGY

Capacity analyses were conducted for the weekday A.M. and P.M., peak hours at the study area intersections. These analyses were conducted according to the methodologies contained in the 2010 *Highway Capacity Manual* (HCM) using *Synchro 10* software, a Trafficware product. The NCDOT TIP planned roundabout at the intersection of Newbridge Parkway at I-26 Eastbound Ramps and US 19 Business has been analyzed utilizing *SIDRA Intersection 8.0* software by Akcelik and Associates Pty Ltd.

The following conditions were analyzed, as applicable:

- Existing conditions;
- 2022 Background conditions (build-out year without development);
- 2022 Projected conditions (build-out year with development);
- 2025 Background conditions (NCDOT TIP project implementation without development);
- 2025 Projected conditions (NCDOT TIP project implementation with build-out of development);
- 2040 Background conditions (NCDOT TIP project implementation without development for the Newbridge Parkway at I-26 Eastbound Ramps and US 19 Business intersection only); and
- 2040 Projected conditions (NCDOT TIP project implementation with full build-out of both Riverside Community and Altura Residential developments for the Newbridge Parkway at I-26 Eastbound Ramps and US 19 Business intersection only).

In addition, capacity analyses were conducted at the proposed site driveway intersections under the 2022 and 2025 projected conditions. In accordance with NCDOT's *Policy on Street and Driveway Access to North Carolina Highways*, the following default factors have been utilized:

- Future year 2022 and 2025 analysis peak hour factors have been adjusted to 0.90 at all study area intersections.
- Under existing condition analyses, truck percentages were entered for each movement based on the existing turning movement counts. Under 2022 and 2025 future-year analyses, truck percentages were increased as necessary to show a minimum of 2% trucks.
- The right turns on red (RTOR) option has not been utilized at signalized intersections;
- Where signalized intersections have left-turn signal phasing, future year 2022 and 2025 analyses have assumed phasing to be protected only.
- Pedestrian timings have not been utilized for this analysis.

- When pedestrian signal equipment is present and/or proposed, the default walk times have been set to 7.0 seconds.
- For existing signalized intersections, the signal timing settings indicated on NCDOT record traffic signal plans were utilized.
- Under existing conditions, yellow and all red timings are consistent with the NCDOT record traffic signal plans.
- Under future conditions, yellow and all red timings are equal to 7 seconds (5 seconds for yellow, 2 seconds for red), per NCDOT guidelines.
- Total lost time for all conditions is equal to 5 seconds; the lost time adjust is calculated based on the corresponding yellow + all red timing and a startup lost time of 2 seconds.

The capacity analysis worksheets are included in **Appendix D.** Existing NCDOT traffic signal plans are included in **Appendix E.**

NCDOT's Transportation Impact Study Guidelines outlined in NCDOT's *Policy on Street and Driveway Access to North Carolina Highways*, dated July, 2003 contain the following criteria regarding levels of service:

- Page 21-22 of the Guidelines state that the applicant will be required to identify mitigation improvements to the roadway network if at least one of the following conditions exists when comparing base network conditions to project conditions:
- The total average delay at an intersection or individual approach increases by 25% or greater, while maintaining the same level of service;
- The Level of Service degrades by at least one level;
- Level of Service is "F"; and
- Page 22 of the Guidelines state that for turning lanes, improvements shall be identified when the analysis indicates that 95th percentile queue exceeds the storage capacity of the existing lane.

2022 OPENING YEAR ANALYSIS

LEVELS OF SERVICE IN THE STUDY AREA

Level of service (LOS) matrices for the study area intersections are shown in **Table 7** for the weekday A.M., and weekday P.M. peak hours.

TABLE 7
LEVEL OF SERVICE DELAY (SECONDS) SUMMARY

Intersection	Move-ment	Weekday A.M. Peak Hour							Weekday P.M. Peak Hour						
		Existing Condition		2022 Conditions					Existing Condition		2022 Conditions				
				Background		Projected		%			Background		Projected		%
		LOS	Delay	LOS	Delay	LOS	Delay	Change[1]	LOS	Delay	LOS	Delay	LOS	Delay	Change[1]
Riverside Drive (SR 0251) & Goodman Rd	WB LR	A	9.3	A	9.5	A	9.5	0%	A	9.9	B	10.2	B	10.2	0%
	SB L	A	8.4	A	8.5	A	8.5	0%	A	8.1	A	8.2	A	8.2	0%
Mills Place & Firethorne Drive	EB LR	A	8.6	A	8.7	A	9.6	10%	A	8.6	A	8.7	A	9.1	5%
	NB L	A	7.3	A	7.3	A	7.4	1%	A	7.3	A	7.4	A	7.7	4%
Mills Place & Newbridge Parkway[2]	EB LTR	A	6.3	A	4.8	A	5	4%	A	5.4	A	6.6	A	4.4	-33%
	WB LTR	A	0.4	A	0.1	A	0.8	700%	A	0.6	A	1.2	A	1.3	8%
	NB LTR	A	3.1	A	4.6	A	4.4	-4%	A	3.8	A	3.9	A	4.2	8%
	SB LTR	A	4.4	A	4.8	A	3.8	-21%	A	4.3	A	4.7	A	5.5	17%
Newbridge Parkway & I-26 EB Ramps/US 19 Business	EB L	B	11.9	B	12.8	C	16.7	30%	B	13	B	13.7	C	22.4	64%
	EB R	A	9.9	B	10.1	B	10.8	7%	A	9.6	A	9.5	A	9.9	4%
	NB L	A	8.1	A	8.2	A	8.3	1%	A	7.8	A	7.9	A	8.3	5%
Future I-26 WB Ramps & US 19 Business	EB L	A	8.25	A	8.4	A	8.5	1%	A	9.2	A	9.7	B	10.2	5%
	NB L	B	13.3	B	14.2	C	16.8	18%	B	14	C	17	D	27.6	62%
	NB TR	B	13.8	B	14.9	C	16.5	11%	B	12	B	13.5	B	14.2	5%
US 19 Business (Future I-26 WB Ramps) & Weaverville Road (US 25/US 19 Business)	EB L	B	18.2	C	22	C	22.6	3%	B	18.8	C	30	D	36.7	22%
	EB TR	B	13.7	B	16	B	16.3	2%	B	12.9	B	18.7	C	21.2	13%
	WB LT	B	13.5	B	15.9	B	16.1	1%	B	13.2	B	19.2	C	21.8	14%
	WB R	B	13.2	B	15.4	B	15.6	1%	B	12.8	B	18.4	C	20.9	14%
	NB L	B	10.5	C	28.1	C	29.4	5%	B	12.5	D	40	D	43	8%
	NB TR	B	10.7	B	13.2	B	13.5	2%	B	14.2	B	18.6	B	18.2	-2%
	SB L	B	10.5	B	28.7	C	29.7	3%	B	15.1	D	38.3	D	43	12%
	SB T	B	17.4	C	22.2	C	23.3	5%	C	20.9	C	32.2	D	40.1	25%
	SB R	A	0	A	0	A	0	0%	A	0	A	0	A	0	0%
	ILOS	**B**	**15.5**	**C**	**21.0**	**C**	**21.9**	**4%**	**B**	**15.9**	**C**	**28.3**	**C**	**32.4**	**14%**
Altura Parkway & Dimora Drive	EB L	--	--	A	7.3	A	7.4	1%	--	--	A	7.3	A	7.7	5%
	SB LR	--	--	A	8.8	A	10	14%	--	--	A	8.8	B	10	14%
Riverside Drive & Charter Mountain Access A	WB LR	--	--	B	10.6	B	10.8	2%	--	--	B	10.3	B	10.5	2%
	SB L	--	--	A	7.4	A	7.4	0%	--	--	A	7.6	A	7.7	1%
Riverside Drive & Charter Mountain Access B	WB LR	--	--	B	10.5	B	10.6	1%	--	--	B	10.2	B	10.2	0%
	SB L	--	--	A	7.4	A	7.4	0%	--	--	A	7.6	A	7.6	0%
Dimora Drive & Altura Access	EB LR	--	--	--	--	A	9.3	--	--	--	--	--	A	9	--
	NB L	--	--	--	--	A	7.3	--	--	--	--	--	A	7.6	--

Background = No-Build scenario; Projected = Build scenario
[1]Percent increase in delay from background to projected conditions
[2]Due to unconventional stop control and HCM2010 limitations, this intersection was analyzed utilizing SimTraffic

As shown in **Table 7**, under 2022 projected conditions with the development of the proposed site, all movements at the study area intersections will operate at the same level of service (LOS) as under 2022 background (no-build) conditions or fall within NCDOT's allowable 25% delay increase during the weekday A.M. and P.M. peak hours with the exception of Newbridge Parkway at I-26 EB Ramps/US 19 Business and

Future I-26 WB Ramps at US 19 Business. These two intersections are expected to have acceptable delay and levels-of-service; however, the increase in delay exceeds the allowable limit of 25 percent. Both of these intersections are expected to be reconfigured with implementation of the NCDOT TIP A-0010AA & U-4715B projects.

QUEUE ANALYSIS

Queue analyses were conducted at the study area intersections using *Synchro 10* software. For this analysis, both the 95th percentile Synchro queue and the maximum SimTraffic queue were evaluated. The higher of the two is reported in **Table 8.** The 95th percentile queue is defined as the queue length that is exceeded in 5% of the signal cycles. As an example, for a signal with a 90-second cycle, this means that the 95th percentile queue length will be exceeded during 2 of the 40 signal cycles that occur during the peak hour. The queue analysis results are summarized in **Table 8** for the analyzed peak hours.

TABLE 8
MAXIMUM SIMTRAFFIC QUEUE (FEET) ANALYSIS YEAR 2022

Intersection	Move-ment	Available Storage	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
			Existing Condition	2022 Conditions		Existing Condition	2022 Conditions	
				Background	Projected		Background	Projected
Riverside Drive (SR 0251) & Goodman Road	WB LR	100+	0	28	28	0	52	28
	SB L	100+	0	67	0	0	0	0
Mills Place & Firethorne Drive	EB LR	100+	0	5[3]	23[3]	0	3[3]	13[3]
	NB L	100+	0	0	30	29	3[3]	29
Mills Place & Newbridge Parkway[2]	EB LTR	100+	48	50	47	48	27	27
	WB LTR	65[1]	0	0	0	56	56	93
	NB LTR	100+	30	28	30	54	31	54
	SB LTR	190[1]	55	78	31	31	30	31
Newbridge Parkway & I-26 EB Ramps/US 19 Business	EB L	65[1]	52	50	52	51	53	55
	EB R	65[1]	55	79	31	53	31	52
	NB L	170	26	27	27	26	49	75
Future I-26 WB Ramps & US 19 Business	EB L	200	21	20	20	103	42	41
	NB L	200+	27	48	64	50	714	714
	NB TR	200+	306	284	690	367	732	714
US 19 Business (Future I-26 WB Ramps) & Weaverville Road (US 25/US 19 Business)	EB L	100[1]	168[3]	220[3]	233[3]	185[3]	298[3]	343[3]
	EB TR	200+	148	152	133	113	140	137
	WB LT	75	20[3]	34	34	99	79	78[3]
	WB R	100+	3[3]	5	6	29	25	18[3]
	NB L	350+	122	95[3]	150	258	365[3]	460[3]
	NB TR	350+	113	90[3]	115	230[3]	335[3]	350[3]
	SB L	120	52	52	52	31	47	30
	SB T	300+	328	320[3]	330[3]	180[3]	283[3]	323[3]
	SB R	300+	0	0	0	0	124	203
Altura Parkway & Dimora Drive	EB L	50+	--	0	0	--	0	0
	WB LR	50+	--	55	54	--	30	55
Riverside Drive & Charter Mountain Access A	WB LR	600	--	16	31	--	30	31
	SB L	50+	--	0	0	--	0	0
Riverside Drive & Charter Mountain Access B	WB LR	230	--	31	52	--	57	29
	SBL	50+	--	0	0	--	0	0
Dimora Drive & Altura Access	EB LR	230	--	0	76	--	0	56
	NB L	50+	--	0	3	--	0	13[3]

Background = No-Build scenario; Projected = Build scenario
[1]Distance to adjacent intersection
[2]Due to unconventional stop control and HCM2010 limitations, this intersection was analyzed utilizing SimTraffic
[3]95th percentile Synchro queue

As shown in **Table 8,** adequate queue storage will be provided for the turn lanes in 2022 with construction of the proposed development or there will be no discernable change from background to projected conditions with exception of US 19 Business (Future I-26 WB Ramps) at Weaverville Road (US 25/US 19 Business). As previously indicated, these issues should be resolved with the planned NCDOT TIP projects. Queue analysis worksheets are included with the capacity analysis worksheets provided in **Appendix D**.

2025 BUILD OUT ANALYSIS WITH TIP IMPROVEMENTS

TPD analyzed the 2025 future year scenario with build-out of the proposed site and implementation of the anticipated TIP improvements at the I-26 interchange intersections with US 19. For the future intersection of US 19 Business (Future I-26 WB Ramps) and Weaverville Road (US 25/US 19 Business), signal timings were optimized for both Background and Projected conditions under Year 2025 conditions as actual timings are not known at this time. Future lane configurations are shown in **Figure 4**. Capacity and queueing analysis results are summarized in **Tables 9 and 10**.

Level of Service Analysis

As shown in **Table 9**, under 2025 projected conditions with full build-out of the proposed site, all movements at the study area intersections will operate at the same level of service (LOS) as under 2025 background (no-build) conditions or fall within NCDOT's allowable 25% delay increase during the weekday A.M. and P.M. peak hours with the following exception:

- Newbridge Parkway/Future I-26 EB Ramps (US 19 Business) during the A.M. and P.M. peak hours. The anticipated roundabout, with the I-26 TIP improvements, is expected to operate at ILOS B during the A.M. peak hour with a 31 percent increase in overall delay. The intersection is anticipated to operate at ILOS B during the P.M. peak hour with a 51 percent increase in delay for the northbound approach, 36 percent increase for the southbound approach and a 44 percent increase overall; however, additional mitigation or improvements are not recommended at this time.

See next page for Table 10.

TABLE 9
LEVEL OF SERVICE DELAY (SECONDS) SUMMARY

Intersection	Move-ment	Weekday A.M. Peak Hour							Weekday P.M. Peak Hour						
		Existing Condition		2025 Conditions[4]					Existing Condition		2025 Conditions[4]				
				Background		Projected		%			Background		Projected		%
		LOS	Delay	LOS	Delay	LOS	Delay	Change[1]	LOS	Delay	LOS	Delay	LOS	Delay	Change[1]
Riverside Drive (SR 0251) & Goodman Road	WB LR	A	9.3	A	9.7	B	9.7	0%	A	9.9	B	10.6	B	10.7	1%
	SB L	A	8.4	A	8.5	A	8.5	0%	A	8.1	A	8.4	A	8.4	0%
Mills Place & Firethorne Drive	EB LR	A	8.6	A	8.9	A	9.8	10%	A	8.6	A	8.8	A	9.3	6%
	NB L	A	7.3	A	7.4	A	7.5	1%	A	7.3	A	7.5	A	7.8	4%
Mills Place & Newbridge Parkway[2]	EB LTR	A	6.3	A	4.9	A	4.5	-8%	A	5.4	A	4.7	A	7.3	55%
	WB LTR	A	0.4	A	0.1	A	0.3	200%	A	0.6	A	0.4	A	0.9	125%
	NB LTR	A	3.1	A	3.3	A	3	-9%	A	3.8	A	3.2	A	2.5	-22%
	SB LTR	A	4.4	A	3.9	A	4.3	10%	A	4.3	A	6.1	A	4.2	-31%
Newbridge Parkway & I-26 EB Ramps/US 19 Business[3]	EB L	B	11.9	A	6.7	B	10.1	51%	B	13	A	5.5	A	6.8	24%
	EB R	A	9.9						A	9.6					
	NB L(T)	A	8.1	A	7.4	A	9.7	31%	A	7.8	A	8.4	B	12.7	51%
	SB TR	--	--	A	6.2	A	6.8	10%	--	--	A	5.5	A	7.5	36%
	ILOS	**--**	**--**	**A**	**6.8**	**B**	**8.9**	**31%**	**--**	**--**	**A**	**7**	**B**	**10.1**	**44%**
Future I-26 WB Ramps & US 19 Business	EB L	A	8.25	A	8.7	A	9	3%	A	9.2	B	10.4	B	11.5	11%
	NB L	B	13.3	--	--	--	--	--	B	14	--	--	--	--	--
	NB TR	B	13.8	--	--	--	--	--	B	12	--	--	--	--	--
US 19 Business (Future I-26 WB Ramps) & Weaverville Road (US 25/US 19 Business	EB L	B	18.2	C	20.3	C	21	3%	B	18.8	C	23.4	C	26.8	15%
	EB T(R)	B	13.7	B	19.5	C	20.2	4%	B	12.9	B	17.1	B	17.4	2%
	WB (L)T	B	13.5	B	16.5	B	16.5	0%	B	13.2	B	17.8	B	18.8	6%
	WB R	B	13.2	B	19.5	B	18.9	-3%	B	12.8	C	23.4	C	23.2	-1%
	NB L	B	10.5	C	24.1	C	25.9	7%	B	12.5	C	31.2	C	31.9	2%
	NB T	--	--	C	20.4	C	22.1	8%	--	--	C	26	C	26.7	3%
	NB R	B	10.7	B	16.6	B	17.9	8%	B	14.2	B	19	B	19.4	2%
	SB L	B	10.5	C	21.8	C	23.4	7%	B	15.1	C	29.3	C	29.9	2%
	SB T	B	17.4	--	--	C	--	--	C	20.9	--	--	--	--	--
	SB R	A	0	A	0	C	0	0%	A	0	A	0	A	0	0%
	ILOS	**B**	**15.5**	**B**	**19.7**	**C**	**20.4**	**4%**	**B**	**15.9**	**C**	**22.6**	**C**	**22.9**	**1%**
Altura Parkway & Dimora Drive	EB L	--	--	A	7.3	C	7.4	1%	--	--	A	7.4	A	7.8	5%
	SB LR	--	--	A	9	C	10.3	14%	--	--	A	9.1	B	10.4	14%
Riverside Drive & Charter Mountain Access A	WB LR	--	--	B	11.4	C	11.5	1%	--	--	B	11.1	B	11.3	--
	SB L	--	--	A	7.5	C	7.5	0%	--	--	A	7.8	A	7.8	--
Riverside Drive & Charter Mountain Access B	WB LR	--	--	B	11.1	C	11.2	1%	--	--	B	10.9	B	11	--
	SB L	--	--	A	7.5	C	7.5	0%	--	--	A	7.7	A	7.7	--
Riverside Drive & Charter Mountain Access C	WB R	--	--	A	8.8	C	8.8	0%	--	--	A	9.2	A	9.2	--
Dimora Drive & Altura Access	EB LR	--	--	--	--	C	9.5	--	--	--	--	--	A	9.2	--
	NB L	--	--	--	--	C	7.4	--	--	--	--	--	A	7.7	--

Background = No-Build scenario; Projected = Build scenario; [1]Percent increase in delay from background to projected conditions
[2]Due to unconventional stop control and HCM2010 limitations, this intersection was analyzed utilizing SimTraffic
[3]This intersection was analyzed utilizing SIDRA Intersection 8.0 software for Background and Projected scenarios
[4]Analysis includes NCDOT TIP improvements summarized earlier in this report.

Queue Analysis

TABLE 10
MAXIMUM SIMTRAFFIC QUEUE (FEET) ANALYSIS YEAR 2025

Intersection	Move-ment	Available Storage	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
			Existing Condition	2025 Conditions[5]		Existing Condition	2025 Conditions[5]	
				Background	Projected		Background	Projected
Riverside Drive (SR 0251) & Goodman Road	WB LR	100+	0	0	28	0	51	28
	SB L	100+	0	0	0	0	0	0
Mills Place & Firethorne Drive	EB LR	100+	0	8[3]	28[3]	0	5[3]	15[3]
	NB L	100+	0	3[3]	5[3]	29	29	29
Mills Place & Newbridge Parkway[2]	EB LTR	100+	48	44	45	48	27	47
	WB LTR	65[1]	0	0	0	56	0	20
	NB LTR	100+	30	9	11	54	38	11
	SB LTR	190[1]	55	52	31	31	49	54
Newbridge Parkway & I-26 EB Ramps/US 19 Business[4]	EB L	65[1]	49	29	77	50	29	50
	EB R	65[1]	31			77		
	NB L(T)	170 (575)	28	78	101	26	95	175
	SB TR	100+	--	57	64	--	33	46
Future I-26 WB Ramps & US 19 Business	EB L	200	21	30	31	103	53	96
	NB L	200+	27	--	--	50	--	--
	NB TR	200+	306	--	--	367	--	--
US 19 Business (Future I-26 WB Ramps) & Weaverville Road (US 25/US 19 Business)	EB L	200[1]	168[3]	83	58[3]	185[3]	40[3]	48[3]
	EB T(R)	200+	148	228[3]	270[3]	113	160[3]	183[3]
	WB (L)T	400+	20[3]	183	141	99	195[3]	243[3]
	WB R	375	3[3]	283[3]	293[3]	29	518[3]	525[3]
	NB L	100	122	61	87	258	200	199
	NB T	400+	113	210[3]	223[3]	230[3]	338	339
	NB R	150		92	89		250	113
	SB L	300	52	160	161	31	146	161
	SB T	300+	328	--	--	180[3]	--	--
	SB R	275	0	150	163	0	165	164
Altura Parkway & Dimora Drive	EB L	50+	--	0	0	--	0	0
	WB LR	100+	--	74	54	--	30	30
Riverside Drive & Charter Mountain Access A	WB LR	600	--	49	55	--	48	78
	SB L	50+	--	0	0	--	0	0
Riverside Drive & Charter Mountain Access B	WB LR	230	--	30	32	--	30	77
	SB L	50+	--	0	0	--	0	31
Riverside Drive & Charter Mountain Access C	WB R	230	--	0	29	--	0	0
Dimora Drive & Altura Access	EB LR	50+	--	0	76	--	0	54
	NB L	50+	--	0	5[3]	--	0	15[3]

Background = No-Build scenario; Projected = Build scenario
[1]Distance to adjacent intersection
[2]Due to unconventional stop control and HCM2010 limitations, this intersection was analyzed utilizing SimTraffic
[3]95th percentile Synchro queue
[4]This intersection was analyzed utilizing SIDRA Intersection 8.0 software for Background and Projected scenarios
[5]Analysis includes NCDOT TIP improvements summarized earlier in this report.

As shown in **Table 10,** adequate queue storage will be provided for the turn lanes in 2025 with construction and full build-out of the proposed development or there will be no discernable change from background to projected conditions. Queue analysis worksheets are included with the capacity analysis worksheets provided in **Appendix D**.

2040 BUILD OUT ANALYSIS WITH TIP IMPROVEMENTS

At the request of NCDOT, TPD performed a Future Year 2040 analysis for the NCDOT planned roundabout at the intersection of the I-26 EB Ramps at Newbridge Parkway. For this analysis, TPD developed traffic projections as follows:

- Future 2040 "no-build" (without Riverside or Altura Developments) volumes were developed by utilizing the 2040 projections developed by AECOM for the anticipated TIP improvements at the I-26 interchange.
- Future 2040 "build" volumes include the future 2040 "no-build" volumes, described above, plus the Altura Residential Development and Riverside Community Development projections.

TPD analyzed the 2040 future year scenario with full build-out of the proposed site and implementation of the anticipated TIP improvements at the I-26 interchange intersections with US 19. The additional analyses were completed only for the proposed TIP roundabout based on based on NCDOT *Congestion Management Capacity Analysis Guidelines*. Capacity and queueing analysis results are summarized in Tables **11** and **12**.

TABLE 11
YEAR 2040 SIDRA ROUNDABOUT ANALYSIS – LEVEL OF SERVICE SUMMARY

Intersection	Movement	2040 Conditions							
		Weekday A.M. Peak Hour				Weekday P.M. Peak Hour			
		Background		Projected		Background		Projected	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Newbridge Parkway & I-26 EB Ramps/US 19 Business	EB L	A	6.9	B	14.1	A	5.4	A	7.7
	EB R								
	NB L(T)	A	9.9	C	18.2	A	9.4	C	21.5
	SB TR	A	8.4	B	10.5	A	5.4	A	9.1
	ILOS	**A**	**9.0**	**B**	**14.9**	**A**	**7.8**	**C**	**16.0**

As shown in **Table 11**, all movements and the overall intersection will operate at acceptable levels of service during year 2040 with implementation of the planned TIP improvement and development of the proposed site. Based on the summarized analysis, this intersection is not anticipated to fail prior to 2040.

TABLE 12
YEAR 2040 SIDRA ROUNDABOUT ANALYSIS – 95TH PERCENTILE QUEUE (FEET) SUMMARY

Intersection	Movement	2040 Conditions			
		Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
		Background	Projected	Background	Projected
Newbridge Parkway & I-26 EB Ramps/US 19 Business	EB L	21	123	23	55
	EB R				
	NB L(T)	161	479	133	679
	SB TR	90	115	37	63

As shown in **Table 12**, projected queue storage lengths are indicated for 2040 with construction and full build-out of the proposed development. As the design plans for the interchange are not yet available, adjustments can be made to ensure adequate storage is provided.

RECOMMENDATIONS

TPD has made the following recommendations in relation to the proposed Altura Residential Development:

Goodman Road & Riverside Drive (SR 02510)

- Evaluate re-alignment of Goodman Road to improve available sight distance

Altura Parkway & Dimora Drive/Driveway

- Provide a stop sign to control exiting traffic on Dimora Drive

Firethorn Drive & Stillview Drive (not studied due to low cul-de-sac volumes)

- The cul-de-sac on the western end of Firethorn Drive only serves one home. Given that Stillview Drive has a steep approach grade and is the main traffic movement, stop compliance is anticipated to be an issue. As such, the stop control should be reversed to provide stop control on the Firethorn Drive approaches, instead of Stillview Drive.

CONCLUSIONS

Based on the results of the transportation impact study, TPD offers the following conclusions:

- The project site is located east of Riverside Drive, north of Goodman Road. The proposed site will consist of 340 multi-family homes and 100 single-family homes;

- Upon full build-out, the proposed development is expected to generate 229 new vehicle-trips during the weekday A.M. peak hour, and 278 new vehicle-trips during the weekday P.M. peak hour;

- Access to the site is proposed via two existing driveways: one access to Goodman Road and one full-access driveway to Altura Parkway. In addition, an internal connection between the Altura Residential Development and the proposed Riverside Community Development will provide additional access to Riverside Drive;

- Under the 2022 and 2025 projected conditions, with implementation of the site-related recommendations, all approaches and turning movements at the site driveway intersections with the external roadway network will operate at LOS B or better during weekday A.M. and P.M. peak hours;

- Under 2022 projected conditions, all study area intersection movements will operate at the same LOS as under background (no-build) conditions or fall within NCDOT's allowable 25% delay increase between background (no-build) and projected (build) condition scenarios with the exception of the future I-26 WB Ramps/US 19 Business intersection during the P.M. peak hour which will be mitigated under 2025 conditions with implementation of the NCDOT planned interchange improvements;

- Under 2025 projected (full-build) conditions, with implementation of NCDOT programmed improvements and improvements identified as part of this study, all study area intersection movements will operate at the same LOS under projected (build) conditions as under background (no-build) conditions or will fall within NCDOT's allowable 25% delay increase between background (no-build) and projected (build) condition scenarios. However, the Future I-26 EB Ramps (US 19 Bus) & Newbridge Parkway roundabout is expected to operate at ILOS B during the A.M. peak hour with a 31 percent increase in overall delay and during the P.M. peak hour with a 44 percent increase overall. Additional mitigation or improvements are not recommended at this time.

- SIDRA roundabout analysis completed for the Future I-26 EB Ramps (US 19 Bus) & Newbridge Parkway intersection utilizing Year 2040 based projections developed for the TIP I-26 improvement project indicate acceptable operations and no approach failures.

Altura Riverside Development

TIA SCOPING REVIEW

BULLET LIST OF CONGESTION MGMT. COMMENTS AND CONCERNS (SC-2023-242)

March 12, 2025

The Congestion Management Section (CMS) has performed a review of the scoping document for the proposed Altura Riverside Development prepared by McAdams (received March 11, 2025). According to the document, the proposed development is to be located in the northwest quadrant of Altura Pkwy and Dimora Dr east of NC 251 (Riverside Dr) in Woodfin, Buncombe County. The scoping document states that the full build-out of the development is to be constructed by 2031 and is to consist of residential land use generating 2,520 unadjusted daily trips. Based on our review, we have the following comments at this time:

Trip Generation

- The trip generation appears reasonable.

Trip Distribution and Growth Rate

- Trip distribution appears reasonable; however, we defer to the District office and local authorities for the final trip distribution.
- Growth factor of 2 percent appears too high based on AADT growth trends in this area, particularly on the eastern side of the study area; it is suggested to rather use a 0-1 percent growth factor.

Study Intersections

- Study intersections appear reasonable.

Site Plan and Proposed Driveways

- Site plan appears reasonable and appears to match with the trip generation.
- Please ensure that the proposed driveway(s) are in accordance with the NCDOT Driveway Manual and Internal Protected Stem lengths are provided with the TIA.

NOTE: This list should not be considered all-inclusive. Further review may identify additional areas of concern.

Est. 1989
TRAFFIC PLANNING AND DESIGN, INC.

WWW.TRAFFICPD.COM

Memorandum

To: Christopher D. Medlin, PE
NCDOT Division 13, District 2

From: Colin Kinton, PE
Traffic Planning and Design, Inc. (TPD)

cc: Dan Mason
St. Bourke Development

Date: March 6, 2020

Re: Altura Residential Development
Sensitivity Analysis: I-26 Westbound Off Ramp Left Turn Lane to US-19 Business
Buncombe County, NC
TPD# STBD.00001

Purpose of Sensitivity Analysis

The Traffic Impact Analysis (TIA) completed for the Altura Residential Development (SC 2018-146) completed November 1, 2019 indicated that the I-26 Off Ramp approach to US-19 Business will experience delay increases exceeding 25 percent at build-out during the PM Peak Hour. Per NCDOT guidelines, delays greater than 25 percent increase necessitate mitigation. The mitigation identified to improve operations at this intersection is to lengthen the existing left turn lane on the I-26 Off Ramp approach to accommodate the increased queue length.

In order to better define the development's impacts over a phased construction schedule, a sensitivity analysis has been completed for the proposed development. The purpose would be to determine the point when turning volumes do not exceed the 25 percent delay increase that would necessitate the need for geometric improvement. This would allow the project to move forward while the improvements are phased and constructed to be in place when necessary.

Analysis Results

Based on the TIA results, the site impacts during the AM Peak Hour did not exceed the 25percent threshold for the site build conditions; therefore, only PM Peak Hour was included in this analysis. During the PM Peak Hour, the proposed development is anticipated to add 70 left turns to the I-26 Off Ramp turning left onto US-19 Business.

The results of this sensitivity analysis determined that an initial Phase 1 of the development can build out to a level that will generate up to 50 percent of the full buildout trip generation. At 50 percent of the trip generation, the site will have only 24.7 percent increase in delay during the PM Peak Hour, which is within the NCDOT allowable limits. The Level-of-Service Delay Summary is indicated in **Table 1** with the Synchro output attached.

TABLE 1

LEVEL-OF-SERVICE DELAY (SECONDS) SUMMARY

Intersection	Movement	Weekday A.M. Peak Hour									
		Existing Condition		2022 Conditions							
				Background		Projected		%	50% Phase 1		%
		LOS	Delay	LOS	Delay	LOS	Delay	Change	LOS	Delay	Change
I-26 WB Ramp & US-19 Business	NB L	C	14	C	17	D	27.6	62%	C	21.2	24.7%

At 50 percent of the full build out trip generation, the site will generate 144 PM Peak Hour trips (91 entering / 53 exiting). Utilizing the NCDOT approved trip distribution, the proposed Phase 1 development will result in the addition of 36 left turns exiting WB I-26 onto US-19 Business during the PM Peak Hour. **Figure 14** illustrates the Phase 1 PM peak hour site trips. **Figure 20** illustrates the proposed Phase 1 projected traffic volumes in Year 2020.

With a planned combination of both single-family homes and townhomes, an iterative evaluation was completed in order to determine the number of units of each type that would result in a 50 percent trip generation reduction. The following **Table 2** summarizes the maximum number of dwelling units that can be built prior to meeting this 50 percent trip generation threshold.

TABLE 2

PHASE 1 TRIP GENERATION SUMMARY

Time Period	Land Use	Size	Altura Residential Development		
			Total	Enter	Exit
P.M. Peak Hour	Single-Family	60 du	62	39	23
	Multi-Family (Low Rise)	145 du	82	52	30
	Total	**205 du**	**144**	**91**	**53**

RECOMMENDATIONS

TPD has made the following Phase 1 development recommendations based on the results of the above sensitivity analysis completed for the proposed Altura Residential Development.

I-26 Westbound Off Ramp and US-19 Business

Phase 1 Construction - Prior to left turn lane extension: Maximum of 60 single-family homes and 145 multi-family homes.

Phase 2 Construction – Allowed after left turn lane extension: Full site build out would be permitted for development after construction of the NCDOT required left turn lane improvement.

If you have any questions or comments related to this analysis, please contact Colin Kinton, at ckinton@trafficpd.com.

Attachments: Synchro Analysis Results
Traffic Volume Figures

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	238	0	0	426	335	92	4	360	0	0	0
Future Vol, veh/h	60	238	0	0	426	335	92	4	360	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	-4	-	-	2	-	-	-6	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	264	0	0	473	372	102	4	400	0	0	0

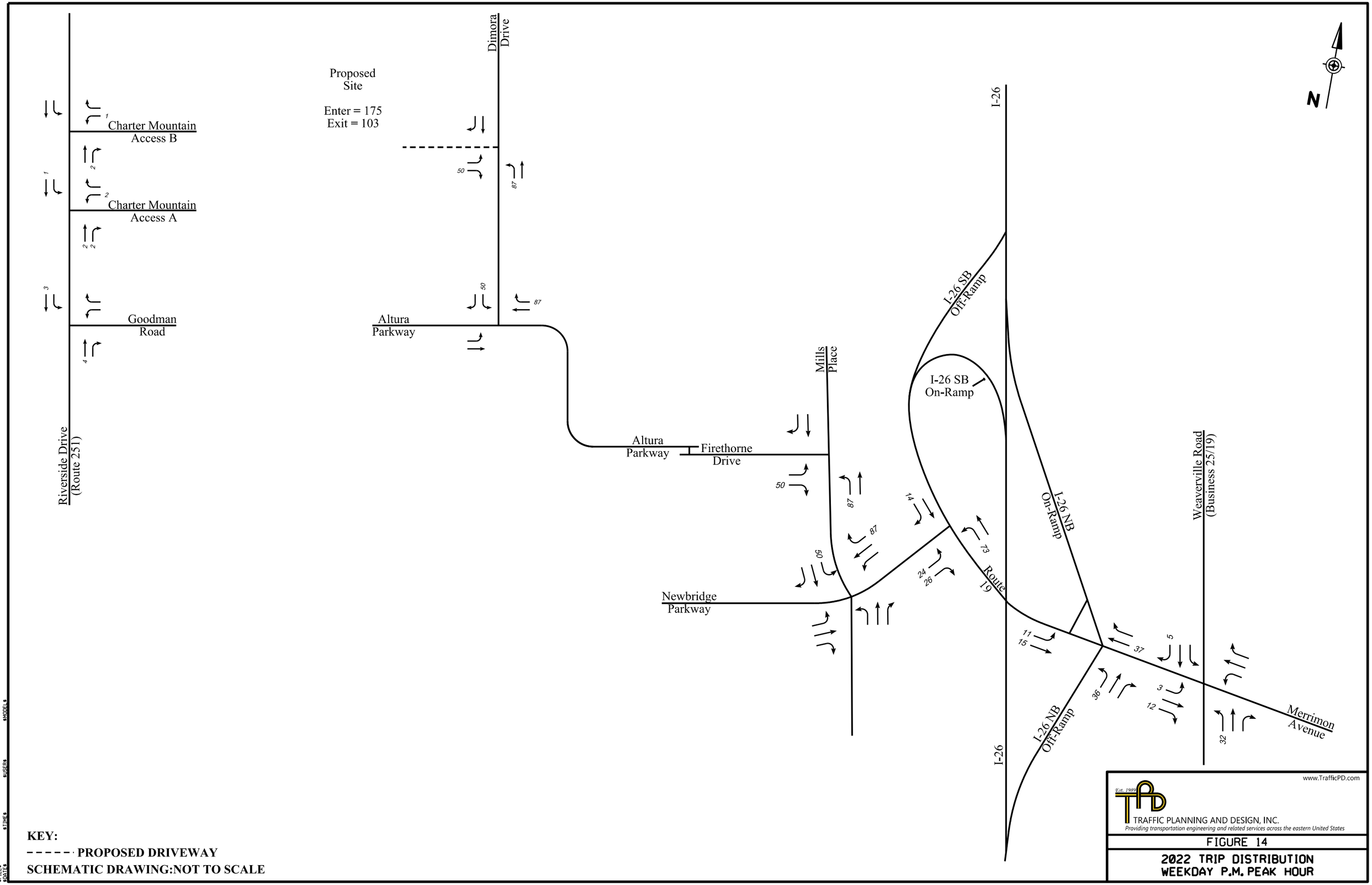
Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	845	0	-	-	-	0	1057	1243	264
Stage 1	-	-	-	-	-	-	398	398	-
Stage 2	-	-	-	-	-	-	659	845	-
Critical Hdwy	4.12	-	-	-	-	-	5.22	5.32	5.62
Critical Hdwy Stg 1	-	-	-	-	-	-	4.22	4.32	-
Critical Hdwy Stg 2	-	-	-	-	-	-	4.22	4.32	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	792	-	0	0	-	-	354	264	809
Stage 1	-	-	0	0	-	-	775	688	-
Stage 2	-	-	0	0	-	-	641	502	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	792	-	-	-	-	-	324	0	809
Mov Cap-2 Maneuver	-	-	-	-	-	-	324	0	-
Stage 1	-	-	-	-	-	-	709	0	-
Stage 2	-	-	-	-	-	-	641	0	-

Approach	EB	WB	NB
HCM Control Delay, s	2	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	324	809	792	-	-	-
HCM Lane V/C Ratio	0.316	0.5	0.084	-	-	-
HCM Control Delay (s)	21.2	13.8	10	-	-	-
HCM Lane LOS	C	B	A	-	-	-
HCM 95th %tile Q(veh)	1.3	2.8	0.3	-	-	-

Intersection: 5: I-26 NB Off-Ramp/I-29 NB On-Ramp & Route 19

Movement	EB	EB	WB	NB	NB
Directions Served	L	T	TR	L	TR
Maximum Queue (ft)	68	101	87	162	603
Average Queue (ft)	22	28	5	64	249
95th Queue (ft)	51	76	32	120	454
Link Distance (ft)		295	91	698	698
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)	200				
Storage Blk Time (%)					
Queuing Penalty (veh)					



KEY:

- - - - - PROPOSED DRIVEWAY

SCHEMATIC DRAWING:NOT TO SCALE

$FILE$ $DATE$ $TIME$ $USER$ $MODEL$

www.TrafficPD.com

Est. 1989

TRAFFIC PLANNING AND DESIGN, INC.

Providing transportation engineering and related services across the eastern United States

FIGURE 14

2022 TRIP DISTRIBUTION
WEEKDAY P.M. PEAK HOUR

Charter Mountain Access C

Charter Mountain Access B

Charter Mountain Access A

Goodman Road

Riverside Drive (Route 251)

Proposed Site

Dimora Drive

Altura Parkway

Altura Parkway

Firethorne Drive

Newbridge Parkway

Mills Place

I-26

I-26 SB Off-Ramp

I-26 SB On-Ramp

I-26 NB On-Ramp

Route 19

I-26 NB Off-Ramp

Weaverville Road (Business 25/19)

Merrimon Avenue

N

KEY:

- - - - - PROPOSED DRIVEWAY

SCHEMATIC DRAWING:NOT TO SCALE

$FILE$ $DATE$ $TIME$ $USER$ $MODEL$

www.TrafficPD.com

Est. 1989

TRAFFIC PLANNING AND DESIGN, INC.

Providing transportation engineering and related services across the eastern United States

FIGURE 20

2022 PROJECTED CONDITIONS WEEKDAY P.M. PEAK HOUR TRAFFIC VOLUMES

PIN Roster – Additional Buncombe County Tax Record Parcel Identification Numbers

PINs for Altura CZ
973121966700000
973132564200000
973132551200000
973039959400000
973131918600000
973131063800000
973121742500000
973121427400000
973132448300000
973132437300000
973132425300000
973121977000000
973132414300000
973132509500000
973132404300000
973121853900000
973131495300000
973121863300000
973121863600000
973131586500000
973131484400000
973121874000000
973121962900000
973121875300000
973121973200000
973121876600000
973121974600000
973131379600000
973121978400000
973121887000000
973131467600000
973121975900000
973121888300000
973121986200000
973131363600000
973121889600000
973121987500000
973121988800000

973121999200000
973039959900000
973131074200000
973121741200000
973121523700000
973131534700000
973131527500000
973039865300000
973131810900000
973131070700000
973131519900000
973131710900000
973049060400000
973131076700000
973121730800000
973121539000000
973131703300000
973039865800000
973131081000000
973049060900000
973131933500000
973131087100000
973039943200000
973039876300000
973131082400000
973049071400000
973131089600000
973039876800000
973131083700000
973049072900000
973131190100000
973039887200000
973131094000000
973049082400000
973131858000000
973121645000000
973039887700000
973131095300000
973049083800000

973121647300000
973039898100000
973131642800000
973049094300000
973121648600000
973121957000000
973121851700000
973039898600000
973049094800000
973121659000000
973130809000000
973140005300000
973131867800000
973121751200000
973130809500000
973131569700000
973121752600000
973131173000000
973121754900000
973121766200000
973131886800000
973121767500000
973131685500000
973121768800000
973121779200000
973140038200000
973121870500000
973130938600000
973140038700000
973132808500000
973121871800000
973130999100000
973121958400000
973121757400000
973039948300000
973132608400000
973140047200000
973121882100000
973130947200000

PIN Roster – Additional Buncombe County Tax Record Parcel Identification Numbers

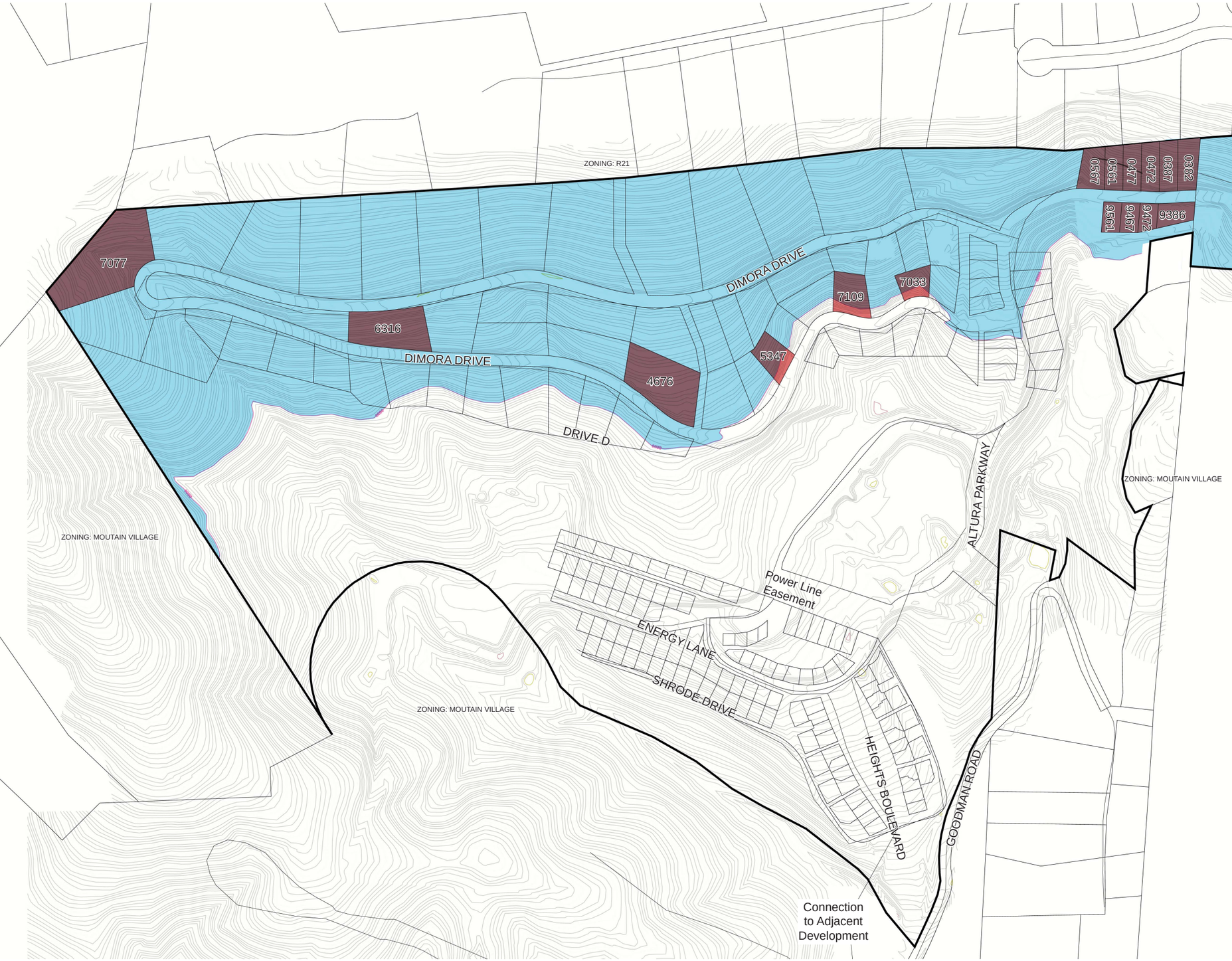
973140047700000
973121884400000
973130946700000
973140056100000
973132825100000
973130956100000
973132623000000
973140056700000
973121964100000
973132833600000
973132631600000
973132577300000
973132852200000
973131050900000
973121755100000
973130777100000
973130772100000
973130689300000
973132862800000
973130685200000
973130664900000
973039845900000
973121965400000
973130660800000

973130576900000
973130566700000
973130571800000
973132884700000
973130562700000
973130477900000
973133707700000
973133612000000
973039949900000
973131061300000
973121743800000
973121422100000
973132596100000
973132589200000
973132667700000
973131106600000
973121702600000
973121718200000
973121501000000
973121508200000
973121605500000
973121636200000
973121700800000
973121716500000

973121414800000
973121428000000
973121506600000
973121526400000
973121604900000
973121628800000
973121318300000
973121403200000
973121405300000
973121408400000
973121410500000
973121412600000
973121501500000
973121508700000
973121521100000
973121524200000
973121601800000
973121618100000
973121620500000
973121623600000
973121625700000
973121710300000
973121712400000

STEEP SLOPE AREA (Above 2200' & 20% slope)

UNDEVELOPMENT EXISTING PLATTED PARCELS



LAST 4# PIN	ALLOW DIST.	ALLOW IMP.
7077	.30	.16
6316	.30	.16
4676	.30	.16
5347	.17	.09
7109	.21	.11
7033	.13	.07
9561	.08	.04
9467	.08	.04
9472	.07	.04
9386	.12	.06
0567	.13	.07
0561	.09	.05
0477	.09	.05
0472	.09	.05
0387	.08	.04
0382	.08	.04
Total	2.32 AC	1.23 AC

DRIVE		DIST.	IMP.
A (25')	700 LF	.40	.26
B (25')	170 LF	.10	.06
C (30')	2,360 LF	1.63	.87
Total		2.22 AC	1.19 AC

0 60 120 240 360

Scale: 1"=120'

April 30, 2025

North

Altura

Disturbance & Impervious Exhibit

28 Hi Landa Acres
Weaverville, NC 28787
828.545.5989
www.sds-la.com

SITE DESIGN STUDIO

landscape architecture
planning
project management
construction observation

TECHNICAL REVIEW REPORT

DATE: March 19, 2025
PREPARED BY: Ricky Hurley, Planning Director
OWNERS/APPLICANT: Stars & Stripes, LLC, Altura Communities, John Cummings, MJS Holdings, et al/Dan Mason
SUBJECT: Conditional Zoning – Altura

PROJECT SUMMARY: A conditional zoning review of a residential mixed-use development for 82 single family homes, 91 townhomes, and 225 multi-family units located at 2 Altura Parkway, 36 and 99999 Goodman Road being PIN's 9731-31-1730, 9731-31-1066, 9730-39-9432, and 230 others(?).

REVIEW NOTES:

- The project site is 77.5 acres located at the intersection Altura Parkway and Goodman Rd.
- Property is currently zoned Mountain Village and is requesting a conditional rezoning to Mountain Village-Conditional Zone (MV-CZ).
- All lots will be served by public water and sewer.
- All roads within the community are proposed to be publicly maintained. Goodman Road is state maintained road, with access from Windwhisper Drive maintained by the Town
- 394 units are proposed with a combination of single family, multi-family, and townhouse units proposed, being 78 single family units, 225 multi-family units, and 91 townhouse units.
- The subdivision was previously platted at various times from 2008
- Any proposed Mountain Village-CZ zoning district setbacks will be regulated by the proposed conditional zoning ordinance. Any proposed?
- There are no minimum lot width, lot size, or structure size standards in the Mountain Village zoning district. Dimensional requirements are set by the proposed conditional zoning.
- The maximum height of all structures shall be limited to 35', as noted in the Draft Exhibit D.
- Multiple stormwater ponds are proposed and will require a separate stormwater permit to be reviewed and issued by the Town of Woodfin.
- Noted the overall reduction in single family lots. For townhouses, will the number of lots/ units be the same, less/more?

PLANNING:
Changes required to plans:

- Provide a detailed landscape plan or provide a statement as the intent to comply. Street trees will be required along all streets within the proposed subdivision. Street trees are required at a rate of one tree for every 40 linear feet of road with a 10' wide, undisturbed, planting zone unless modified in Exhibit D - Conditions.
- Provide calculations for density, land disturbance, and impervious area for the area above 2,200 feet in elevation and subject to Steep Slope as well as the remainder of the site.
- Provide open space calculations. Recreational open space is required at a rate of 500 square feet per residence, resulting in a total requirement of 199,000 square feet or approximately 4.6 acres. *Note: Exhibit D conditions associated with the rezoning may hold the project to a higher standard.*
- Provide justification for any modification related to sidewalks, greenways, and trails. Pedestrian connectivity (sidewalks/trails) are required in Mountain Village. Please evaluate and explain the lack of sidewalks along Goodman Road frontage. The Charter Mountain development will be connecting a trail near the entrance to this project Significant development is expected in this area and connectivity to future development will be important. Areas along Altura Parkway, multi-family, and townhouses should have sidewalks at a minimum.
- Confirm with the Buncombe County fire marshal the proposed road layout and access.
- Indicate the maintenance for all proposed streets. Recommend that a maintenance agreement be included in the POA documents for smaller access streets which are likely to remain private.
- Does Altura Communities represent ALL property owners listed on the ownership parcel sheet? Or is the application only for those properties owned by Stars & Stripes and Altura Communities? A narrative would clarify this as well as the general scope of the proposal.
- A sheet or exhibit showing properties specifically excluded from the request besides listing as "owned by others".
- The applicant is requesting a modification to the Steep Slope standards to reallocate the allowed disturbance and impervious surface area from 13 individual lots within the Steep Slope for the purpose of constructing a one-way access drive behind the uppermost lots. This was discussed but not clarified in the plan documents.

Requirements to be noted (no change required to plans):

- If the rezoning plan anticipates phasing of the project. Applicant will be required to provide a preliminary subdivision plat for each phase and follow the processes outlined in *Chapter 46 Subdivision* of the Town of Woodfin Code of Ordinances. The conditional zoning process for this project is conceptual in design.
- The Building and Grading & Erosion Control permits are reviewed and issued by Buncombe County.
- Connection to Goodman Road will require a driveway permit and reviewed/issued by the NCDOT.

EMERGENCY ADDRESSES:

Addresses and street names will be assigned by the Buncombe County E-911 Address Coordinator prior to issuance of any individual single-family permits. Applicant is advised to submit early in the development review process.

ROADS/ACCESS/LIGHTING:

- One connection to Goodman Road and Windwhisper Drive are planned with a stub street to the adjacent Charter Mountain development located to the west of the project. Clarify if streets shown to be public/private or combination of maintenance?.
- No lighting plan was provided and will be required prior to issuance of a zoning compliance permit. Commercial buildings and street lighting must comply with Chapter 26-Lighting.
- Will NCDOT require an updated TIA??

To ensure this development will meet the current NC Fire Code, I will need several other additions to this.

- A road profile showing grades and widths. Two access points to the multi-family apartments must meet aerial fire apparatus standards of 26 feet in width.
- The road grades and profiles must meet Chapter 5 and Appendix D of the 2018 NC Fire Code.
- Proof of adequate water, meeting the fire flow requirements and domestic demand. This will include any proposed additions of pump stations and tanks.
- No drive to any structure may be more than 600 feet from a fire hydrant.
- Please let them know this must be submitted prior to any fire code approval.

UTILITIES:

City of Asheville Water had previously issued two different allocations serve the development although both of these have since expired. A new allocation is required from either Woodfin Water or Asheville Water.

> We had issued an allocation for the project on 2 different occasions but all are expired. No application to renew has been received. Don't know the issues that Woodfin W&S would have serving the development but it appears they have existing infrastructure closer to this development then we do.
>
> COA WRD does have issues with providing service to this development. They had originally proposed extension from our existing line off Windwhisper but it cannot fully support the development without negative impacts to existing customers. So they were being required to extend down from our line on Riverside, near the old landfill entrance and connect the water all the way through to Windwhisper. It made more sense for them to do that in the last iteration because they had a pocket development closer to the end of the line on Riverside that did not connect to the part further south so they had to extend down some anyway to get water service into that pocket. That pocket is not included with this most recent concept so not sure of the willingness to make the extension from Riverside Dr.
>
> Summary, we will not approve their allocation unless they commit to the off site extension down riverside and loop the waterline to the end of our existing on Windwhisper.

Metropolitan Sewerage District will provide sanitary sewer to the project. Provide MSD allocation letter.

SW/EC/FLOOD:

The respective permit applications shall be reviewed and approved by Buncombe County prior to any construction or land disturbance occurring. A Town of Woodfin Storm Water review and permit will be required prior to issuance of the zoning compliance permit by the Town. Are there any intermittent or perennial streams?

RECOMMENDATION FROM
TOWN OF WOODFIN PLANNING BOARD
OF ADJUSTMENT TO
WOODFIN TOWN COUNCIL

Having reviewed the **Zoning Map Amendment** to rezone properties at 36 Goodman Road (PINs 9731-31-1730, 9730-39-9432, 9731-31-1066, 9731-21-7026, with additional PINS listed in PIN Roster) from MV Mountain Village and Residential District R-21 to Mountain Village MV-CZ on **June 3, 2025**, and having considered information from planning staff of the Town of Woodfin and comments from the other persons, pursuant to 160D-604(d), the Town of Woodfin Planning Board of Adjustment hereby adopts the following motion, effective June 3, 2025:

The Town of Woodfin Planning Board of Adjustment recommends approval of the proposed map amendment and finds that it is reasonable, in the public interest, and consistent with the Woodfin Together Comprehensive Plan in that the proposed rezoning will:

1. Use the Future Land Use Map to guide development decisions and connect existing and future activity centers with multimodal transportation for all users. (1.1.1 & 1.1.3)
2. Promote an integrated mix of housing types and affordability options while connecting existing and future activity centers with well-designed multimodal transportation connections. (1.1.2 & 1.1.3)
3. Extend or improve infrastructure needed to support residents and sustainable growth while promoting long-term fiscal responsibility by growth in areas with existing services. (1.1.8 & 1.2.6)
4. Protect environmentally sensitive areas such as floodplains, wetlands, and areas adjacent to streams and creeks while also encouraging accessibility to green spaces. (5.1.1 & 5.1.2)

Vote:

Ayes/No

This document is a true and accurate statement of the findings and recommendations of the Woodfin Planning Board of Adjustment.

_____ _____

Chair Date

STAFF REPORT

To: Planning Board of Adjustment

Agenda Title: Major Subdivision—Riverside Drive Subdivision

Presenter: Ricky Hurley, AICP

Meeting Date: June 3, 2025

Summary:

An administrative (ministerial) review for a 13-lot major subdivision located on three parcels totaling 2.84 acres. The site is currently vacant and located at 99999 Old Marshall Highway, being identified in the Buncombe County tax record as PINs 9731-05-8955, 9731-06-7164, and 9731-06-6324.

Background/Site Context:

The applicant is requesting preliminary subdivision plan approval as part of an administrative review for a major subdivision. Administrative (ministerial) reviews conducted by the Planning Board of Adjustment must be approved when the applicant demonstrates they have complied with all technical standards found within Chapter 46 Subdivision and Chapter 54 Zoning codes. Although review of the application occurs as part of a public meeting, the Board may not require a public hearing or solicit public comment as part of their review when determining compliance with the Woodfin Town Code. The subject properties are currently vacant and covered in woodlands with elevations of 2,055 feet to 2,110 feet, that gradually slope from Riverside Drive towards a small creek along the northeastern property line. The project is not subject to Steep Slope regulations since the elevation is less than 2,200 feet. The Town of Woodfin Chapter 46 Subdivision, Article III Subdivision Plats, will require a preliminary subdivision plat review by this board.

Major subdivisions are divisions of land in which five or more lots are created for the purposes of development. Additionally, any previous development within 1,500 feet of this property is also considered for determining the threshold for review. A minor subdivision creating three lots was reviewed and subsequently recorded on July 15, 2024, and is now incorporated into the current application for further division.

Staff Analysis:

The proposed development is located along Riverside Drive, with most of the surrounding properties being developed for detached single-family homes and undeveloped land. A total of 13 detached single-family units on individual lots are planned. Zoning classifications for the development and adjacent

properties to the east of site are Mountain Village District, Heavy Industrial District to the west across Riverside Drive, and Buncombe County R-3 Residential District to the north and south.

Riverside Drive will provide the principal means of access to the development by way of shared driveways. The development will be served by the City of Asheville public water and MSD sewer services.

Each lot will be served by an individual stormwater device as required to comply with the Town's adopted stormwater ordinance.

The developer is providing approximately 0.5 acres of open space which includes the required 30-foot stream buffer, represents approximately 17% of the project area and exceeds the required open space for the Mountain Village zoning district. The Mountain Village zoning district does not specify a minimum lot size, width, or setbacks.

Considerations:

- The proposed development is allowed as a "use by right" within the Mountain Village zoning district for up to 19 dwelling units/lots.
- The area is a mixture of on-site and manufactured single family dwellings.

Woodfin Together/Future Land Use:

The comprehensive plan's Future Land Use Map (FLUM) designates this parcel as a Residential 1 land use, with primary land uses being small-scale single family and duplexes, manufactured homes, and existing multifamily. These areas are generally older, historic, in-town neighborhoods with a variety of modest single-family housing types. Most neighborhood streets and street rights-of way are relatively narrow and do not have sidewalks. Steps should be taken to minimize gentrification and displacement, while also offering opportunities for infill housing. The Conceptual Growth Framework map also identifies this area as part of a larger Mixed Residential area.

Staff Recommendation:

Having demonstrated compliance with the town's development standards, staff recommends approval of the Riverside Drive preliminary plat.

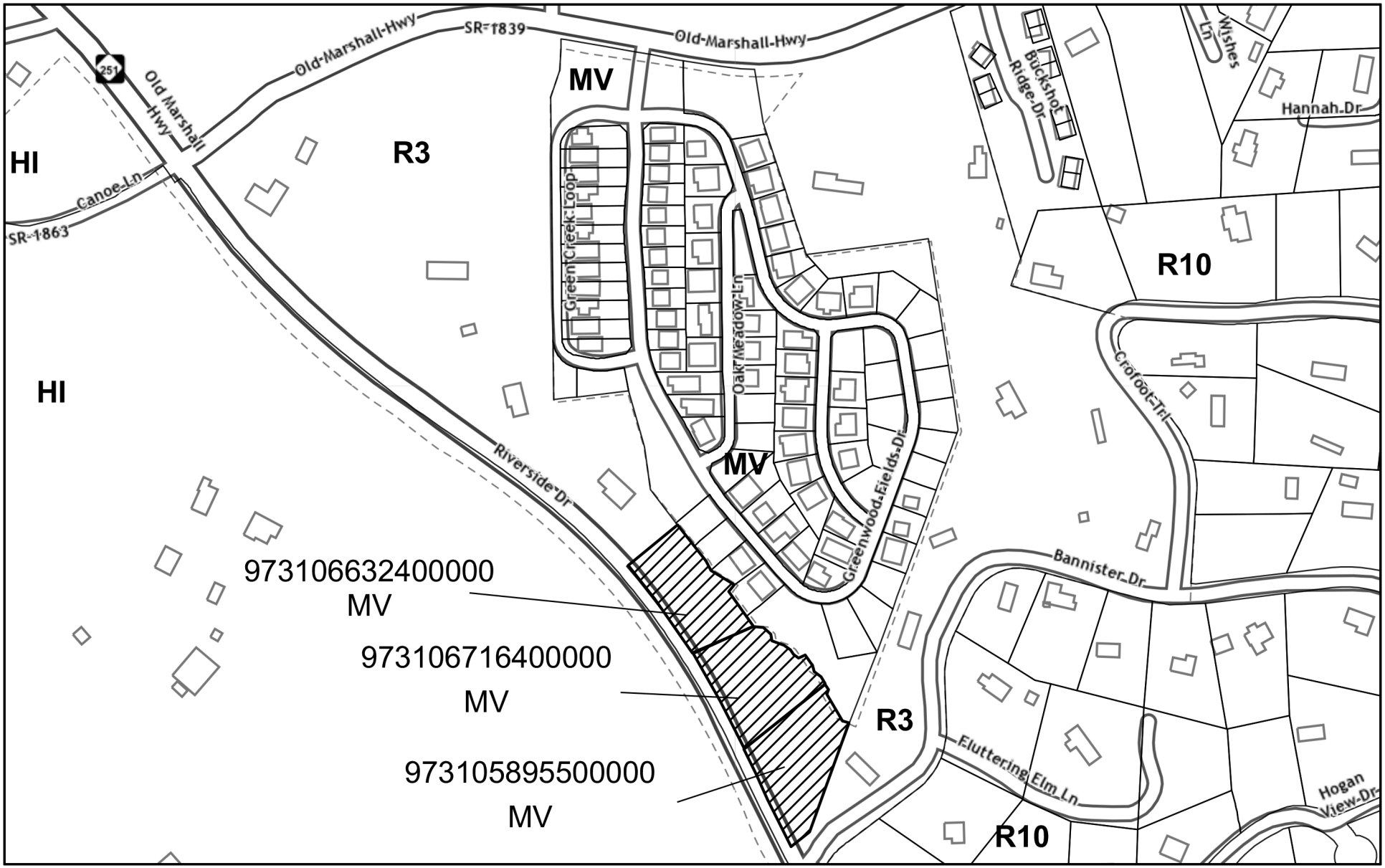
Suggested Motion:

I move to approve the preliminary plat for the Riverside Drive Subdivision as shown on Preliminary Plat and find that it complies with all applicable technical standards.

Attachments:

(1) Zoning Map
(2) Existing Conditions/Aerial Map
(3) Future Land Use Map
(4) Preliminary Subdivision Plan

Exhibit A - Zoning Map



4/29/2025

Woodfin Parcels - MV, HI, R-10

Buncombe County Parcels - R3

Subject Parcels

1:4,514

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

NCDOT GIS Unit, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, NC Center for



4/29/2025

1:4,514

0 0.03 0.07 0.13 mi

0 0.05 0.1 0.2 km

Woodfin Parcels

World Imagery

Low Resolution 15m Imagery

High Resolution 60cm Imagery

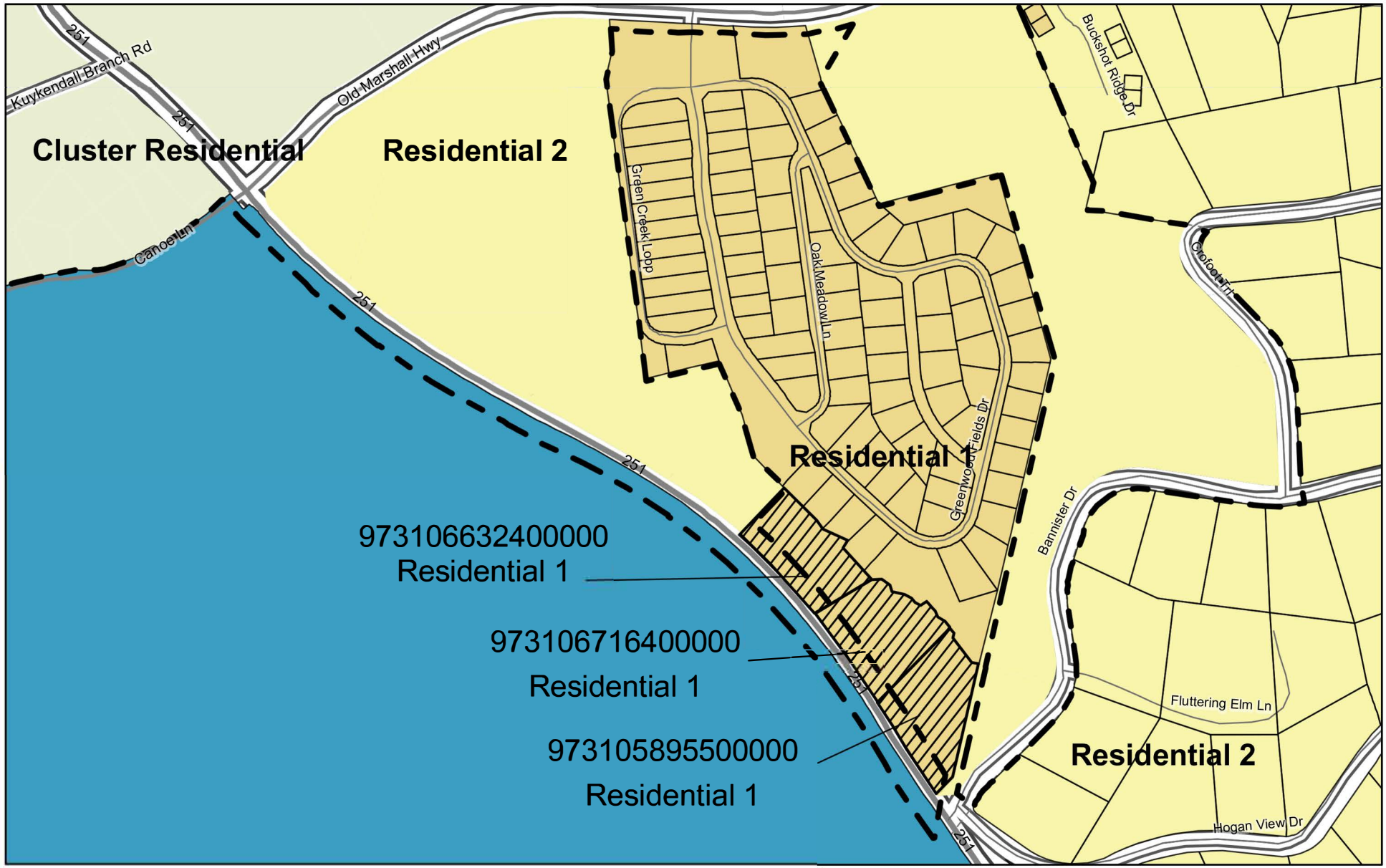
High Resolution 30cm Imagery

Citations

1.2m Resolution Metadata

NC CGIA, Maxar, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, NC Center for

Exhibit B - FLUM Map



4/29/2025

Woodfin Parcels
Town of Woodfin PlanningArea

Institutional
Residential 1
Cluster Residential
Residential 2

1:4,514

0 0.03 0.07 0.13 mi
0 0.05 0.1 0.2 km

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, NC Center for Geographic

LINE	BEARING	DISTANCE
L1	S 52°28'21" W	32.78'
L2	S 52°28'21" W	19.98'
L3	N 23°54'58" W	22.54'
L4	N 26°52'01" W	100.10'
L5	N 31°03'12" W	99.93'
L6	N 34°21'12" W	99.89'
L7	N 38°40'17" W	73.39'
L8	S 36°40'11" E	100.45'
L9	S 25°52'04" E	24.77'
L10	S 55°24'15" E	60.63'
L11	S 41°25'18" W	18.68'
L12	S 33°53'06" E	95.36'
L13	S 83°02'08" E	20.93'
L14	S 43°51'36" E	21.43'
L15	S 09°00'58" E	15.34'
L16	S 68°31'48" E	29.81'
L17	S 52°48'45" E	17.63'
L18	S 30°41'31" E	12.93'
L19	S 52°02'29" E	12.59'
L20	N 67°00'08" E	16.62'
L21	S 31°40'45" E	28.40'
L22	S 15°14'33" E	13.98'
L23	S 51°32'22" E	18.02'
L24	S 28°07'44" E	34.05'
L25	S 25°08'15" W	10.88'
L26	S 28°13'57" E	69.61'
L27	S 64°47'02" E	14.18'

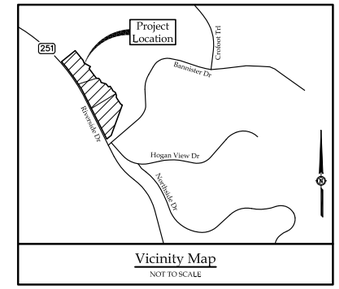
LINE LOT DATA		
LINE	BEARING	DISTANCE
L1	N 75°-38'-16" W	7.23'
L2	N 41°-49'-39" W	56.89'
L3	N 41°-56'-13" E	12.13'
L4	N 37°-04'-46" W	19.86'
L5	N 49°-35'-51" W	22.60'
L6	N 6°-02'-35" E	22.47'
L7A	N 26°-49'-51" W	11.92'
L7B	N 26°-49'-51" W	0.59'
L8	N 60°-56'-46" W	8.35'
L9	N 55°-35'-33" W	23.09'
L10	N 7°-36'-20" W	14.58'
L11	S 87°-37'-27" W	3.61'
L12A	N 64°-05'-14" W	6.17'
L12B	N 64°-05'-14" W	13.86'
L13	N 41°-09'-59" W	22.13'
L14	N 25°-48'-50" W	8.11'
L15	N 56°-49'-58" W	4.38'
L16A	N 82°-08'-38" W	5.59'
L16B	N 82°-08'-38" W	13.68'
L17	N 55°-39'-14" W	17.05'
L18	N 36°-46'-16" W	22.71'
L19A	N 2°-49'-40" E	2.57'
L19B	N 2°-49'-40" E	3.60'
L20	N 79°-57'-26" W	23.22'
L21A	N 33°-36'-51" W	20.87'
L21B	N 33°-36'-51" W	7.42'
L22	N 10°-22'-23" W	17.97'
L23	N 30°-45'-49" W	14.97'
L24	N 35°-32'-18" W	4.99'
L25	N 57°-44'-57" W	10.70'
L26A	N 45°-09'-59" W	1.36'
L26B	N 45°-09'-59" W	33.61'
L27A	N 3°-01'-44" W	21.08'
L27B	N 3°-01'-44" W	2.81'
L28	N 66°-31'-09" W	1.65'
L29	N 52°-11'-04" W	35.87'
L30A	N 27°-29'-35" W	21.33'
L30B	N 27°-29'-35" W	7.05'
L31A	N 42°-00'-09" W	43.24'
L31B	N 42°-00'-09" W	1.92'
L32	N 32°-08'-04" W	26.78'
L33	N 26°-37'-25" W	12.47'
L34	N 34°-14'-37" W	16.11'

LOT INFORMATION

LOT	AREA (SF)	AREA (AC)
1	13,079.73	0.30
2	10,292.49	0.24
3	9,897.39	0.23
4	9,753.58	0.22
5	9,368.38	0.22
6	8,319.53	0.19
7	6,950.53	0.16
8	6,441.44	0.15
9	6,097.22	0.14
10	5,530.02	0.13
11	5,911.93	0.14
12	5,285.25	0.12
13	5,753.06	0.13
14 (OPEN SPACE)	11,462.62	0.26
15 (OPEN SPACE)	9,711.03	0.22

BUFFER NOTE:
LANDSCAPING BUFFER, 15' IN WIDTH, SHALL INCLUDE EASEMENTS FOR ACCESS THROUGH PRIVATE PROPERTY FOR FUTURE HOA MAINTENANCE PURPOSES.

DRIVEWAY NOTE:
SIGHT DISTANCE REQUIREMENT FOR SHARED DRIVE AT LOT 1/2 ALONG RIVERSIDE DRIVE IS 425'. SIGHT DISTANCE PROVIDED IS 425'.



Vicinity Map
NOT TO SCALE

DEVELOPMENT DATA BLOCK

OWNER/DEVELOPER:	BLACK TIE GROUP, INC.
CONTACT:	OLEG ROMASHCHUK
PHONE:	828.215.0576
ADDRESS:	5 WOODPECKER RIDGE LANE ASHEVILLE, NC 28806
PIN:	973906963241, 973906976141, 973805958955
PHYSICAL ADDRESS:	RIVERSIDE DRIVE ASHEVILLE, NC. 28804
PROPERTY SIZE:	2.84 AC. (TOTAL)
ZONING DISTRICT:	MOUNTAIN VILLAGE
SETBACKS:	NONE REQUIRED
DENSITY CALCULATIONS:	
MOUNTAIN VILLAGE DENSITY REQUIREMENTS:	8 UNITS PER ACRE, MAXIMUM
TOTAL ALLOWABLE DWELLING UNITS:	TOTAL AREA = 2.84 ACRES 2.84 X 8 = 22.72 ALLOWABLE DENSITY = 23 UNITS
PROPOSED DENSITY:	TOTAL LOTS = 13 13 / 2.84 = 4.6 PROPOSED DENSITY = 4.6 UNITS PER ACRE
PARKING PROVIDED:	2 SPACES PER LOT

Davis CivilSolutions, PA
Site/Infrastructure Engineering/Planning
Mailing: 1 Hillcrest Park, Asheville, North Carolina 28803
828.299.9449 PH • www.daviscivilsolutions.com

THIS DOCUMENT AND THE INFORMATION PROVIDED HEREIN IS COPYRIGHTED CONFIDENTIAL MATERIAL AND IS THE PROPERTY OF DAVIS CIVILSOLUTIONS, P.A., PROVIDED AS AN INSTRUMENT OF SERVICE. THIS DOCUMENT MAY NOT BE USED FOR ANY PURPOSE NOT SPECIFICALLY PROVIDED TO ANY OTHER PARTY, OR USED FOR ANYTHING OTHER THAN THE SPECIFIC PROJECT IDENTIFIED OR REFERRED TO HEREIN, OR USED FOR EXTENSION TO THIS PROJECT, IN PART OR IN WHOLE, WITHOUT THE EXPRESS WRITTEN CONSENT OF DAVIS CIVILSOLUTIONS, P.A.

COPYRIGHT 2025
DAVIS CIVILSOLUTIONS, P.A.
ALL RIGHTS RESERVED

For Review

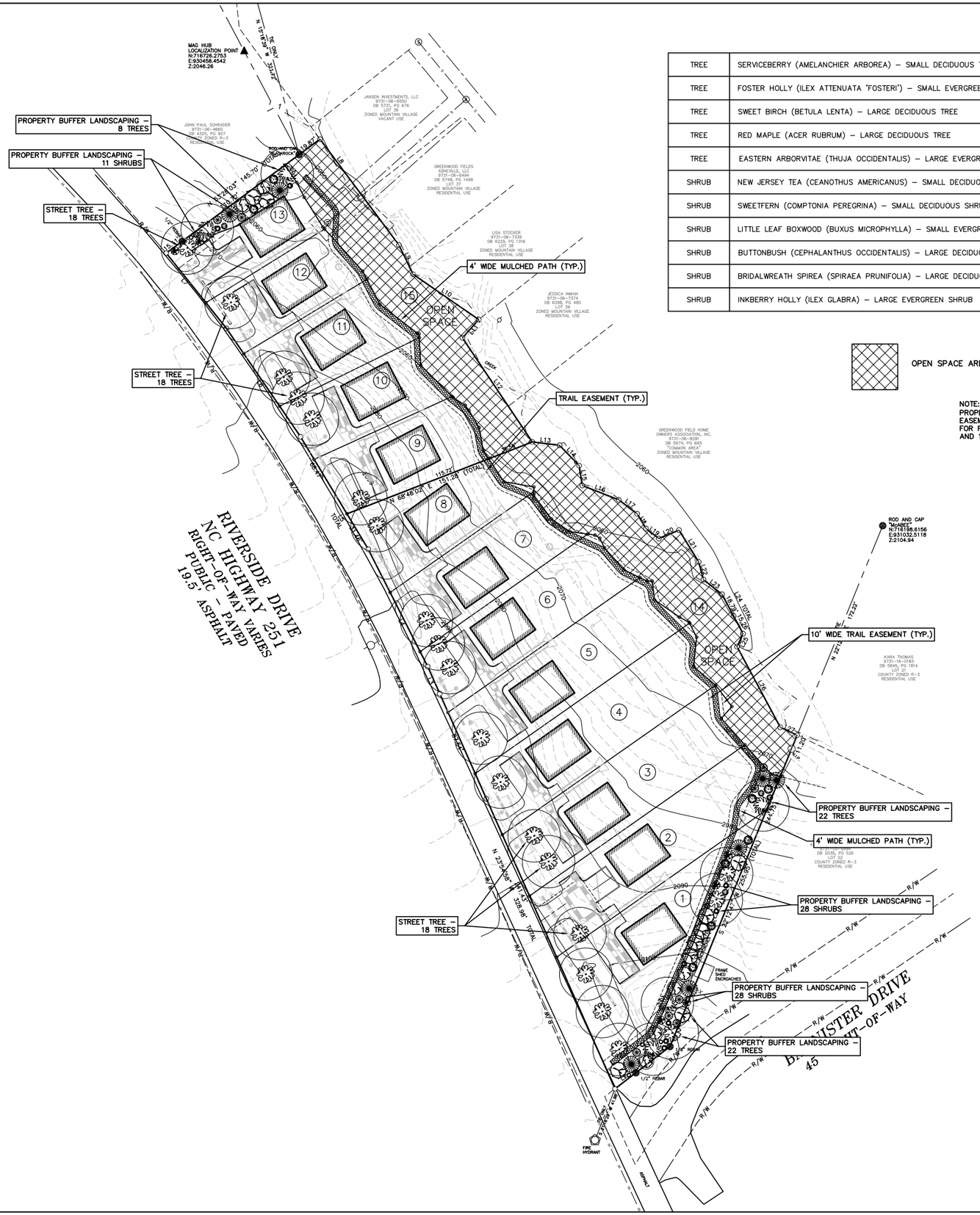
Site Development Plan For
Riverside Drive Subdivision
BUNCOMBE COUNTY, NORTH CAROLINA

Job No.: 23165
Date: May 30, 2025
Scale: 1"=40'
Revision:

Layout

Sheet
C2

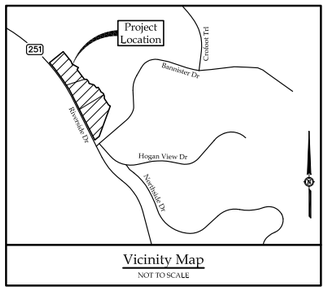
LINE	BEARING	DISTANCE
L1	S 52°28'21" W	32.78'
L2	S 52°28'21" W	19.98'
L3	N 23°54'58" W	22.54'
L4	N 26°52'01" W	100.10'
L5	N 31°03'12" W	99.93'
L6	N 34°21'12" W	99.89'
L7	N 36°40'17" W	73.39'
L8	S 36°40'11" E	100.45'
L9	S 25°52'04" E	24.77'
L10	S 55°24'15" E	60.63'
L11	S 41°25'18" W	18.68'
L12	S 33°53'06" E	95.36'
L13	S 83°02'06" E	20.93'
L14	S 43°51'36" E	21.43'
L15	S 09°00'58" E	15.34'
L16	S 68°31'48" E	29.81'
L17	S 52°48'45" E	17.63'
L18	S 30°41'31" E	12.93'
L19	S 52°02'29" E	12.59'
L20	N 67°00'08" E	16.62'
L21	S 31°40'45" E	28.40'
L22	S 15°14'33" E	13.98'
L23	S 51°32'22" E	18.02'
L24	S 28°07'44" E	34.05'
L25	S 25°08'15" W	10.88'
L26	S 28°13'57" E	69.61'
L27	S 64°47'02" E	14.18'



TREE	SERVICEBERRY (AMELANCHIER ARBOREA) – SMALL DECIDUOUS TREE	
TREE	FOSTER HOLLY (ILEX ATTENUATA 'FOSTERI') – SMALL EVERGREEN TREE	
TREE	SWEET BIRCH (BETULA LENTA) – LARGE DECIDUOUS TREE	
TREE	RED MAPLE (ACER RUBRUM) – LARGE DECIDUOUS TREE	
TREE	EASTERN ARBORVITAE (THUJA OCCIDENTALIS) – LARGE EVERGREEN TREE	
SHRUB	NEW JERSEY TEA (CEANOTHUS AMERICANUS) – SMALL DECIDUOUS SHRUB	
SHRUB	SWEETFERN (COMPTONIA PEREGRINA) – SMALL DECIDUOUS SHRUB	
SHRUB	LITTLE LEAF BOXWOOD (BUXUS MICROPHYLLA) – SMALL EVERGREEN SHRUB	
SHRUB	BUTTONBUSH (CEPHALANTHUS OCCIDENTALIS) – LARGE DECIDUOUS SHRUB	
SHRUB	BRIDALWREATH SPIREA (SPIRAEA PRUNIFOLIA) – LARGE DECIDUOUS SHRUB	
SHRUB	INKBERRY HOLLY (ILEX GLABRA) – LARGE EVERGREEN SHRUB	

OPEN SPACE AREA

NOTE:
PROPERTY BUFFER, 15' IN WIDTH, SHALL INCLUDE EASEMENTS FOR ACCESS THROUGH PRIVATE PROPERTY FOR FUTURE HOA MAINTENANCE PURPOSES, LOTS 1, 2, AND 13.



Vicinity Map
NOT TO SCALE

DEVELOPMENT DATA BLOCK

OWNER/DEVELOPER:	BLACK BE GROUP, INC.
CONTACT:	OLEG ROMASHCHUK
PHONE:	828.215.0576
ADDRESS:	5 WOODPECKER RIDGE LANE ASHEVILLE, NC 28806
PIN:	973906963241, 973906796141, 973805958955
PHYSICAL ADDRESS:	RIVERSIDE DRIVE ASHEVILLE, NC 28804
PROPERTY SIZE:	2.84 AC. (TOTAL)
ZONING DISTRICT:	MOUNTAIN VILLAGE

LANDSCAPING REQUIREMENTS

STREET TREES:
LARGE MATURING
PER 40 LF OF PROPERTY LINE

724.83 LINEAR FEET
724.83 / 40 = 18.1 = 18 TREES

STREET TREE TOTALS:
18 TREES

PROPERTY BUFFER LANDSCAPING

NO LANDSCAPING MATERIAL BASED REQUIREMENT
15' WIDE BUFFER

BUFFER REQUIREMENT:
NORTHERN BOUNDARY LINE
SOUTHERN BOUNDARY LINE

75% OF THE REQUIRED PLANT MATERIAL SHALL BE NATIVE SPECIES.

TOTAL LANDSCAPING REQUIRED

STREET TREES:	PROPERTY BUFFER:
TREES = 18	15' WIDTH

PROPOSED PROPERTY BUFFER LANDSCAPING

2 LARGE TREES, 2 SMALL TREES, 5 SHRUBS
PER 50 LF OF BUFFER REQUIRED

NORTHERN PROPERTY LINE (LESS EXISTING STREAM BUFFER AREA):
112.46 LINEAR FEET
112.46/50 = 2.2
2.2 X 2 = 4.4 = 4 LARGE TREES
2.2 X 2 = 4.4 = 4 SMALL TREES
2.2 X 5 = 11 SHRUBS

SOUTHERN PROPERTY LINE (LESS EXISTING STREAM BUFFER AREA):
274.75 LINEAR FEET
274.75/50 = 5.5
5.5 X 2 = 11 LARGE TREES
5.5 X 2 = 11 SMALL TREES
5.5 X 5 = 27.5 = 28 SHRUBS

TOTAL LANDSCAPING PROVIDED

STREET TREES:	PROPERTY BUFFER:
TREES = 18	TREES = 30 SHRUBS = 39

COMBINED TOTALS
TREES = 48
SHRUBS = 39

OPEN SPACE REQUIREMENTS:

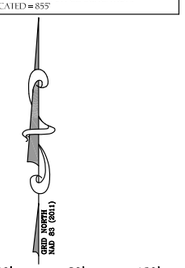
500 SQ. FT. PER DWELLING UNIT

OPEN SPACE REQUIRED:
TOTAL DWELLING UNITS = 13
13 X 500 = 6,500 SQ. FT.

OPEN SPACE PROVIDED:
21,736.5 SQ. FT.

SIDEWALK/TRAIL REQUIREMENTS:

MULCHED TRAIL PROVIDED, SEE PLANS FOR CLARIFICATION.
TOTAL TRAIL LENGTH INDICATED = 855'



0' 40' 80' 120'
GRAPHIC SCALE 1"=40'

Davis CivilSolutions, PA
Site/Infrastructure Engineering/Planning
215-C Merrimon Ave. • Asheville, North Carolina 28801
828.299.9449 PH • www.daviscivilsolutions.com

THIS DOCUMENT AND THE INFORMATION PROVIDED HEREIN IS COPYRIGHTED CONFIDENTIAL MATERIAL AND IS THE PROPERTY OF DAVIS CIVILSOLUTIONS, P.A., PROVIDED AS AN INSTRUMENT OF SERVICE. THIS DOCUMENT MAY NOT BE USED FOR ANY PURPOSE NOT SPECIFICALLY PROVIDED TO ANY OTHER PARTY, OR USED FOR ANYTHING OTHER THAN THE SPECIFIC PROJECT IDENTIFIED OR REFERRED TO HEREIN, OR USED FOR EXTENSION TO THIS PROJECT, IN PART OR IN WHOLE, WITHOUT THE EXPRESS WRITTEN CONSENT OF DAVIS CIVILSOLUTIONS, P.A.

COPYRIGHT 2025
DAVIS CIVILSOLUTIONS, P.A.
ALL RIGHTS RESERVED

For Review

Site Development Plan For
Riverside Drive Subdivision
BUNCOMBE COUNTY, NORTH CAROLINA

Job No.: 23165
Date: May 30, 2025
Scale: 1"=40'
Revision:

Landscaping & Open Space

Sheet
C6

STAFF REPORT

To: Planning Board of Adjustment

Agenda Title: General Rezoning—317 Ventana Drive

Presenter: Ricky Hurley, AICP

Meeting Date: June 3, 2025

Summary:

A proposed rezoning of a 1.25 acre portion of property located at 317 Ventana Drive from Community Shopping District (CS) to R-21 Residential District (R-21), and the rezoning of a 0.18 acre portion of property located at 99999 Ventana Dr. from R-21 Residential District (R-21) to Community Shopping District (CS). The subject properties are currently vacant and identified in the Buncombe County tax record as PIN 9741-52-0644 and 9741-42-5878.

Background:

A general rezoning may be requested by a property owner or assigned by the Town as part of the zoning map amendment process. This type of rezoning does not include a site-specific plan, and as part of the Board's review and consideration must evaluate all potential uses permitted by right, special use, or limited use. The subject property is currently vacant and subject to Steep Slope regulations. If the Board were to grant the rezoning request, only one single family home would be permitted in the proposed R-21 Residential District zoned property.

The original parent tracts were annexed into the Town of Woodfin in August 2004 and initially zoned as R-43 Residential District (R-43), R-21 Residential District (R-21), and Community Shopping (CS), which remains today. Lot 42 was recorded on April 10, 2019, as part of Ventana, Phase 2A.

Staff Analysis:

The properties are located at the terminus of Ventana Drive within the Ventana community, with most of the surrounding properties being developed for detached single-family, except for one vacant commercial parcel at the very end of the road. Ventana Drive provides the principal means of access to both parcels and is a privately maintained street that serves the neighboring residential area to the west of the subject properties. Lot 42 was recorded on April 10, 2019 as part of Ventana, Phase 2A, with the larger tract being 68.7 acres remaining from a plat recorded on February 25, 2014.

Zoning classifications for surrounding properties are R-21 Residential District to north, south, and west of the site, with Community Shopping District the east. The Future Land Use Map (FLUM) identifies the

area as Residential 2 which is described as portions of the town with medium to large sized lots on rugged terrain. Typical neighborhood streets and rights of way are relatively narrow and lack sidewalks.

The topography of this area is defined by a high ridgeline that is part of the Craggy Mountains which slopes quickly down towards US Hwy 19/23 and Beaverdam Creek. The parcel is within the Steep Slope area as defined within the Town's Code of Ordinances.

Considerations:

- Rezoning the property to R-21 and a recombination of property would create a conforming lot that would allow for the construction of a single-family home.
- The proposed rezoning would reduce the amount of commercially zoned property within the Steep Slope zone.
- The existing commercial zoning district was established previously as part of the development for the larger Versant/Ventana community.
- Only a small portion (0.18 ac.) of R-21 zoned area is requested to be rezoned to CS as part of a planned property line adjustment.
- The proposed rezonings would result in a net gain of 1.07 acres of residentially zoned property.

Staff Recommendation:

Staff supports approval of the proposed zoning of the subject properties to R-21 Residential District (R-21) and Community Shopping (CS), as shown in Exhibit A.

Suggested Motion:

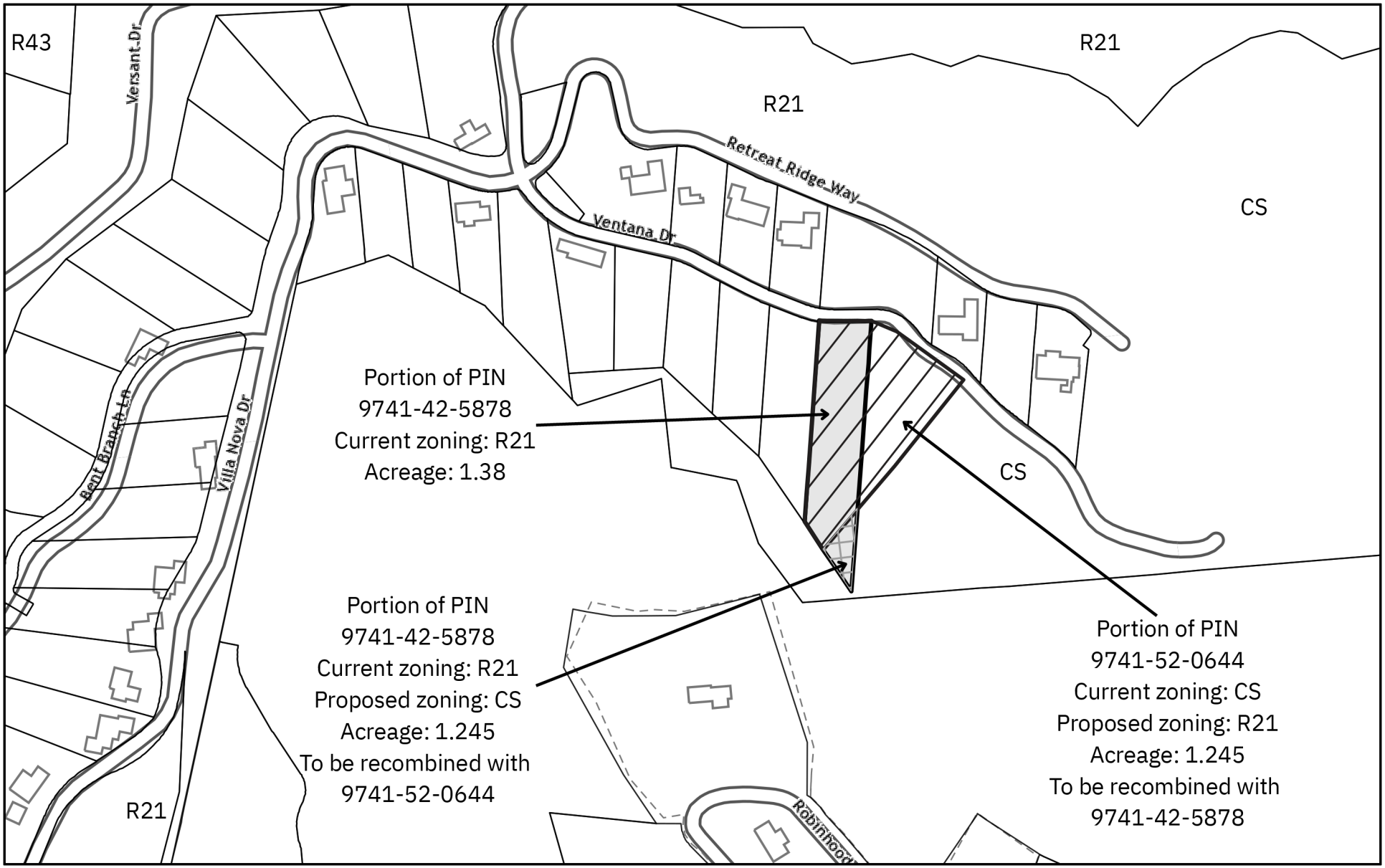
I move to approve the rezoning of 1.25 acres from Community Shopping District to R-21 Residential District and rezoning of 0.18 from R-21 Residential District to Community Shopping as shown on Exhibits A & B and find that the request is reasonable, is in the public interest, is consistent with the Town of Woodfin Comprehensive Plan, and meets the development needs of the community in that the request:

1. Uses the Future Land Use Map for guide development decisions (1.1.1).
2. Make government decision-making accessible and transparent to all residents (4.4.3).

Attachments:

(1) Zoning Map
(2) Future Land Use Map
(3) Existing Conditions/Aerial Map
(4) Survey
(5) Draft Planning Board Recommendation

Exhibit A - Woodfin Zoning Map



5/27/2025

Woodfin Parcels

Subject parcel - current acreage

Area of proposed rezoning - R21-CS

Area of proposed rezoning - CS-R21

1:4,514

0 0.03 0.07 0.13 mi

0 0.05 0.1 0.2 km

NCDOT GIS Unit, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, NC Center for

Exhibit B- Woodfin Future Land Use Map (FLUM)



5/27/2025

Woodfin Parcels
Town of Woodfin
Woodfin Planning Area
City of Asheville
Cluster Residential
Conservation
Residential 2

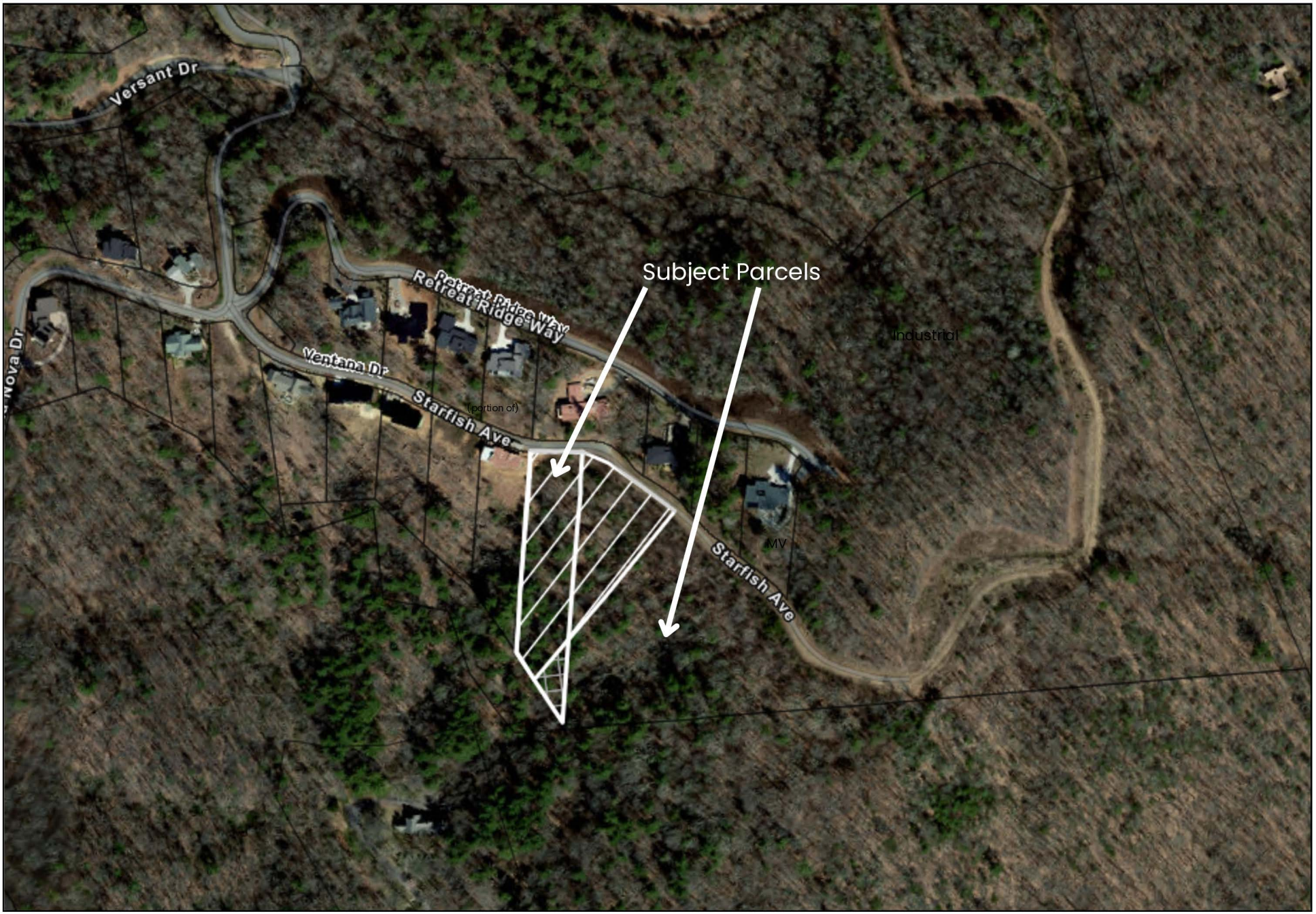
1:4,514

0 0.03 0.07 0.13 mi

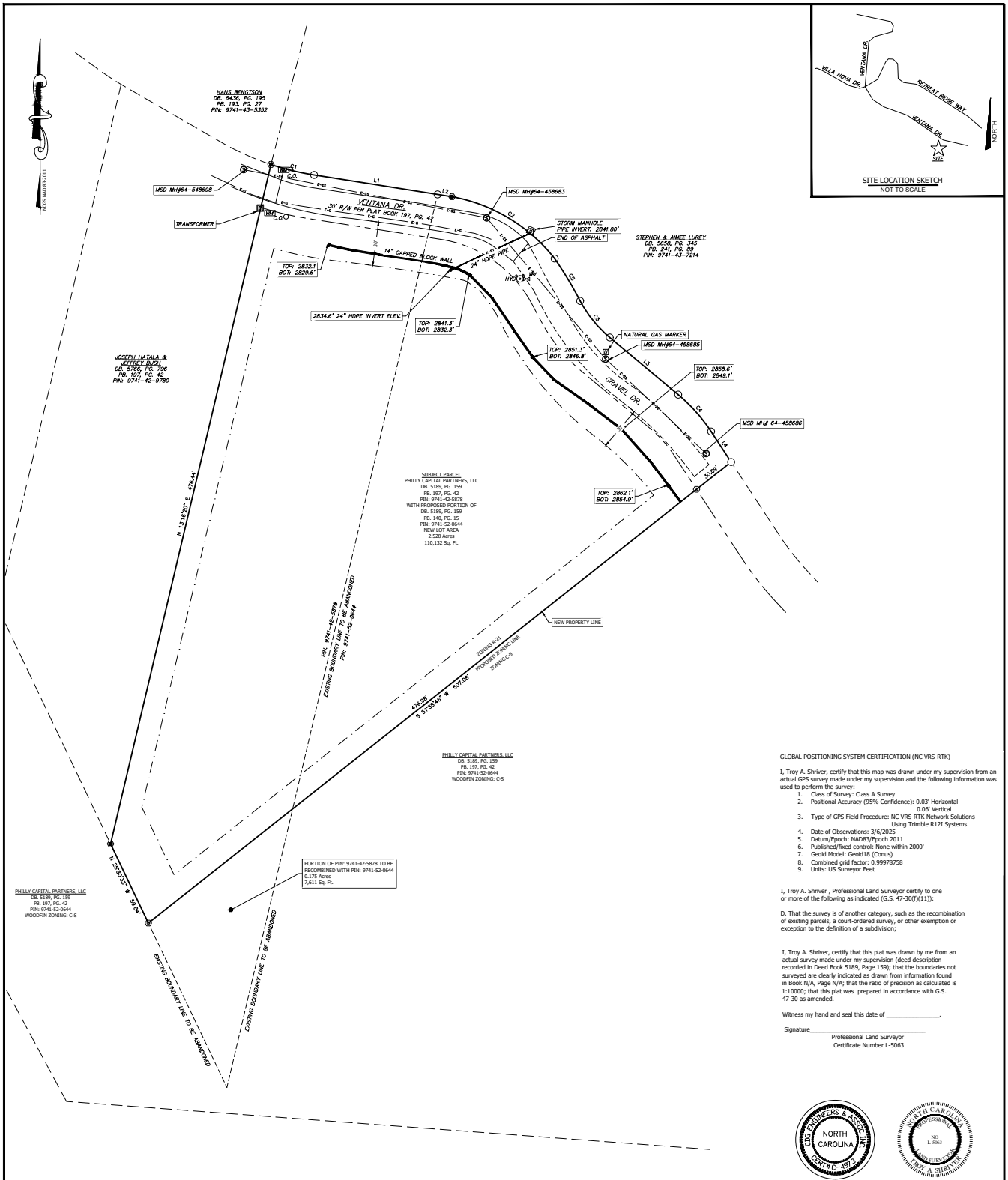
0 0.05 0.1 0.2 km

NCDOT GIS Unit, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, NC Center for

Aerial Map



Sources: NC CGIA, Mazar, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, North Carolina Department of Technology - Transportation, GIS Unit



GLOBAL POSITIONING SYSTEM CERTIFICATION (NC VRS-RTK)

I, Troy A. Shriver, certify that this map was drawn under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:

1. Class of Survey: Class A Survey
2. Positional Accuracy (95% Confidence): 0.03' Horizontal
   0.06' Vertical
3. Type of GPS Field Procedure: NC VRS-RTK Network Solutions
   Using Trimble R12I Systems
4. Date of Observations: 3/6/2025
5. Datum/Epoch: NAD83/Epoch 2011
6. Published/fixed control: None within 2000'
7. Geoid Model: Geoid18 (Conus)
8. Combined grid factor: 0.99978758
9. Units: US Surveyor Feet

I, Troy A. Shriver , Professional Land Surveyor certify to one or more of the following as indicated (G.S. 47-30(f)(11)):

D. That the survey is of another category, such as the recombination of existing parcels, a court-ordered survey, or other exemption or exception to the definition of a subdivision;

I, Troy A. Shriver, certify that this plat was drawn by me from an actual survey made under my supervision (deed description recorded in Deed Book 5189, Page 159); that the boundaries not surveyed are clearly indicated as drawn from information found in Book N/A, Page N/A; that the ratio of precision as calculated is 1:10000; that this plat was prepared in accordance with G.S. 47-30 as amended.

Witness my hand and seal this date of _____.

Signature_____
Professional Land Surveyor
Certificate Number L-5063

NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERS & SURVEYORS CERT # C-4971

NORTH CAROLINA PROFESSIONAL SEAL NO L-5063 TROY A. SHRIVER

PLAT NOTES:

1. The bearings on this plat are NC Grid (NAD 83) bearings per PB. 197, PG. 42, and distances shown are horizontal ground distances unless otherwise noted.
2. Total area of parcel: 2.528 Acres or 110,132 square feet (determined by coordinate computation method).
3. The purpose of this plat is to recombine property as shown.
7. Current Lot Zoned R-21 per City of Woodfin:
   -Setbacks: Front = 30' from pavement per PB 197, PG 42;
   Side = 15'
   Rear = 30'
8. By graphic determination, the Subject Parcels are located in "Zone X" per FIRM map number 3700974100J dated January 6, 2010.
9. Buncombe County GIS was used to determine adjoiner owner information.
10. Underground utilities were not marked at the time of the survey. OR Underground utility locations based on marks made by others. The surveyor assumes no responsibility for the accuracy of these marks.
11. Above ground utilities are located based on visible, above ground structures.
12. Property subject to all easements, rights-of-way and restrictions of record.
13. This plat was prepared without the benefit of a title report which may reveal additional conveyances, easements, rights-of-way or building restrictions. A North Carolina licensed attorney-at-law should be consulted.

CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	185.00'	30.28'	S 76°21'54" E	30.25'
C2	115.00'	83.56'	S 58°52'05" E	81.74'
C3	85.02'	32.24'	S 38°59'35" E	32.05'
C4	115.00'	33.86'	S 41°44'54" E	33.74'
C5	263.31'	33.79'	S 31°02'55" E	33.77'

LINE	BEARING	DISTANCE
L1	S 81°03'10" E	85.39'
L2	S 80°51'56" E	9.97'
L3	S 50°11'00" E	60.88'
L4	S 33°15'49" E	24.91'

LEGEND

- PROPERTY LINE
- PROPERTY LINE TO BE ABANDONED
- ADJOINER'S BOUNDARY PER DEED
- RIGHT-OF-WAY
- SETBACK LINE AS NOTED
- PAVEMENT
- EDGE OF GRAVEL
- SANITARY SEWER LINE
- STORMWATER PIPE (AS NOTED)
- 811 MARKINGS FOR GAS
- REBAR FOUND
- REBAR SET
- CALCULATED POINT
- WATER METER
- FIRE HYDRANT
- WATER VALVE
- SEWER MANHOLE
- SEWER CLEANOUT
- STORM DRAIN MANHOLE
- ELECTRICAL TRANSFORMER

SCALE 1"=30'

0' 30' 60' 90'

PROJECT#: R846625001

Recombination Survey For:
PHILLY CAPITAL PARTNERS, LLC
Owners of Record

Ventana Subdivision
Deed Book 5189 Page 159
Plat Book 140, Page 15 & Plat Book 197, Page 42
Tax PIN: 9741-42-5878 & 9741-52-0644
Woodfin Township ,Buncombe County, NC
May 8, 2025 Scale: 1" = 30'

Rev No.	Description	Date
1	Initial submittal for review	5/2/2025
2	Revised per comments	5/8/2025

THREE NOTCH GROUP

THREE NOTCH GROUP, INC.
122 LYMAN ST.
ASHEVILLE, N.C. 28801
Phone: (828) 232-4700
Website: www.3notch.com

DRAWN BY: TAS CHECKED BY: PES

RECOMMENDATION FROM TOWN OF WOODFIN PLANNING BOARD OF ADJUSTMENT TO WOODFIN TOWN COUNCIL

Having reviewed the **Zoning Map Amendment** to rezone properties at 317 & 99999 Ventana Drive (PINs 9741-52-0644 and 9741-42-5878) from R-21 Residential District (R-21) and Community Shopping (CS) to R-21 Residential District (R-21) and Community Shopping (CS) on **June 3, 2025**, and having considered information from planning staff of the Town of Woodfin and comments from the other persons, pursuant to 160D-604(d), the Town of Woodfin Planning Board of Adjustment hereby adopts the following motion, effective June 3, 2025:

The Town of Woodfin Planning Board of Adjustment recommends approval of the proposed map amendment and finds that it is reasonable, in the public interest, and consistent with the Woodfin Together Comprehensive Plan in that the proposed rezoning will:

1. Uses the Future Land Use Map for guide development decisions (1.1.1).
2. Make government decision-making accessible and transparent to all residents (4.4.3).

Vote:

Ayes/No

This document is a true and accurate statement of the findings and recommendations of the Woodfin Planning Board of Adjustment.

_____ _____

Chair Date

STAFF REPORT

To: Planning Board of Adjustment

Agenda Title: Text Amendments for Chapters 46 & 54 – Landscape & Open Space

Staff Contact: Ricky Hurley

Meeting Date: June 3, 2025

Summary:

A zoning text amendment to Chapters 46 and 54 adding new and enhancing existing landscape and open space requirements.

Background:

Periodic updates to ordinances regulating land use are necessary in response to changing economic conditions, new construction technologies, and evolving community needs. When applying the current land use regulations to new development applications, certain code sections do not provide adequate standards to ensure the desired development envisioned by the comprehensive plan. Staff feels the proposed text amendments are necessary to provide clarity in development standards for residents, design professionals, and town staff.

On July 16, 2024, the Woodfin Town Council voted to create a new Landscape and Open Space Subcommittee to meet with staff to review and discuss options for landscape and open space requirements. The subcommittee met five times (pausing for several months immediately following TS Helene) to establish goals and priorities, research and benchmark other codes, and study the application of a new set of proposed standards. The attached ordinance is the result of this committee's work.

Staff Analysis:

Woodfin's current development code has very limited landscape and open space requirements resulting in the loss of green space and tree canopy coverage over time making the community more vulnerable to the effects of urbanization and climate change. The proposed standards are intended to enhance the built environment while remaining practical and achievable so as not to create barriers to new development. Both current and proposed standards are located in two separate chapters - Subdivisions and Zoning.

Subdivisions: Currently, only Mountain Village district requires open space and street trees for new development. Amendments to the subdivision chapter will require street trees and 15% open space for all major subdivisions containing five lots or more, regardless of the underlying zoning district.

Zoning: Mountain Village district is the only zoning classification with moderate landscape standards requiring vehicular use area planting, street yards, and buffer yards. All other zoning district landscape standards are limited to a 10-foot buffer strip when a commercially zoned property is being developed adjacent to residentially zoned land, and for downhill plantings for new construction located in steep slope zones. The proposed Landscape and Open Space standards will apply more broadly to projects in all zoning districts, meeting one or more of the following thresholds:

- Residential multi-family or single-family projects with five or more dwelling units
- Non-residential building construction of 5,000 square feet or more
- Building or business area expansions that are 50% or greater than the pre-expansion square footage, or
- Building or business area expansions of 20,000 square feet or more, regardless of pre-expansion building/business size

New landscape standards are broken into several categories and are applied based on the project's proposed design, zoning, and site context. Those categories include:

- Street trees
- Buffer yards
- Vehicular Use Area
- Screening

In addition to landscape standards, a new **open space** requirement sets aside 5-15% of the pre-development land area to be preserved as natural or passive/active recreation open space, depending on the total lot area.

Other amendments include:

- Incentivizing the preservation of existing trees by allowing them to be credited towards the landscape requirement. The larger the diameter of the tree, the greater the credit.
- Including standards for maintenance & prohibitions on excessive pruning
- Expanding the prohibition for speculative grading to all zoning districts within the town.
- Re-organizing and updating definitions
- Updating the tree credit table in steep slopes to be consistent with landscape standards
- Updating application requirements for Conditional Zoning (Sec. 54-156)
- Deleting the site plan checklist located in 54-157

Lastly, to ensure that plant material is suitable to Western North Carolina and its micro-environments, and to aid property owners, developers, and design professionals, a Recommended Plant List is provided and included as an appendix to development code.

Staff Recommendation:

Staff recommend approval of the proposed text amendments to Chapters 46 and 54.

Suggested Motion:

I move to approve the proposed text amendments to Chapters 46 and 54 subject to the following additional conditions:

1) (*Board to add conditions here, if applicable.)*
2) ….

and find that it is reasonable, is in the public interest, is consistent with the Town of Woodfin comprehensive plan, and meets the development needs of the community in that the request:

1. Provides additional clarity and predictability to development requirements, thereby supporting economic development;
2. Ensures that the Town's planning, zoning, and permitting processes facilitate sustained and positive development and support the needs of business and industry; and
3. Preserves and enhances Woodfin's open space, natural environment, and community character.

Attachments:

(1) Text Amendment Ordinance #2025-0XX
(2) Appendix A – Town of Woodfin Recommended Plant List
(3) Landscape & Open Space Mark-ups

ORDINANCE AMENDING CHAPTERS 46 & 54 OF THE CODE OF ORDINANCES OF THE TOWN OF WOODFIN TO ENHANCE LANDSCAPE AND OPEN SPACE STANDARDS

Ordinance: 2025-0XX

Passed _____

WHEREAS, the Town of Woodfin has the authority pursuant to Article 1 of Chapter 160D of the North Carolina General Statutes to adopt development regulations; and

WHEREAS, the Woodfin Town Council may amend said regulations from time to time in the interest of the public health, safety, and welfare; and

WHEREAS, the Town initiated a recommendation to amend Chapters 54-Zoning of the Town of Woodfin Code of Ordinances; and

WHEREAS, the public hearing for this text amendment has been noticed in compliance with the North Carolina General Statutes; and

WHEREAS, the Woodfin Planning Board reviewed this text amendment at its June 3, 2025, public meeting and voted ___to find the amendment reasonable considering the potential benefits to development of the Town of Woodfin and surrounding community; and

WHEREAS, the Woodfin Town Council held the public hearing on June 17, 2025 and, after hearing such, made the following required findings:

The development code text amendment is consistent with the comprehensive plan in the following ways:

1. Provides additional clarity and predictability to development requirements, thereby supporting economic development;
2. Ensures that the Town's planning, zoning, and permitting processes facilitate sustained and positive development and support the needs of business and industry; and
3. Preserves and enhances Woodfin's open space, natural environment, and community character.

NOW, THEREFORE, BE IT ORDAINED by the Town Council of the Town of Woodfin, that Chapter 54-Zoning is hereby amended as follows:

Section 1:

a. Amend Chapter 46, Article IV by renumbering Sections 46-120 and 46-121 to read:

Sec. 46-121. – Other requirements.

Sec. 46-122. – Penalty.

b. Insert a new Sec. 46-120 to read as follows:

Sec. 46-120. – Landscape standards.

(a) *Applicability*. Landscape standards shall apply to all new major subdivisions with five or more lots.

(b) *Standards*.

(1) Street Trees. Street trees as described in Sec. 54-216 shall be required along all new and existing street frontages within or adjacent to the subdivision. Where lots abut both sides of a street, trees shall be required on each side.

(2) Open Space. A minimum of 15% of the total land area in the subdivision shall be set aside as open space. Open space shall meet the standards described in Sec. 54-216.

c. Amend Sec. 54-10 by adding the following definitions in alphabetic order:

Artificial slope shall mean any land disturbing activity that modifies an existing slope.

Bufferyard means a linear strip of land combined with a vertical element such as plants, berms, fences, or walls, which physically separates and screens incompatible land uses.

Cut slope shall mean the exposed ground surface resulting from excavation of material.

Critical root zone shall mean the minimum area beneath a tree which must be left undisturbed and protected from construction disturbance in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. The critical root zone is delineated by a concentric circle with the tree trunk as the center. The radius of the critical root zone equals one foot for every one inch of tree diameter. Example: a 20-inch diameter tree will have a critical root zone radius of 20 feet.

Development shall mean any man-made change to improved or unimproved real estate, including, but not limited to, new buildings and structures, including additions/expansions, mining, dredging, filling, grading, paving, excavation, or drilling operations.

Disturbed areas shall mean any area subject to a *land-disturbing activity.*

Downhill sections shall mean areas of the property which fall ten feet or more in elevation within 50 feet of the structure.

Fill slope shall mean the exposed ground surface resulting from deposition of material.

Forested areas shall mean an ecosystem supporting a dense growth of trees covering a large area.

Geotechnical assessment shall mean a comprehensive analysis of soil type(s), composition, and characteristics (colluvial, cohesive or expansive, pH, water retention, etc.) conducted pursuant to proposed development of a building site.

Impervious surface shall mean any surface that does not allow water to percolate through, or significantly penetrate, for natural absorption by the ground within a 24-hour period, including but

not limited to: rooftops, parking/driving areas finished with asphalt, concrete, or densely compacted gravel, patios, or pools.

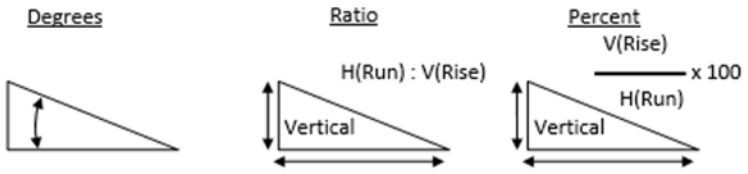
Land-disturbing activity shall mean any use of the land by any person in a residential, industrial, educational, institutional, or commercial development, highway and road construction, and maintenance that results in a change in the natural cover or topography.

Planar surface is defined as the combined exterior surface area of all vertical surfaces within a single face of the structure.

Regulated tree shall mean all native trees of with a caliper of three or more inches when measured six inches above the root ball and any mature grouping of rhododendron or mountain laurel of 250 square feet or more in area. Invasive non-native species shall not be included in this definition.

Revegetation shall mean reintroducing native plant species, as defined by the Natural Resource Conservation Service of the United States Department of Agriculture, into a disturbed area to restore native plant communities, mitigate erosion and landslides, and minimize the expansion of non-native invasive plants.

Slope shall mean the extent to which a landform deviates from the perfectly horizontal as expressed in percent, degree or ratio. To ensure consistent conversion between these separate methods of expressing the extent of slope, the following explanatory table is provided as part of this definition.



45°	1H:1V	100%
39°	1.25H:1V	80%
34°	1.5H:1V	67%
30°	1.75H:1V	57%
27°	2H:1V	50%
22°	2.5H:1V	40%
18°	3H:1V	33%
14°	4H:1V	25%
8.5°	6.7H:1V	15%

Snags shall mean any dead or dying standing tree. For wildlife purposes, snags should be at least three inches in diameter at breast height (dbh) and at least six feet tall. Snags may develop cavities which either occur naturally or are excavated by birds and mammals. The removal of snags can negatively impact wildlife populations that are dependent on them as essential habitat components. Generally, the value of a snag tree increases as its size increases. To assure that the minimum requirements of most wildlife species are being met, three snags of 12 inches dbh or greater should be available per acre. A minimum of one 15-inch dbh or greater diameter den tree should also remain per acre.

d. Amend Sec. 54-10 replacing the definition of “lot” to read as follows:

Lot shall mean a parcel of land occupied or intended for occupancy by one or more uses permitted in the Town of Woodfin Zoning Ordinance, including the principal building and all accessory building(s), and having its principal frontage upon a dedicated street.

e. Amend Sec. 54-10 by deleting the definition of *Buffer strip* from the list of definitions.

f. Amend Sec. 54-156(e)(4) to read as follows:

(4) *Application submittal and acceptance.* All applications for conditional zoning shall be accompanied site plan(s) prepared by a licensed professional, drawn to scale, and that includes all applicable information as identified on the site plan checklist supplied by the Planning Department, in addition to any other plans, drawings, renderings, elevations, maps and documents specifically included as development documents for approval.

a. *Formal staff review.* Town staff shall review the application materials to identify issues or concerns with the proposed development and determine compliance with the requirements of this chapter and other applicable development standards. Town staff will provide detailed comments to the reviewing board regarding issues identified and recommend any necessary changes or conditions to the application materials to bring it into compliance with all applicable development requirements and the town's comprehensive plan.

b. *Public hearing required.* The conditional zoning district rezoning approval decision is a legislative process subject to judicial review using the same procedures and standard of review as apply to general use district zoning decisions. The conditional zoning application shall be considered and treated as a zoning map amendment. In considering any petition for a conditional zoning district rezoning, the town shall follow all the procedures set forth in section 54-69 and North Carolina General Statutes.

c. *Planning board recommendation*. After holding the public hearing, the Planning Board of Adjustment may recommend approval of the application, including recommending conditions for the zoning; recommend denial of the application; or continue the consideration of the application to receive further information. If recommending approval or denial of the application, the Planning Board of Adjustment must provide a written recommendation addressing the consistency of the proposal with the comprehensive plan and other adopted plans.

d. *Review by town council.* Upon receipt of the recommendations from the Planning Board of Adjustment, the town council shall hold a public hearing on the application for conditional zoning.

e. *Conditional zoning document recordation.* All approved conditional zoning ordinances, in addition to any site and building plans that are referenced in the associated project conditions shall be recorded with Buncombe County Register of Deeds. A copy of the recorded documents must be supplied to the Planning Department within 30 days of approval.

g. Amend Sec. 54-214(e)(9) to read as follows:

(9) *Preservation of vegetation.* The removal of trees, vegetation, and snags from lots within steep slope zones is prohibited unless such trees, vegetation, and snags are located within a permitted land disturbance area or within 30 feet of any dwelling unit and 20 feet of a combustible accessory structure. Non-native invasive species may be removed. For all new development, these preservation areas shall be designated on plans submitted for approval. Preservation areas shall be clearly designated during all land disturbing activities using protective fencing and shall be inspected prior to the zoning permit being issued.

h. Amend Chapter 54, Article V by replacing Sec. 54-157 in its entirety to read as follows:

Sec. 54-157. – Site plan requirements.

(a) *Site plan required.* All applications for zoning permits shall be accompanied by a site plan(s) identifying all applicable information listed in the site plan checklist(s) kept on file with the Town of Woodfin Planning Department.

i. Amend Sec. Sec. 54-214 to remove subsection "(d) Definitions" in its entirety and rename as:

(d) *Reserved.*

g. Amend Sec. 54-214(e)(6)(b)(iv) to read as follows:

iv. Tree composition. Trees must be of varying, native species, as defined by the Natural Resources Conservation Service of the United States Department of Agriculture, and no single species shall comprise more than 50 percent of the trees planted, unless applying existing tree credits. Existing trees which are left intact and that appear in good health may be credited toward the required plantings based on the following table.

The following credit system may be applied, provided tree protection standards outlined in Sec. 54-216(5) are met:

Existing Tree DBH	Number of Tree Credits
2" – 6"	1
7" – 12"	2
13" – 18"	3
19" – 24"	4
25" or greater	5

h. Amend Chapter 54, Article X by adding a new Sec. 54-215 to read as follows:

Sec. 54-215. – Grading restrictions.

(1) *Grading without an approved development plan.* Any land-disturbing activity without an approved development plan shall not be permitted, except as otherwise exempted by N.C.G.S. 160D-903.

i. Add a new Sec. 54-216 to read as follows:

Sec. 54-216. - Landscape and open space.

(1) *Purpose*. The purpose of the landscape and open space standards is to preserve or provide quality outdoor spaces that improve the natural scenic beauty, provide areas of respite or recreation, encourage preservation of existing trees and other vegetation, replenish trees and vegetation removed due to development, reduce stormwater runoff, decrease erosion, improve water quality, and protect wildlife habitat.

(2) *Applicability*. Landscape and open space standards shall be required for the following new construction developments within the Town of Woodfin:
   a. Multi-family or single-family residential projects with 5 or more units or lots.
   b. Non-residential development with one or more buildings and/or business areas, as defined in Sec. 54-10, totaling 5000 square feet or more.
   c. Expansions of pre-existing buildings and/or business areas that are:
      - 50 percent or more of the existing building and/or business area, or
      - Greater than 20,000 square feet, regardless of existing square footage.

(3) *Standards*.
   a. General.
      i. *Minimum tree size at planting*. All large maturing trees shall be a minimum of 2-inch caliper or 8-10' tall, while all small-maturing trees shall be a minimum of 1 ½ -inch caliper or 6-8' tall.
      ii. *Minimum planting area*. All trees shall have a minimum planting area of 300 square feet with tree wells dug a minimum of 3-feet deep.
      iii. *Maintenance requirements*. The owner or lessee of the property where landscaping is required shall be responsible for the maintenance and protection of all required trees. Landscaped areas shall be maintained in good condition and kept free of debris. Required material may not be replaced without approval from the zoning administrator. Failure to maintain may result in enforcement action per Sec. 54-41
      iv. *Pruning* of *required trees.* Pruning of required trees shall be in accordance with the American National Standards Institute (ANSI) standards A300 or its successor. No topping of trees shall be permitted.
      v. *Selection & suitability*. All plant materials shall be in good health and free of disease. All required plant material shall be selected from the Town of Woodfin's Recommended Plant List – Appendix A. Plant material native to Western North Carolina shall be required in environmentally sensitive areas including steep slopes and regulated flood areas and shall be selected based on a species suitability to those areas. In all other areas, native plant material is encouraged, as is the use of pollinator species.

   b. Street trees.
      i. *Minimum requirement.* One large maturing tree meeting for every 50 linear feet of street frontage shall be required. Where overhead utility lines are present, one small maturing tree for every 40 linear feet shall be required.
      ii. *Placement.* Street trees shall be placed parallel to the street, within 20 feet of the edge of pavement. Trees may be located within the town right-of-way or on private property. Trees proposed to be located within state-controlled rights-of-way must

obtain approval from the North Carolina Department of Transportation prior to zoning approval.

iii. *Spacing.* Street trees shall be spaced not closer than 15-feet and no further than 60-feet apart.

c. Landscape bufferyards.
   i. *Minimum requirement*. A 20-foot-wide vegetated buffer shall be required along the property boundary between non-residential and residential zoning.
   ii. *Planting rate*. A minimum of eight trees and 14 shrubs shall be planted for every 100 linear feet of property line buffer.
   iii. *Planting composition*. A minimum of 50 percent of all material must be evergreen.
   iv. *Plant spacing*. Plant material shall be arranged in a naturalistic manner. Trees shall be spaced no closer than 15-feet from other trees.
   v. *Bufferyard reduction*. A bufferyard width and planting rate may be reduced by 50-percent with the installation of a minimum 8-foot tall, opaque fence or wall.
   vi. *Stream buffers*. All built upon areas shall provide a minimum setback from all regulated streams as described in Sec. 41-12 and may be used to meet the requirements of this sub-section.

d. Vehicular use area landscaping.
   i. *Minimum requirement*. A minimum of one tree shall be required for every 1500 square feet of vehicular use areas with more than 10 parking spaces, or greater than 5000 square feet. A maximum of 25 percent of all required vehicular use area trees may be small maturing.
   ii. *Placement*. Trees shall be planted within 20-feet of the edge of the vehicular use area.
   iii. *Interior islands*. For vehicular use areas with interior rows of parking, interior planting islands shall be included and spaced to ensure that no parking space is more than 50-feet from a tree. No utilities, light poles, or other structures are permitted in tree islands and islands must be a minimum of 300 square feet per tree.

e. *Screening*. Screening of dumpsters, loading docks, outdoor storage, shall be required with one of the following methods:
   i. A continuous hedge of evergreen trees spaced no less than eight feet apart planted in a minimum seven-foot wide planning strip, or
   ii. An opaque fence or wall with a minimum height of six feet with the finished side of the fence facing out.

f. *Open space.* Required open space may include undisturbed natural areas or areas developed for passive or active recreation purposes.
   i. *Minimum requirement.* Open space shall be set aside at the following rates based on the cumulative parcel size:
      - Less than 1 acre — 5% of total lot area
      - 1-3 acres — 10% of total lot area
      - Over 3 acres — 15% of total lot area
      - Subdivisions w/ 5 or more lots — 15% of total lot area
   ii. Minimum size. Non-contiguous open space areas must be a minimum of 1000 square feet in size.

iii. *Prohibited structures and features*. Required open space may not include above ground stormwater facilities, vehicular use areas, utility substations, retaining walls, community identification signage, retaining walls over four-feet in height, cluster mailboxes, and slopes with a grade greater than 3:1.

iv. *Structures or features allowed at a reduced rate.* Fifty percent (50%) of all areas dedicated to innovative stormwater management that are publicly accessible and do not require fencing, and hardscaped passive or active recreation areas may count towards required open space.

v. *Canopy coverage.* Open space shall be required to include tree plantings at a minimum rate of 1 tree per 1000 square feet. 75% of all required trees shall be large maturing species. New trees must be spaced a minimum of 20 feet from any existing tree, and 15 feet from any proposed tree.

(4) *Tree credits*. Credits for existing trees may be applied to any landscape requirement provided other requirements can be met. Credits shall be applied at the following rates:

Existing Tree DBH	Number of Tree Credits
2" – 6"	1
7" – 12"	2
13" – 18"	3
19" – 24"	4
25" or greater	5

(5) *Tree protection*. No grading or other land-disturbing activity may occur on a site with existing trees which are designated to be preserved to meet the landscaping requirements until protective barriers are installed by the developer and inspected by the zoning administrator. The diameter at breast height (DBH) of the preserved trees, the species, and the location of protective barriers must be shown on the landscape and grading plans with the dimension between the tree trunk and barrier indicated.

i. *Placement of protective barriers.* Barricades shall be placed around the critical root zone of preserved trees that are within 50 feet of any grading or construction activity. All protective barriers must include clear and visible signage that describes the delineated area as a "Tree Protection Area". All protective barriers and signs must be maintained throughout the building construction process.

ii. *Protective barriers.* A fence or other barrier which is at least three feet high and constructed with durable, weather-proof, and high-visibility materials must be used to identify the tree protection area.

iii. *Prohibited activities.* Land disturbance and other activities may not occur within the tree protection area including:

- Grading
- Filling
- Parking or staging of vehicles, equipment, dumpsters or trailers
- Storage of debris, topsoil, mulch, sand or any other construction material
- Installation of sedimentation and erosion control measures except that erosion control fencing which may run parallel to the tree protection barrier
- Disposal of hazardous or other wastes including concrete washout
- Attaching of nails, ropes, cables, signs, or fencing to any preserved tree.

(6) *Enforcement and penalties*. The Town of Woodfin shall perform inspections to ensure that work conforms to the approved plan and the provisions of this section. Violations of this section shall be enforced per Sec. 54-41 of this chapter.

j. Add a new APPENDIX A – RECOMMENDED PLANT LIST to the Town of Woodfin Code of Ordinances, to be inserted after "Chapter 54. – ZONING" and before "CODE COMPARATIVE TABLE – 1995 CODE".

[See Attached Appendix]

Section 2: If any provisions of this Ordinance are for any reason held invalid or unconstitutional by any court of competent jurisdiction, such provision shall be deemed a separate, independent provision and such holding shall not affect the validity of any other provision thereof, and to that end, the provisions of this Ordinance are hereby declared to be severable.

Section 3: This Ordinance is adopted on this 17th day of June 2025 and shall become effective immediately upon adoption.

Section 4. This ordinance shall be deemed published as of the day of its adoption and approval by the Town Council and the Clerk of the Town of Woodfin is hereby authorized and ordered to file a copy of said ordinance in the Office of the Town Clerk.

Section 5. Except as modified herein, this ordinance shall be in full force and effect immediately on the date of its publication and filing thereof in the Office of the Clerk, and said ordinance shall be presumptive evidence in all courts and places of the ordinances and all provisions, sections, penalties and regulations therein contained and of the date of passage, and that the same is properly signed, attested recorded and approved and that any public hearings and notices thereof as required by law have been given.

Ayes _____
Nays _____

_____

Attest: James C. McAllister, Mayor

_____
Town Clerk

Trees															
Common name	***Botanical Name***	**Type**		**Light**				**Water**				**Height**	**Notes**	**Native**	**Edible**
Red maple	*Acer rubrum*	D		F	→	S		H	→	X		40-70'	Low flamablility; buckles streets and sidewalks	X	
Sugar maple	*Acer saccharum*	D		F	→	S		M	→	SX		40-80'	Can buckle sidewalks and clog drains; pollinators	X	
Serviceberry	*Amelanchier arborea*	D		F	→	P		M	→	SX		15-25'	Bees	X	X
Paw paw	*Asimina triloba*	D		P	→	S		M	→	SX		15-30'	flies, beetles (sole larval host for zebra swallowtail butterfly); Low flamability and beneficial f	X	X
River birch	*Betula nigra*	D		F	→	P		H	→	X		40-70'	Lots of litter	X	
Eastern redbud	*Cercis canadensis*	D		F	→	S		M	→	X		12-30'	Pollinator and larval host plant; fruit food for songbirds; Native	X	
Fringe tree	*Chionanthus virginicus*	D		F	→	S		M	→	X		12-20'	moths (larval host to Rustic sphinx moth); Native; fruit food for birds and wildlife	X	
Flowering dogwood	*Cornus florida*	D		F	→	S		M	→	X		15-30'	butterflies, bees, flies (larval host to Spring Azure butterfly)	X	
Persimmon	*Diospyros virginiana*	D		F	→	P		M	→	SX		35-60'	bees, ants, moths	X	X
American beech	*Fagus grandifolia*	D		F	→	S		M	→	SX		50-80'		X	
Carolina silverbell	*Halesia carolina*	D		F	→	S		M	→	SX		30-40'	Bees	X	
Common witch-hazel	*Hamamelis virginiana*	D		F	→	S		M	→	SX		15-20'		X	
Eastern red cedar	*Juniperus virginiana .*	E		F	→	P		SX	→	X		8-25'		X	
American holly	*Ilex opaca*	E		F	→	S		M	→	SX		25-60'	honey bees (larval host to Elf butterfly)	X	
Tulip tree	*Liriodendron tulipifera*	D		F	→	P		M	→	SX		60-90'		X	
Cucumber tree	*Magnolia acuminata*	D		P	→	S		M	→	SX		40-70'		X	
Umbrella tree	*Magnolia tripetala*	D		F	→	P		M	→	SX		15-30'		X	
Black tupelo	*Nyssa sylvatica*	D		F	→	S		M	→	X		30-50'	Pollinators	X	
Sourwood	*Oxydendrum arboreum*	D		F	→	S		SX	→	X		to 50'	bees, butterflies; larval host	X	
Eastern white pine	*Pinus strobus*	E		F	→	S		M	→	SX		50-80'		X	
Sycamore	*Platanus occidentalis*	D		F	→	P		H	→	M		75-100'		X	
White oak	*Quercus alba*	D		F	→	P		M	→	X		50-80'		X	
Northern red oak	*Quercus rubra*	D		F	→	P		M	→	SX		50-70'		X	
*Common sassafras	*Sassafras albidum*	D		F	→	P		M	→	SX		30-60'		X	
American basswood	*Tilia americana*	D		F	→	S		M	→	SX		50-80'		X	
Eastern hemlock	*Tsuga canadensis*	E		F	→	S		M	→	SX		40-70'	Native; susceptible to Hemlock woolly adelgid	X	
Blackhaw viburnum	*Viburnum rufidulum*	D		F	→	S		M	→	X		10-20'	butterflies	X	X
Yellow Buckeye	Aesculus flava	D		F	→	P		M	→			60-75'	Low flamablility; poisonous to humans; native to WNC, avoid use as street tree or new hom	X	
Red Horsechestnut	Aesculus X carnea	D		F	→	P		M	→			30-40'	Not ideal for walking areas--very messy		
Serviceberry, Sarvis	Amelanchier arborea	D		F	→	P		M	→			15-25'	birds and butterfles, edible fruit	X	X
Allegheny Serviceberry	Amelanchier laevis	D		F	→	P		M	→			18-20'	birds, edible fruit	X	X
American Hornbeam	Carpinus caroliniana	D		P	→	S		M	→			20-30'	Native; wildlife friendly; pollinator and larval host plant	X	
Sugarberry	Celtis laevigata	D		F	→	P		H	→	M		40-60'	fruits eaten by many birds and mammals	X	
Common Hackberry	Celtis occidentalis	D		F	→	P		H	→	M		40-60'	fruits eaten by many birds and mammals; pollinators	X	
American Yellowwood	Cladrastis kentukea	D		F	→			M	→			30-50'	Native; nesting for songbirds; attractive to pollinators	X	
Pagoda Dogwood	Cornus alternifolia	D		F	→	P		M	→			15-25'	Native; attractive to pollinators	X	
Flowering Dogwood	Cornus florida	D		F	→	P		M	→			20-30'	Native; fruit food for birds and wildlife	X	
American Smoketree	Cotinus obovatus	D		F	→			M	→			20-30'		X	
Washington Hawthorn	Crataegus phaenopyrum	D		F	→			M	→			25-30'	Native; fruit food for birds and wildlife	X	
American Persimmon	Diospyros virginiana	D		F	→	P		M	→	SX		35-60'	Native; fruit food for birds and wildlife; pollinators	X	X
American Beech	Fagus grandifolia	D		F	→	S		M	→			50-70'		X	
European Beech	Fagus sylvatica	D		F	→	S		M	→			50-60'			
Ginkgo Maidenhair Tree	Ginkgo biloba	D		F	→			M	→			50-80'	Street tree		
Thornless Honeylocust	Gleditsia triacanthos var. inermis	D		F	→			M	→			30-70'	Thorns; street tree	X	
Kentucky Coffee Tree	Gymnocladus dioica	D		F	→			M	→			60-75'		X	
Mountain Silverbell	Halesia monticola	D		F	→	P		M	→			20-40'		X	

Nellie Stevens Holly	Ilex x 'Nellie R. Stevens'	E		F	→	P		M	→			15-25'	Pollinator		
Foster Holly	Ilex x attenuata 'Fosteri'	E		F	→	P		M	→			20-30'	Birds and pollinators		
Sweetgum	Liquidambar styraciflua	D		F	→	P		M	→			60-75'	Fruit creates littering problem	X	
Tulip Poplar Yellow Poplar	Liriodendron tulipifera	D		F	→	P		M	→			70-90'	Birds and pollinators; avoid use as street tree	X	
Flowering Crabapple	Malus spp.	D		F	→			M	→			15-25'	birds and butterfles, edible fruit		
Mulberry	Morus rubra	D		F	→	P		M	→			30-50'	birds, edible fruit; not ideal in high foot traffic areas	X	X
Sourwood	Oxydendrum arboreum	D		F	→	P		M	→			25-30'		X	
American Sycamore	Platanus occidentalis	D		F	→	P			→			75-100'		X	
Sargent Cherry	Prunus sargentii	D		F	→				→			20-30'			
Higan Cherry	Prunus subhirtella	D		F	→				→			20-40'			
Yoshino Cherry	Prunus yedoensis	D		F	→				→			40-50'			
White Oak	Quercus alba	D		F	→	P			→			50-80'		X	
Swamp White Oak	Quercus bicolor	D		F	→				→			50-60'		X	
Scarlet Oak	Quercus coccinea	D		F	→				→			70-75'		X	
Pin Oak	Quercus palustris	D		F	→	P			→			60-70'		X	
Willow Oak	Quercus phellos	D		F	→				→			60-90'		X	
Red Oak	Quercus rubra	D		F	→	P			→			60-75'		X	
Shumard Oak	Quercus shumardii	D		F	→	P			→			80-100'	Beneficial to multiple insects	X	
White Willow	Salix alba	D		F	→	P			→			60-75'			
Japanese Pagoda Tree	Styphnolobium japonicum	D		F	→				→			50-70'			
Bald Cypress	Taxodium distichum	D		F	→				→			50-70'		X	
English Yew	Taxus baccata	E		F	→	S			→			30-60'			
Basswood American Linden	Tilia americana	D		F	→				→			60-80'	Pollinator	X	
Littleleaf Linden	Tilia cordata	D		F	→				→			60-70'			
Silver Linden	Tilia tomentosa	D		F	→				→			50-70'			
Devilwood	Osmanthus americanus	E		F	→	P			→			15-20'		X	
American Hophornbeam	Ostrya virginiana	D		F	→	P			→			25-40'		X	
* These plants can be vigorous growers and may need more management control															
Type															
D	Deciduous														
E	Evergreen														
Light															
F	Full sun														
P	Part sun														

S	Shade													
Soil Moisture														
H	hydric; wet, plants periodically or often inundated by water													
M	mesic; moist, adequate soil moisture retention year round													
SX	sub-xeric; moist to dry, seasonally moist, periodically dry													
X	xeric; dry &drought resistant little moisture retention, excessively drained													

Shrubs														
Common name	***Botanical Name***	**Type**		**Light**				**Water**				**Height**	**Pollinator**
*Tag alder	*Alnus serrulata*	D		F	→	P		H	→	M		12-20'	bees; larval host
Red chokeberry	*Aronia arbutifolia*	D		F	→	P		H	→	SX		6-10'	
Black chokeberry	*Aronia melanocarpa*	D		F	→	P		H	→	X		3-6'	
Sweetshrub	*Calycanthus floridus*	D		P	→	S		H	→	SX		4-6'	beetles
New Jersey tea	*Ceanothus americanus*	D		P	→	S		M	→	X		3-4'	hummingbirds, butterflies
Cinnamonbark	*Clethra acuminata*	D		F	→	P		SX	→	X		7-12'	hummingbirds, butterflies, honey bees
Silky dogwood	*Cornus amomum*	D		F	→	P		H	→	SX		4-10'	bees, flies, butterflies; larval host
Hazelnut	*Corylus americana*	D		F	→	S		M	→	SX		10-16'	edible nuts; wildlife
Bush honeysuckle	*Diervilla sessilifolia*	D		F	→	S		M	→	X		4-5'	bumble bees, (larval host to bumblebee hawkmoth)
Hearts-a-bustin	*Euonymus americanus*	D		P	→	S		M	→	SX		3-6'	bees, beetles, flies, ants; larval host
Large fothergilla	*Fothergilla major*	D		F	→	P		M	→	SX		6-10'	
Wild hydrangea	*Hydrangea arborescens*	D		P	→	S		M	→	SX		4-5'	butterflies, bees
Oakleaf hydrangea	Hydrangea quercifolia	D		P	→	S		M	→			3-12'	bees
Dense St. John's wort	*Hypericum densiflorum*	D		F	→	P		M	→	X		2-6'	Bees
Shrubby St. John's wort	*Hypericum prolificum*	D		F	→	P		H	→	X		1-5'	birds
Common winterberry	*Ilex verticillata*	D		F	→	S		H	→	M		6-20'	honey bees, butterflies (larval host to Elf butterfly)
Virginia sweetspire	*Itea virginica*	D		F	→	S		H	→	SX		3-5'	
Mountain laurel	*Kalmia latifolia*	E		F	→	P		SX	→	X		8-20'	butterflies, hummingbirds
Drooping leucothoe	*Leucothoe fontanesiana*	E		P	→	S		M	→	X		18-24"	bees, butterflies
Spicebush	*Lindera benzoin*	D		P	→	S		M				6-12'	butterflies (larval host for Eastern tiger swallowtail, spicebush
Mock orange	*Philadelphus inodorus*	D		F	→	P		M	→	SX			
Sweet azalea	*Rhododendron arborescer*	D		F	→	S		H	→	M		8-12'	butterflies, hummingbirds; larval host
Flame azalea	*Rhododendron calendulac*	E		P	→	S		M	→	SX		4-8'	butterflies, hummingbirds; larval host
Carolina rhododendron, Punctatum	*Rhododendron carolinianu*	E		P	→	S		M	→	SX		3-6'	hummingbirds, butterflies
Catawba rhododendron	*Rhododendron catawbiens*	D		F	→	S		M	→	SX		6-10'	hummingbirds, butterflies
Rosebay rhododendron	*Rhododendron maximum*	E		P	→	S		M	→	SX		5-15'	
Pinxter azalea	*Rhododendron periclymen*	D		P	→	S		H	→	SX		6-12'	hummingbirds, bumble bees
Pinkshell azalea	*Rhododendron vaseyi*	E		F	→	P		M	→	SX		5-10'	butterflies, bees
*Smooth sumac	*Rhus glabra*	D		F	→	P		M	→	SX		9-15'	fruit attractive to wildlife
Carolina rose	*Rosa carolina*	D		F	→	P		M	→	SX		3-6'	bees, flies, beetles; larval host
*Silky willow	*Salix sericea*	D		F	→	S		H	→	SX		6-13'	bees and butterflies; larval host
*Elderberry	*Sambucus canadensis*	D		F	→	S		M				5-12'	flies, bees, butterflies, moths (larval host for Spring azure butt
*Coral berry	*Symphoricarpos orbiculatu*	D		F	→	S		M	→	X		2-5'	birds
*Highbush blueberry	*Vaccinium corymbosum*	D		F	→	P		SX	→	X		6-12'	bees, bumble bees; edible fruit
Cranberry	*Vaccinium macrocarpon*	E		F	→	P		H	→	M		<1'	Bees
Lowbush blueberry	*Vaccinium pallidum*	D		P	→	S		M	→	X			bees, butterflies; edible fruit
Maple-leaf viburnum	*Viburnum acerifolium*	D		P	→	S		M	→	X		3-6'	butterflies
Witherod viburnum	*Viburnum cassinoides*	D		F	→	S		M	→	SX		5-6'	butterflies
*Arrowwood	*Viburnum dentatum*	D		F	→	P		M	→	SX		6-8'	bees, bumble bees, butterflies, moths

* These plants can be vigorous growers and may need more management control													
Type													
D	Deciduous												
E	Evergreen												
Light													
F	Full sun												
P	Part sun												
S	Shade												
Soil Moisture													
H	hydric; wet, plants periodically or often inundated by water												
M	mesic; moist, adequate soil moisture retention year round												
SX	sub-xeric; moist to dry, seasonally moist, periodically dry												
X	xeric; dry &drought resistant little moisture retention, excessively drained												

Landscape and Open Space Mark-up

Sec. 46-120. – Landscape standards.

(a) *Applicability*. Landscape standards shall apply to all new major subdivisions with five or more lots.

(b) *Standards*.

(1) Street Trees. Street trees as described in Sec. 54-216 shall be required along all new and existing street frontages within or adjacent to the subdivision. Where lots abut both sides of a street, trees shall be required on each side.

(2) Open Space. A minimum of 15% of the total land area in the subdivision shall be set aside as open space. Open space shall meet the standards described in Sec. 54-216.

Sec. 46-1210. – Other requirements.

Sec. 46-1221. – Penalty

Sec. 54-10. Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Accessory use or structure means a use or detached structure subordinate to the principal use of a structure or land and located on the same lot or parcel serving a purpose customarily incidental or ancillary to the principal use or the principal structure.

Addition means an extension or increase in the floor area or height of a building or structure. Additions to existing buildings and structures shall comply with the requirements for new construction.

Adult entertainment establishment means any of the following subcategories, and for purposes of this ordinance shall be consistent with Chapter 14, Article 26A of the North Carolina General Statutes, including definitions found in section 14-202.10, as currently written or hereafter amended.

Agriculture and/or horticulture means the use of land for agricultural purposes including farming, silviculture, viticulture, fish culture, animal and poultry husbandry and/or horticultural purposes including the growing and production for income of fruits, vegetables, flowers, nursery stock, or ornamental plants.

Alteration means any change because of construction, repair, maintenance or otherwise to buildings that does not result in an increase in the gross floor area or expand the structure in any horizontal or vertical dimension.

Animal shelter means a facility that houses or contains animals that are seized, stray, homeless, quarantined, abandoned, or unwanted. Animal shelters are owned, operated, or maintained by a county, city, town, or other municipality, or by a nonprofit organization devoted to the welfare, protection, rehabilitation, or humane treatment of animals.

Applicant means a person or entity filing an application under this ordinance.

Application means any development application submitted to the Town of Woodfin for approval of a permit, site plan, certificate or any other authorization required for development and includes all forms, site plans and building plans as required by the Town of Woodfin.

Appraised value means the value assigned to a structure by the Buncombe County Tax Assessor or by an MAI-certified real estate appraiser.

Artificial slope shall mean any land disturbing activity that modifies an existing slope.

Bank and/or other financial institution means a financial institution that is open to the public and engaged in deposit banking, and that performs closely related functions such as making loans, investments, and fiduciary activities.

Billboard (See Outdoor advertising sign).

Board of adjustment means a quasi-judicial board composed of five residents of the Town of Woodfin empowered to hear appeals from decisions of the Zoning Administrator, grant variances from provisions of the zoning ordinance and grant special use permits.

Brewery means an establishment where beer and malt beverages are made on the premises at an annual beer production rate of over 15,000 barrels. A brewery of this scale is considered a heavy manufacturing use.

~~*Buffer strip* means a planted strip at least ten feet in width, composed of deciduous or evergreen trees or a mixture of each, spaced not more than 20 feet apart and not less than one row of dense shrubs, spaced no more than five feet apart.~~

Bufferyard means a linear strip of land combined with a vertical element such as plants, berms, fences, or walls, which physically separates and screens incompatible land uses.

Building means any structure used or intended for supporting or sheltering any use or occupancy.

Building frontage means the linear length of only that portion of a building used by an individual tenant in a multiple tenant development and which faces a public street or alley.

Building setback line means a line delineating the minimum allowable distance between the property line and a building on a lot, within which no building or other structure shall be placed except as otherwise provided. If the property line extends into a roadway or highway itself, then the setback line shall be measured from the edge of the traveled way (which is the edge of the road or the actual area that vehicles travel upon) when computing setback requirements on lots abutting highways.

Building supply sales yard means a business primarily engaged in selling building materials and construction supplies.

Campground means an outdoor area designed to accommodate non-permanent travel trailers, tents, cabins, camper vans, and recreational vehicles on a temporary basis. Electrical, cable, water and sewage hookups may be provided on site.

Canopy means a permanent attached structure which projects from and is supported by a building, which serves as a cover providing shelter or decoration and which extends beyond the building.

Car wash means a facility that is used to clean the exterior and/or interior of motor vehicles. Including but not limited to hand washing, coin-operated, automatic in-bay and tunnel washing.

Cemetery means a tract of land used for burials not associated with a place of worship.

Change of use means the act of eliminating the type of land use in a structure or on a lot and replacing it with another type of land use; or the act of adding another type of land use in a building or on a lot which did not previously exist there. A change of use may or may not involve any type of new construction or building renovation.

Channel means those flood lands normally occupied by a stream of water under average annual high-water flow conditions while confined within generally well-established banks.

Common plan of development means a construction or land disturbing activity is part of a larger common plan of development if it is completed in one or more of the following ways: In separate stages; in separate phases; or in combination with other construction activities. It is identified by the documentation (including, but not limited to, a sign, public notice or hearing, sales pitch, advertisement, loan application, drawing, plats, blueprints, marketing plans, contracts, permit application, zoning request, or computer design) or physical demarcation (including, but not limited to, boundary signs, lot stakes, or surveyor markings) indicating that construction activities may occur on a specific plot; it can include one operator or many operators.

Community center, club and/or lodge means any government or non-profit whose activities are conducted for civic or humanitarian motives and not for the gain of any private individual or group and may include, but shall not be limited to, recreation, social service, welfare, education, civic, fraternal, or cultural activities.

Concrete and/or asphalt plant means a manufacturing or processing plant in a fixed location associated with the storage of raw materials used in the production of concrete and the mixing of concrete products prior to their use or transportation.

Condominium means a dwelling unit within a multiple-unit property together with an undivided portion of ownership in areas and facilities held in common with other property owners in the development. Condominiums may take a number of forms such as attached townhouses, apartments, or other forms of residential structures. The common areas and structures may include underlying land, parking areas, recreation facilities, swimming pools, and in the case of an apartment house, hallways, basements, heating units, and elevators.

Conference and/or training center means facilities used for business or professional conferences, seminars, and training programs.

Cut slope shall mean the exposed ground surface resulting from excavation of material.

Critical root zone shall mean the minimum area beneath a tree which must be left undisturbed and protected from construction disturbance in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. The critical root zone is delineated by a concentric circle with the tree trunk as the center. The radius of the critical root zone equals one foot for every one inch of tree diameter. Example: a 20-inch diameter tree will have a critical root zone radius of 20 feet.

Data center and/or server farm means an establishment engaged in the storage, management, processing, and/or transmission of digital data, which houses computer and/or network equipment, systems, servers, appliances and other associated components related to digital data operations. Includes crypto-currency mining.

Day care center means an individual, agency, or organization providing supervision or care on a regular basis for children who are not related by blood or marriage to, and who are not the legal wards or foster children of the supervising adult.

Day care home means supervision or care provided on a regular basis as an accessory use within a principal residential dwelling unit, by a resident of the dwelling, for up to five children who are not related by blood or marriage to, and who are not the legal wards or foster children of the supervising adult OR for up to five adults who do not reside in the dwelling.

Development shall mean any man-made change to improved or unimproved real estate, including, but not limited to, new buildings and structures, including additions/expansions, mining, dredging, filling, grading, paving, excavation, or drilling operations.

Dimensional nonconformity means any lawful nonconformity involving a dimensional or numerical development requirement except those involving outdoor lighting or signs which are addressed in Chapter 26 and Chapter 34, respectively. Dimensional nonconformities may include, without limitation, nonconformities associated with lot size, lot width, lot depth, lot coverage setbacks, impervious surface standards, open space, number of parking spaces, or separation requirements between particular uses or zoning districts, and structure size and placement standards including height, gross floor area, footprint area, number of stories, build-to zone, fenestration, step-back and building frontage.

Disturbed areas shall mean any area subject to a *land-disturbing activity.*

Downhill sections shall mean areas of the property which fall ten feet or more in elevation within 50 feet of the structure.

Drive-through means a window or series of windows associated with a commercial establishment that permits patrons to transact business or order goods while remaining in a vehicle. A drive-thru service window shall only be permitted as an accessory use.

Dwelling means a building that contains one or two dwelling units used, intended or designed to be used, rented, leased, let or hired out to be occupied for living purposes.

Dwelling, accessory unit means a separate and complete dwelling unit that is ancillary and subordinate to a principal single-family dwelling located on the same lot. Accessory dwelling units may be either detached or attached to the primary dwelling.

Dwelling, multi-family means a building containing three or more dwelling units.

Dwelling, single-family detached means a home on an individual lot or parcel of land intended, designed, used, and/or occupied by no more than one family.

Dwelling, single-family means a dwelling containing one dwelling unit either attached, semi-attached, or detached.

Dwelling, single-family attached means a dwelling which occupies its own lot, but which is physically connected to one or more other dwellings. The lot line separating the lots is congruent with the part wall connecting the dwellings.

Eating and drinking establishment means any establishment whose principal business is the sale of food, frozen desserts or beverages to the customer in a ready-to-consume state, and whose design or method of operation provides for consumption of foods, frozen desserts or beverages within the restaurant building, within a motor vehicle parked upon the premises, off-premise consumption (to-go orders), or at other facilities on the premises outside the building. This definition does not include bars, nightclubs, lounges, hookah or cigar bars.

Eave line means the extension of a roof line beyond the vertical wall of a building.

Equipment rental means an establishment that rents or leases construction tools or equipment to an entity for a period of time but does not transfer ownership of the tools or equipment to the entity renting or leasing it.

Erect means to construct, build, raise, assemble, install, place, locate, relocate, affix, attach, display, alter, use, create, paint, draw, illuminate or in any other way bring into being or establish.

Essential service means publicly or privately owned facilities or systems for the distribution of gas, electricity, steam or water, the collection and disposal of sewage or refuse; the transmission of communications; or similar functions necessary for the provision of public services. Radio transmission facilities for use by ham radio operators or two-way radio facilities for business communications shall be deemed accessory uses and not under this definition as essential services, provided no transmitter or antenna tower exceeds 40 feet in height, with the exception of 100 feet for governmental communications. Wireless telecommunications are not included within this definition. Essential services are divided into three classes:

(1) *Class 1* means transmission lines (above and below ground) including electrical, natural gas, and water/wastewater distribution lines; small, enclosed facilities up to 200 square feet such as and including pumping stations, lift stations, and telephone switching facilities.

(2) *Class 2* means water storage tanks; package treatment plants; telephone switching facilities, substations, or other similar facilities used in connection with telephone, electric, steam, and water facilities greater than 200 square feet; raw water treatment facilities; battery storage facilities when accessory to a substation.

(3) *Class 3* means generation, production, or treatment facilities such as power plants, sewage/septage treatment facilities, recycling sorting operations, compost and mulching yards. But does not include solid or hazardous waste landfills, construction and demolition landfills.

Event venue, indoor means a fully enclosed and conditioned space to watch and/or to hear athletic events, musical/dramatic performances, including auditoriums, arenas, stadiums, coliseums, athletic centers and theaters. Use of a membrane structure (e.g. tent) does not qualify as an indoor venue.

Event venue, outdoor means an outdoor or partially enclosed space to watch and/or to hear athletic events, musical/dramatic performances including auditorium, arena, stadium, coliseums, athletic centers, theaters, and drive-in theaters.

Expansion means any construction that increases the size of a building or structure in terms of site coverage, height, length, width, or gross floor area.

Façade means building sides including parapet and wing wall.

Familial relationship, close means a spouse, parent, child, brother, sister, grandparent, or grandchild. The term includes the step, half, and in-law relationships.

Family means any number of related persons, or up to five unrelated persons, living together as a single housekeeping unit.

Family care home means a home that provides room, support and supervision to no more than six persons with disabilities as defined in G.S. 160D-907(a)2.

Fill slope shall mean the exposed ground surface resulting from deposition of material.

Flag lot means a type of lot whose shape resembles a flag and where the access to the road is commonly provided along a long narrow flagpole, and the shape of the buildable portion of the lot is rectangular, similar to a flag.

Forested areas shall mean an ecosystem supporting a dense growth of trees covering a large area.

Freight terminal means a collection and distribution point for trucks or freight.

Fuel oil dealer means a facility and business used to warehouse and dispense various types of fuel oil.

Funeral home and/or mortuary means a building or part thereof used for human funeral services. Such building may contain space and facilities for:

(a) Embalming and the performance of other services used in the preparation of other services used in the preparation of the dead for burial;

(b) The performance of autopsies and other surgical procedures;

(c) The storage of caskets, funeral supplies funeral urns, and other related funeral supplies;

(d) Facilities for cremation where funeral home is permitted, a funeral chapel shall also be permitted.

Geotechnical assessment shall mean a comprehensive analysis of soil type(s), composition, and characteristics (colluvial, cohesive or expansive, pH, water retention, etc.) conducted pursuant to proposed development of a building site.

Governing body means, as it pertains to this ordinance, Town of Woodfin Town Council as authorized by NC General Statute or the town council.

Grade means the average level of the finished surface of the ground adjacent to the exterior walls of the building.

Gross floor area means the total floor area of all buildings in a project including basements, mezzanines, and upper floors, exclusive of stairways and elevator shafts. Gross floor area excludes separate service facilities outside the main building such as boiler rooms and maintenance rooms.

Group care home means a residential facility requiring a license by the state of NC housing 12 or fewer persons.

Group living means any residential facility, dwelling unit, and/or combination thereof that does not meet the definition of a family care home or group care home; examples include boarding/rooming houses, half-way homes, dwellings occupied by six or more unrelated persons, fraternity and sorority houses. Lodging uses are not included under this definition.

Height, building means the average of the shortest and tallest sides of a building, from the tallest peak of the roof to the base of the building at grade. Chimneys, ventilators, antennas, skylights, tanks, bulkheads, or solar panels shall not be considered part of the height of the building if they do not extend more than four feet above the specific height limit. Domes, towers, or spires which are an integral part of institutional buildings shall not be subject to these limitations, provided that such features shall in no way be occupiable space.

Height, structure means the greatest vertical distance from the top of the structure to the base of the structure at grade.

Home occupation means an accessory use of a dwelling unit or an accessory structure for limited non-residential purposes which is clearly incidental and subordinate to the use of the dwelling unit as a permanent and full-time residence.

Hospital means an institution for health care providing patient treatment by specialized staff and equipment, and often, but not always providing for longer-term patient stays.

Impact means the effect of one land use upon another as measured by traffic or noise generation, site activity, hours of operation, site lighting, vibration, smoke or odor emissions, or similar factors.

Impervious surface shall mean any surface that does not allow water to percolate through, or significantly penetrate, for natural absorption by the ground within a 24-hour period, including but not limited to: rooftops, parking/driving areas finished with asphalt, concrete, or densely compacted gravel, patios, or pools.

Junkyard means a lot, land, or structure or part thereof, used primarily for the collecting, storage, and sale of waste paper, rags, scrap metal, or discarded material; or for the collecting, dismantling, storage and/or salvaging of machinery or vehicles not in operating condition and for the sale of parts thereof. Shall also include any outdoor area containing more than five motor vehicles that do not display a current license plate, or are partially dismantled or wrecked, or cannot be self-propelled or moved in the manner in which it is intended to move.

Kennel means a commercial establishment wherein any person engages in business or practice, for fee, of boarding, breeding, letting for hire, or training of multiple domesticated animals at any one time, not including pets owned by the landowner; or an establishment wherein any person engages in the business or practice, for a fee, of selling more than one litter of domesticated animals at any one time.

Laboratory means an analytical, experimental or testing facility that provides controlled conditions in which scientific research, experiments, and measurement may be performed.

Land-disturbing activity shall mean any use of the land by any person in a residential, industrial, educational, institutional, or commercial development, highway and road construction, and maintenance that results in a change in the natural cover or topography.

Landfill means a facility for disposal of solid waste on land in a sanitary manner, in accordance with rules concerning sanitary landfills set by the NC Department of Environmental Quality, called for in G.S. ch. 130A. Construction and demolition landfills are also included in this definition.

Laundromat means a facility where patrons wash, dry, or dry clean clothing or other fabrics in machines operated by the patron.

Lawful nonconformity means any nonconformity involving a dimensional or numerical requirement or use of property that affects a structure erected or a lot created in conformity with the then-applicable development requirements of the town, but subsequently made nonconforming by action of the town through a zoning map or text amendment. For non-construction related purposes such as but not limited to, financing, appraisals, or zoning verification, a lawful nonconformity shall be regarded as conforming.

Library, museum and/or art gallery means a room or building for exhibiting, or an institution in charge of, a collection of books, artistic, historical, or scientific objects.

Lodging means any land use contained within a building or series of buildings under single ownership providing accommodations to transients for compensation, offering either short or extended-stay facilities, and that may customarily include incidental or ancillary services including housekeeping, dining, meeting rooms and

recreational facilities that includes the renting of room(s) for transient stays. This includes any of the following hotels, motels, bed and breakfast inns, and short-term rentals. Use of a dwelling, or any portion thereof, rented or leased for intervals of less than one month is considered a "lodging" use.

Lot shall mean a parcel of land occupied or intended for occupancy by one or more uses permitted in the Town of Woodfin Zoning Ordinance, including the principal building and all accessory building(s), and having its principal frontage upon a dedicated street.

Lot coverage means the area under a roof and enclosed by the exterior permanent walls.

Lot of record means any lot or parcel of land that was lawfully created and recorded by a subdivision or a lawfully created unit of land that was created by deed or land sales contract prior to the town's subdivision regulations.

Lot width means the distance between the side lines of a lot measured at the front building setback line.

Lot, corner means a lot abutting two or more streets at their intersection, provided that the corner of such intersection has an angel of 135 degrees or less, measured on the lot side.

Manufactured home—Class A means a multi-section manufactured home with a permanent, masonry perimeter curtain wall, having siding consistent with standard residential construction and built/constructed in accordance with the standards established by the North Carolina Department of Insurance as set forth in the most current edition of the State of North Carolina Regulations for Manufactured Homes.

Manufactured home—Class B means a manufactured home that does not meet the definition of a manufactured home—Class A, meeting the following appearance criteria: Continuous skirting under all sides of the home except for required ventilation and access; skirting shall be installed no later than 60 days after the set-up of the home, and built/constructed in accordance with the standards established by the North Carolina Department of Insurance as set forth in the most current edition of the State of North Carolina Regulations for Manufactured Homes.

Manufactured home—Class C means any manufactured home built before 6/15/1976 and does not meet the definitional criteria of a manufactured home—Class A or manufactured home—Class B.

Manufactured home lot means any space, area, or tract of land, or portion of a manufactured home community (park), which is designated or used for occupancy by one manufactured home.

Manufactured home park means a parcel (or contiguous parcels under common ownership) of land which has been so designated and improved that it contains three or more manufactured home lots available to the public for the placement thereon of manufactured homes for occupancy.

Manufactured home space means any lot within a manufactured home community (park), which is designated or used for occupancy by one manufactured home.

Manufacturing, heavy means the assembly, fabrication, or processing of goods and materials using processes that have greater than average impacts on the environment, or that ordinarily have significant impacts on the use and enjoyment of adjacent property in terms of noise, smoke, fumes, odors, glare, vibrations, or health and safety hazards; or that otherwise do not constitute "light manufacturing;" or any use where the area occupied by outdoor storage of goods and materials used in the assembly, fabrication, or processing exceeds 25 percent of the floor area of all buildings on the lot.

Manufacturing, light means the assembly, fabrication, or processing of goods and materials using processes that do not create noise, smoke, fumes, odors, glare, vibrations, or health or safety hazards outside of the building or lot where such assembly, fabrication, or processing takes place; where such processes are housed entirely within a building; or where the area occupied by outdoor storage of goods and materials used in such processes does not exceed 25 percent of the floor area of all buildings on the property.

Medical office means the clinic or office of physicians, medical doctors, chiropractors, or dentists licensed to practice medicine or dentistry in the State of North Carolina, where the primary use is the delivery of health care services, where sale of merchandise is incidental to the delivery of services. This use includes addiction recovery

facilities that provide for the treatment of persons having drug or alcohol abuse problems under the supervision of professional health care or social services providers, where no overnight accommodations are provided.

Microbrewery means an establishment where beer and malt beverages are made on the premises and then sold or distributed, and which produces less than 15,000 barrels (a barrel is approximately 31 gallons) of beer per year. Microbreweries must sell 25 percent or more of its beer on-site and does not include an eating and drinking establishment.

Mining means the breaking of the surface soil in order to facilitate or accomplish the extraction or removal of minerals, ores, or other solid matter; any activity or process constituting all or part of a process for the extraction or removal of minerals, ores, and other solid matter from its original location; and the preparation, washing, cleaning, or other treatment of minerals, ores, or other solid matter so as to make them suitable for commercial, industrial, or construction use; and shall not include excavation or grading when conducted solely in aid of on site farming or construction.

Motor vehicle repair garage means any building, structure, improvements, or land used for the storage, care, repair, or refinishing of motor vehicles including both minor and major mechanical overhauling, paint and body work. Also referred to as vehicle repair shop. Junk vehicles or the operation of an automobile wrecking and junking yard are not permitted as part of this use.

Motor vehicle sales mean storage and display for sale of more than two motor vehicles or any type of trailer provided the trailer is unoccupied, and where repair or body work is incidental to the operation of the new or used vehicle sales includes motor vehicles retail or wholesale sales. Sales of boats, recreational equipment, ATVs, motorcycles, trailers, tractors, and travel trailers are included within this definition.

Motor vehicle service station means any premises where gasoline and other petroleum products are sold, and light maintenance activities are performed. Also called a gas station.

Multi-tenant development means a development in which there exists a number of individual and or separate activities and in which there are appurtenant shared facilities (such as parking areas or pedestrian mall areas).

Nightclub, bar and/or lounge means any commercial establishment serving alcoholic beverages and/or providing entertainment for patrons that do not operate significant food services.

Nonconforming lot means any lot of record which does not meet the minimum area, width or open space requirements established in these regulations or any amendment thereto, whichever may be applicable.

Nonconforming open use of land means a use not enclosed by a building and which was in existence prior to the effective date of this chapter or at the time the lot was brought into the town's jurisdiction, and which would not be permitted by this chapter in the zoning district in which it is located. An open use of land may be the principal use or ancillary to another use on the property.

Nonconforming structure means any structure, lawfully existing on the effective date of these regulations or on the effective date of any subsequent amendments to these regulations or the zoning maps which render such structure nonconforming, which does not comply with all standards and regulations of this ordinance or any amendments thereto, whichever may be applicable.

Nonconforming use means a nonconformity involving the use of the property when that use was lawfully established. This may include, without limitation, nonconformities associated with a use not permitted in the zoning district in which it is located, a use specially allowed in the zoning district in which it is located but for which no special use permit has been obtained, or residential density that exceeds the maximum permitted in the zoning district in which it is located.

Office means administrative, executive, professional, research, or similar organizations, and laboratories having only limited contact with public, provided that no merchandising services are sold on the premises, except such as are incidental or accessory to the principal permissible use.

Outdoor advertising sign or billboard means an offsite sign means a sign which directs attention to a business, commodity, service, good, product, entertainment, or similar enterprise not related to the site upon which such sign is located or to which it is affixed.

Outdoor storage means the storage of any material for a period greater than 24 hours not in an enclosed building. Outdoor storage may be standalone or ancillary to another use.

Parapet means that portion of a building wall that rises above the roofline.

Park and/or playground means a place, structure, area, or facility used for one or more sports or recreation activities such as, but not limited to, bowling, skating, water sports, baseball, basketball, tennis, golf, riding, hiking, fishing or similar sports or recreational uses and providing social or recreational programs generally open to the public and designed to accommodate and serve significant segments of the community.

Parking lot means any place maintained for the outdoor parking of motor vehicles not associated with another use. Parking lots do not include parking on public streets.

Parking space means a graded and surfaced area of at least nine feet wide and 19 feet long, either enclosed or open, for the parking of a motor vehicle, having adequate ingress or egress to a public street or alley.

Parking, off-street means a designated area intended to support another use(s) by providing space for temporary storage of motor vehicles for employees, residents, and visitors.

Permanently affixed means anchored to a foundation.

Personal service means a business providing personal or household services typically by appointment or on a walk-in basis during normal business hours with some limited weekend hours. Examples include barber and beauty shops, nail salons, spas, shoe repair, tailors, massage therapists, and other personal or household services accomplished on site.

Place of worship means a building wherein persons regularly assemble for religious worship and which is maintained and controlled by a religious body organized to sustain public worship, together with all accessory buildings and uses customarily associated with such primary purpose. Includes synagogue, temple, mosque, or other such place for worship and religious activities.

Planar surface is defined as the combined exterior surface area of all vertical surfaces within a single face of the structure.

Planning board means an advisory board composed of seven residents of the Town of Woodfin that provides recommendations to the Woodfin Town Council on legislative requests for conditional rezonings, general rezonings, and text amendment to the zoning ordinance.

Prefabricated home display area means any business engaged in the sale and distribution of prefabricated homes for resale. Including, but not limited to manufactured and modular homes.

Principal use means the primary use and chief purpose for which a lot is used.

Prison means a facility, public or private, established for the temporary placement of persons who require secure custody for their own or the community's protection in physically restricting facilities.

Public safety facility means a government facility for public safety and emergency services, including a facility that provides police or fire protection and related administrative facilities. The term shall not include jails, prisons, hospitals, or institutional and commercial services.

Public transportation means transportation of passengers whether or not for hire by any means of conveyance, including but not limited to motor vehicle or motor bus, either publicly or privately owned and operated, holding itself out to the general public for the transportation of persons within the territorial jurisdiction of the authority, including charter service.

Public works facility means a government facility for public works services, such as refuse collection, street and building maintenance, parks and land management, vehicle maintenance, parking, and associated accessory uses.

Radio and/or television station means establishments primarily engaged in the provision of broadcasting and other information relay services accomplished using electronic and telephonic mechanisms excluded are facilities classified as major utility services or broadcasting or communication towers typical uses include television studios, telecommunication service centers, telegraph service offices, or film and sound recording facilities.

Recreational facility, indoor means any business establishment which is primarily engaged in providing an amusement and/or recreational activity within a fully enclosed building such as a public or private health or exercise clubs, tennis or other racquet courts, swimming pools, video arcade, billiard parlor, skating rink, bowling alley, axe throwing, or similar uses which are enclosed in buildings, but does not include indoor motion picture theaters, adult establishments, or shooting ranges.

Recreational facility, outdoor means any business establishment which is primarily engaged in providing amusement and/or recreational activities that are outside of a fully enclosed building that include but not limited to, miniature golf, skateboard parks, paintball, water slide and swimming pools, batting cages, laser tag, mechanical ride, golf course, golf driving range, go-cart or motorcycle course, fish ranch, or similar activity to the general public, but does not include outdoor motion picture theaters or shooting ranges.

Recreational vehicle/travel trailer means a travel trailer which may operate independently of connections to electricity, water, and sewer for a limited period of time, having its own battery or LP gas system or both, to operate lights, refrigerator, stove, and heater; having a water tank with a pressure system; and having a holding tank with a toilet. A travel trailer shall not be used as a dwelling.

Recycling drop-off center means a facility where residents may drop off recyclable materials, typically unstaffed.

Recycling facility means an establishment primarily engaged in (1) operating facilities for separating and sorting recyclable materials from nonhazardous waste streams (i.e., garbage); and/or (2) operating facilities where commingled recyclable materials such as paper, plastics, used beverage cans, and metals are sorted into distinct categories.

Regulated tree shall mean all native trees of with a caliper of three or more inches when measured six inches above the root ball and any mature grouping of rhododendron or mountain laurel of 250 square feet or more in area. Invasive non-native species shall not be included in this definition.

Rehab and/or skilled nursing facility means a facility that provides residentially based services for people who require constant nursing care and have significant deficiencies with activities of daily living. Residents include the elderly and younger adults with physical or mental disabilities.

Renovation means the repairing or remodeling of a structure in which the exterior walls, foundation and roof are maintained structurally intact.

Retail establishment means a commercial enterprise that provides goods and/or services directly to the consumer, where such goods are available for immediate purchase and removal from the premises by the purchaser, where products include but are not limited to clothing, fabric, shoes, varieties, notions, drugs, hardware, furniture, appliances, floor coverings, paints, antiques, art goods, jewelry, gifts, music, toys, sporting goods, books and stationary, magazines, candy, tobacco, pets, hobbies, and crafts. Manufacturing, wholesale, bulk storage, and/or processing is not considered a retail use. Uses specifically enumerated in the Table of Uses shall follow the more specific standards.

Retail, large means any building or collection of buildings as part of a single development greater than 20,000 square feet gross floor area.

Retail, small means any building or collection of buildings as part of a single development that are 20,000 square feet or less in gross floor area.

Revegetation shall mean reintroducing native plant species, as defined by the Natural Resource Conservation Service of the United States Department of Agriculture, into a disturbed area to restore native plant communities, mitigate erosion and landslides, and minimize the expansion of non-native invasive plants.

Sawmill means a facility where logs or partially processed cants are sawn, split, shaved, stripped, chipped, or otherwise processed to produce wood products, not including the processing of timber for use on the same lot by the owner or resident of that lot.

School means an institution where academic instruction is given to persons K—12. School, post-secondary means a public or private educational institution providing higher education that grants associate degrees or higher, or specific professional or vocational training.

Self-storage warehouse means a building or group of buildings in a controlled-access and fenced compound that contains varying sizes of individual, compartmentalized and controlled-access stalls or lockers for the dead storage of customers' goods or wares.

Setback line means a line delineating the minimum allowable distance between the property line and a building on a lot, within which no building or other structure shall be placed except as otherwise provided.

Shooting range, indoor means an indoor area designed and operated for the use of rifles, shotguns, pistols, silhouettes, skeet, trap, black powder, or any other similar sport shooting.

Shooting range, outdoor means an outdoor area designed and operated for the use of rifles, shotguns, pistols, silhouettes, skeet, trap, black powder, or any other similar sport shooting.

Short-term rental (STR) means a lodging use that occurs within a single dwelling unit containing a maximum of three bedrooms that is rented to transients for compensation for a period of less than one month. (See Lodging).

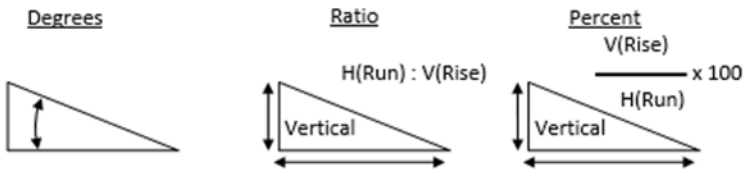
Sign, on-site means any sign, the content of which relates to the site on which it is located, referring exclusively to businesses, commodities, services, products, goods, entertainment, or similar enterprise on the site, or the sale, lease, or construction of those sites. On-site signs do not include signs erected by the outdoor advertising business.

Single tenant means a single business establishment, activity or use.

Site plan means a scaled drawing and supporting text showing the relationship between lot lines and the existing or proposed uses, buildings, or structures on the lot. The site plan may include site-specific details such as building areas, building height and floor area, setbacks from lot lines and street rights-of-way, intensities, densities, utility lines and locations, parking, access points, roads and stormwater control facilities that are depicted to show compliance with all legally required development regulations that are applicable to the project and the site plan review. A site plan approval based solely upon application of objective standards is an administrative decision, and a site plan approval based in whole or in part upon the application of standards involving judgment and discretion is a quasi-judicial decision. A site plan may also be approved as part of a conditional zoning decision.

Skirting means a weather-resistant material used to enclose the perimeter, under the living area of the home, from the bottom of the manufactured home to grade.

Slope shall mean the extent to which a landform deviates from the perfectly horizontal as expressed in percent, degree or ratio. To ensure consistent conversion between these separate methods of expressing the extent of slope, the following explanatory table is provided as part of this definition.



Degrees Horizontal		Horizontal
45°	1H:1V	100%
39°	1.25H:1V	80%
34°	1.5H:1V	67%
30°	1.75H:1V	57%
27°	2H:1V	50%
22°	2.5H:1V	40%
18°	3H:1V	33%
14°	4H:1V	25%
8.5°	6.7H:1V	15%

Snags shall mean any dead or dying standing tree. For wildlife purposes, snags should be at least three inches in diameter at breast height (dbh) and at least six feet tall. Snags may develop cavities which either occur naturally or are excavated by birds and mammals. The removal of snags can negatively impact wildlife populations that are dependent on them as essential habitat components. Generally, the value of a snag tree increases as its size increases. To assure that the minimum requirements of most wildlife species are being met, three snags of 12 inches dbh or greater should be available per acre. A minimum of one 15-inch dbh or greater diameter den tree should also remain per acre.

Soffit means the underside of a structural component such as an arch, beam or cornice.

Solar farm means a use where a series of solar collectors are placed in an area for the purpose of generating photovoltaic power for an area greater than the principal use on the site. Also referred to as solar power plant and solar photovoltaic farm.

Special event means a temporary outdoor activity held on public or private property, including, but not limited to, seasonal sales, the display of goods and merchandise associated with a retail use, community or cultural events, music or arts events, performances, celebrations/parties, festivals, fairs, and carnivals.

Street frontage means that portion of a lot abutting a publicly maintained street or alley.

Structure means any erection or construction, such as buildings, towers, mash poles, booms, signs, decorations, carports, machinery, and equipment excluding utility lines and appurtenances.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. Improvements, modifications, and additions to existing buildings are counted cumulatively for at least three years.

Substantial improvement means any repair, reconstruction, rehabilitation, addition, renovation, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the fair market value of the structure before the start of construction of the improvement or when an existing building is structurally altered such that the gross floor area is increased by more than 25 percent. Improvements, modifications, and additions to existing buildings are counted cumulatively for three years. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either: (1) any project of improvement of a structure to correct existing violations of state or local health, sanitary, or safety codes specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe conditions; or (2) any alteration of an historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Temporary health care structure means a transportable residential structure providing an environment facilitating a caregiver's provision of care for a mentally or physically impaired person that (i) is primarily assembled at a location other than its site of installation, (ii) is limited to one occupant who shall be the mentally or physically impaired person, (iii) has no more than 300 gross square feet, and (iv) complies with applicable provisions of the State Building Code and G.S. 143-139.1(b).

Trademark means a name, symbol, or other device identifying a product which is officially registered and legally restricted to the use by its owner.

Truck stop means an establishment engaged primarily in the fueling, servicing, repair or parking of tractor trucks or similar heavy commercial vehicles, including the sale of accessories and equipment for such vehicles. A truck stop may also include overnight accommodations, showers, or restaurant facilities primarily for the use of truck crews.

Use means the purpose or activity for which the land or building thereon is designed, arranged, or intended, or for which it is occupied or maintained.

Utilities means public, quasi-public or private facilities such as water well water and sewage pumping stations, water storage tanks, power and communications transmission lines, electrical power substations, static transformer stations, telephone and telegraph exchanges, microwave radio relays, gas regulation stations, sewage disposal plants, sludge incinerators, warehouses, shops, and storage yards.

Veterinary clinic means a use or structure intended or used primarily for the testing and treatment of the physical disorders of animals; not principally used for the overnight boarding or grooming of well animals; not permitting outdoor cages, pens, or runs for the confinement of animals unless expressly permitted in the district; and not used for the training of animals.

Vision clearance means an unoccupied triangular space at the intersection of highways or streets with other highways or streets or at the intersection of highway or streets with railroads. Such vision clearance triangle shall be bounded by the intersection highway, street, or railroad right-of-way lines and a setback line connecting points located on such right-of-way lines by measurements from their intersection as specified in this chapter.

Warehouse means a commercial building for storage of goods. Warehouses are used by manufacturers, importers, exporters, wholesalers, transport businesses, etc. Self-storage is not included within this definition.

Wholesale storage means a facility engaged in the storage or movement of goods for themselves or other businesses. Goods are generally delivered to other businesses or the final consumer, except for some will-call pickups. There is little on-site sales activity.

Wireless telecommunication, co-location means the placement, installation, maintenance, modification, operation, or replacement of wireless facilities on, under, within, or on the surface of the earth adjacent to existing structures, including utility poles, city utility poles, water towers, buildings, and other structures capable of structurally supporting the attachment of wireless facilities in compliance with applicable codes. Attachment to existing utility owned transmission towers (e.g. high-tension power line support towers) may be permitted as a co-location type. The term does not include the installation of new utility poles, city utility poles, or wireless support structures. When placed on existing towers, there must be no increase in height of existing tower and must present a site plan showing the location of equipment structures to be located within previous approved fenced-in area.

Wireless telecommunication, concealed means a tower, ancillary structure, or equipment compound that is not readily identifiable as such, and is designed to be aesthetically compatible with existing and proposed building(s) and uses on a site.

Wireless telecommunication, tower means a tower erected for the purpose of transmitting or receiving signals, including, without limitation, telephone, radio, television, cable television, or microwave signals.

Yard means a space on the same lot with a principal building, open, unoccupied and unobstructed by buildings or structures from ground to sky, except where encroachments and accessory buildings are expressly permitted.

Yard, front means an open, unoccupied space on the same lot with a principal building, extending the full width of the lot and situated between the street or property line and the front line of the building projected to the side lot lines of the lot.

Yard, rear means an open, unoccupied space on the same lot with the principal building, extending the full width of the lot and situated between the rear line of the lot and the rear line of the building projected to the side lot lines of the lot.

Yard, side means an open, unoccupied space on the same lot with a principal building, situated between the building and the side lot line extending from the rear line of the front yard to the front line of the rear yard.

Zoning administrator means the Town of Woodfin employee or employees appointed by the town manager to have overall responsibility for the enforcement and interpretation of this ordinance, to include zoning officers, planners and the planning director.

Sec. 54-156. Conditional Districts.

Subsection (e)(4)

(4) *Application submittal and acceptance.* ~~This zoning option is intended only for development proposals that are ready to proceed from plan approval to construction in a timely manner. As a result, each project must include a site plan that meets the requirements listed [in section] 54-157, as modified by any site-specific conditions, as well as any other plans, drawings, renderings, elevations, maps and documents specifically included as development documents for approval.~~

a. All applications for conditional zoning shall be accompanied site plan(s) prepared by a licensed professional, drawn to scale, and that includes all applicable information as identified on the site plan checklist supplied by the Planning Department, in addition to any other plans, drawings, renderings, elevations, maps and documents specifically included as development documents for approval.

b. *Formal staff review.* Town staff shall review the ~~Master Plan~~ application materials to identify issues or concerns with the proposed development and determine compliance with the requirements of this chapter and other applicable development standards. Town staff will provide detailed comments to the ~~applicable~~ reviewing board regarding issues identified and recommend any ~~needed~~ necessary changes or conditions to the ~~Master Plan~~ application materials to bring it into compliance with ~~the requirements of this chapter and/or other legal requirements~~ all applicable development requirements and the town's comprehensive plan.

c. *Public hearing, planning board recommendation, and town council ~~board of commissioners~~ decision.* The conditional zoning district rezoning approval decision is a legislative process subject to judicial review using the same procedures and standard of review as apply to general use district zoning decisions. The conditional zoning application shall be considered and treated as a zoning map amendment. In considering any petition for a conditional zoning district rezoning, the town shall follow all of the procedures set forth in section 54-~~72~~ 69.

d. *Planning board recommendation and town council decision.*

e. *Conditional zoning document recordation.* All approved conditional zoning ordinances, in addition to any site and building plans that are referenced in the associated project conditions shall be recorded with Buncombe County Register of Deeds. A copy of the recorded documents must be supplied to the Planning Department within 30 days of approval.

Sec. 54-157. Site plan requirements.

(a) *Site plan required.* All applications for zoning permits shall be accompanied by a site plan(s) identifying all applicable information listed in the site plan checklist(s) kept on file with the Town of Woodfin Planning Department.

~~All applications for conditional zoning shall be accompanied by two sets of plans drawn to scale showing:~~

~~a. The boundary/property lines of the property being developed as well as the location of the property lines which interest the boundaries of the property being subdivided or developed:~~

~~b. Water courses (including all perennial and intermittent streams) and flow paths on the land to be developed:~~

~~c. Location of existing and proposed conveyance systems and concentrated flows such as grass channels, swales and storm drains as well as the location of ponds;~~

~~d. Contour map of two-foot intervals extending 100 feet beyond the property boundary: Wetland limits (with a copy of appropriate federal and state permits). If permits have not been obtained, permit applications are to be submitted. Verification to be submitted with preliminary plans;~~

~~e. Impervious area calculations:~~

~~f. The location, names and rights-of-way of any existing street(s) on or within 300 feet of the land to be subdivided or developed;~~

~~g. Rough finished grades and the location of any building restriction flood lines:~~

~~h. The location of proposed streets (include street cross sections), buildings, parking areas and other impervious surfaces as well as the location of parks or other open spaces:~~

~~i. Zoning information for the proposed project site and adjacent properties:~~

~~j. The location and width of required stream and/or lake buffers:~~

~~k. Preliminary selection and location of proposed structural stormwater controls to be installed for compliance with the appropriate post-construction stormwater ordinance;~~

~~l. Location of undisturbed open space as required by the ordinance;~~

~~m. The scale of the plan, which shall not be smaller than 100 feet to the inch, the north point and the date; and~~

~~n. A small scale vicinity map.~~

~~Site Analysis Required:~~

~~a. Existing use of land (i.e., single-family, farm or vacant);~~

~~b. Boundaries and description of existing vegetation;~~

~~c. Existing drainage pattern, including the area up to 300 feet from perimeter of property;~~

~~d. Soil types (if applicable, identify areas suitable for septic field location);~~

~~e. Slope analysis (identification of moderate and steep slopes; e.g., ten percent to 25 percent and greater than 25 percent);~~

~~f. Existing utility right-of-way (overhead power lines, sewer easements, etc.);~~

~~g. Location and description of environmentally sensitive features or natural resource areas that provide opportunities or constraints for development; and~~

~~h. Existing creek and buffer condition.~~

~~Additional Site and Development Specific Information Required:~~

~~a. Proposed limits of clearing and grading;~~

~~b. Description of proposed creek crossings (i.e., method for crossing, materials, permits required to cross);~~

~~c. All proposed and existing landscaping which will remain, including street trees;~~

~~d. Earthen berm detail (i.e., location, height);~~

~~e. Common/public open space (provide acreage and planned improvements);~~

~~f. Required front, rear, side yard setbacks and dimensional lot requirements;~~

~~g. Proposed utility information (public water, sewer, well, septic or community well);~~

~~h. Right-of-way cross section(s), (existing and proposed) and include the cross section identified in the Comprehensive Transportation Plan;~~

~~i. Preliminary architectural renderings with depictions of elevations exposed to the public street, if applicable;~~

~~j. Pedestrian connectivity plan (existing and proposed infrastructure to accommodate pedestrians) and identify pedestrian routes to schools, common areas, commercial areas or proposed greenways, etc.;~~

~~k. Range in lot sizes; and~~

~~l. Cul-de-sac usage requires a description that justifies its use (i.e., to prevent crossing creek, wetland etc.).~~

Sec. 54-214. Steep slopes.

(a) *Purpose.* The purpose of this section is to regulate development in steep slope areas to preserve the Town of Woodfin's unique character, conserve the public health, safety, and general welfare and to promote environmentally sound design and planning in accordance with the following objectives:

- To protect life and property from all potentially hazardous conditions particular to steep slopes, e.g., rock falls, flash flooding, debris flows, mud slides and increased wildfire hazard.
- To preserve and enhance the scenic and environmental resources of the landscape by encouraging the maximum retention of prominent natural topographic features, i.e., drainage swales, streams, slopes, ridgelines, rock outcroppings, vistas, natural plant formations, and trees.
- To encourage innovative site and architectural design and planning for the development to adapt to the natural terrain and be harmonious with the character of the area.
- To minimize grading and cut and fill operations inconsistent with the retention of the natural character of the hillside.
- To preserve, where possible, natural streams, ponds and associated riparian vegetation.
- To require the retention of trees and other vegetation to stabilize steep hillsides, retain moisture, prevent erosion, and enhance the natural scenic beauty.
- To encourage the retention of trees and other vegetation throughout the site instead of just the periphery of the development.
- To encourage minimal grading which relates to the natural contour of the land, thus rounding off sharp angles at the top and bottom of cut and fill slopes in a natural manner.
- To provide land use densities to promote the best possible development of hillside areas to retain significant natural features and to preserve slope stability.
- To encourage road design that follows the natural topography wherever possible to minimize grading.

- To preserve predominant views from and of the hillside areas to retain the sense of identity and imagery that the hills and mountains now impart to the Town of Woodfin.

(b) *Determining steep slope areas.* For the purposes of this section, steep slopes are defined as: (1) any lot, parcel, tract, or portion thereof, that has a natural elevation of 2,200 feet above mean sea level or higher and has an average natural slope of 20 percent or greater, or (2) that has a natural elevation of 3,000 feet above mean sea level or higher, regardless of slope.

For the purposes of this section, slope means the average natural slope of an entire parcel. The average natural slope for the parcel shall be calculated using the following formula.

$\underline{S = .0023(I)(L)}$ A	Where: S = Existing grade of parcel in percent I = Contour interval of map in feet, with said contour intervals to be five feet or less L = Total length of the contour lines within the parcel in feet A = Area of the parcel in acres 0.0023 = Product of two constants, one of which converts feet into acres and one of which converts a decimal into a percentage

(c) *Applicability.* Steep slope standards shall apply to the following:

(1) New building construction and individual lot improvements, including but not limited to drives, retaining walls, utilities, and stormwater controls.

(2) Communal infrastructure including, but not limited to, roadways, shared drives, public utilities, public facilities, and stormwater controls, when installed in accordance with an approved major subdivision plan. For the purpose of applying this section, approval of a subdivision plat shall not constitute approval of a development plan for the individual lots in the subdivision, which shall be reviewed under separate applications.

(3) Building elements exempted from steep slope standards shall include:

a. Individual septic systems.

b. Expansions to existing structures applied for on or before February 15, 2022, that are less than 500 square feet.

(d) *Reserved.* ~~*Definitions.* The following words, terms, and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:~~

~~*Artificial slope* shall mean any land disturbing activity that modifies an existing slope.~~

~~*Building* shall mean a structure that is designed or intended for support, enclosure, shelter or protection of person, animals or property having a permanent roof and walls.~~

~~*Cut slope* shall mean the exposed ground surface resulting from excavation of material.~~

~~*Critical root zone* shall mean the minimum area beneath a tree which must be left undisturbed and protected from construction disturbance in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. The critical root zone is delineated by a concentric circle with the tree trunk as the center. The radius of the critical root zone equals one foot for every one inch of tree diameter. Example: a 20-inch diameter tree will have a critical root zone radius of 20 feet.~~

~~*Development* shall mean any man-made change to improved or unimproved real estate, including, but not limited to, new buildings and structures, including additions/expansions, mining, dredging, filling, grading, paving, excavation, or drilling operations.~~

~~*Disturbed areas* shall mean any area subject to a *land-disturbing activity.*~~

Downhill sections shall mean areas of the property which fall ten feet or more in elevation within 50 feet of the structure.

Fill slope shall mean the exposed ground surface resulting from deposition of material.

Forested areas shall mean an ecosystem supporting a dense growth of trees covering a large area.

Geotechnical assessment shall mean a comprehensive analysis of soil type(s), composition, and characteristics (colluvial, cohesive or expansive, pH, water retention, etc.) conducted pursuant to proposed development of a building site.

Impervious surface shall mean any surface that does not allow water to percolate through, or significantly penetrate, for natural absorption by the ground within a 24-hour period, including but not limited to: rooftops, parking/driving areas finished with asphalt, concrete, or densely compacted gravel, patios, or pools.

Land-disturbing activity shall mean any use of the land by any person in a residential, industrial, educational, institutional, or commercial development, highway and road construction, and maintenance that results in a change In the natural cover or topography.

Lot (for the purposes of this section) shall mean a parcel of land occupied or intended for occupancy by one or more uses permitted in the Town of Woodfin Zoning Ordinance, including one principal building and its accessory building(s), and having its principal frontage upon a dedicated street.

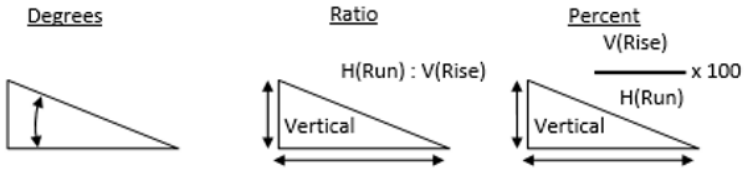
Planar surface is defined as the combined exterior surface area of all vertical surfaces within a single face of the structure.

Regulated tree shall mean all native trees of with a caliper of three or more inches when measured six inches above the root ball and any mature grouping of rhododendron or mountain laurel of 250 square feet or more in area. Invasive non-native species shall not be included in this definition.

Revegetation shall mean reintroducing native plant species, as defined by the Natural Resource Conservation Service of the United States Department of Agriculture, into a disturbed area to restore native plant communities, mitigate erosion and landslides, and minimize the expansion of non-native invasive plants.

Snags shall mean any dead or dying standing tree. For wildlife purposes, snags should be at least three inches in diameter at breast height (dbh) and at least six feet tall. Snags may develop cavities which either occur naturally or are excavated by birds and mammals. The removal of snags can negatively impact wildlife populations that are dependent on them as essential habitat components. Generally, the value of a snag tree increases as its size increases. To assure that the minimum requirements of most wildlife species are being met, three snags of 12 inches dbh or greater should be available per acre. A minimum of one 15-inch dbh or greater diameter den tree should also remain per acre.

Slope shall mean the extent to which a landform deviates from the perfectly horizontal as expressed in percent, degree or ratio. To ensure consistent conversion between these separate methods of expressing the extent of slope, the following explanatory table is provided as part of this definition.



Degrees Horizontal		Horizontal
45°	1H:1V	100%
39°	1.25H:1V	80%
34°	1.5H:1V	67%
30°	1.75H:1V	57%
27°	2H:1V	50%
22°	2.5H:1V	40%
18°	3H:1V	33%
14°	4H:1V	25%
8.5°	6.7H:1V	15%

(e) *Steep slope development standards.* In addition to development standards identified elsewhere in this code, development in designated steep slope areas must also comply with the following:

(1) *Lot size.* Any new lot created with greater than ten percent of the area considered steep slope as defined in section 54-214(b), and which is created after February 15, 2022, shall be a minimum of 1.5 acres.

This subsection shall not prohibit the development on any lot which was a lot of record on or before February 15, 2022, and which does not meet the lot size requirements of this section, provided that all other ordinance requirements are satisfied.

(2) *Density.* No single lot may contain more than two dwelling units.

(3) *Number and height of buildings and structures.*

a. Buildings. No single lot may contain more than two detached buildings, with principal buildings not exceeding a height of 35 feet and accessory buildings not exceeding a height of 20 feet.

b. Accessory structures. The number of accessory structures, not including buildings, are not limited in number however, height shall be limited to no more than 20 feet, except as noted below:

i. All retaining walls are limited to a maximum height of 12 feet. Separate walls that are stacked or tiered shall be combined for the purposes of this section.

ii. Fences and free-standing walls shall meet the standards found in section 54-317.

c. Measuring height. Height shall be limited as described elsewhere in this code.

d. Setbacks. The planning director may approve reductions of front setbacks from 30 feet to 20 feet in R-43 and R-21 district, when said setback reduction results in reducing site grading by 10 percent or more in previously undisturbed areas based on the allowance provided in subsection (4) below.

(4) *Land disturbance and impervious surface standards.* Land disturbance and impervious surface limits shall apply to all steep slope areas as follows:

	Land Disturbance	Impervious Surface
Lots less than 2 acres	0.3 acres	0.16 acres
Lots 2 acres or larger	15% of the total lot area	8% of the total lot area
Major Subdivisions	15% of the total lot area	10% of the total lot area

(5) *Geotechnical assessment.* A geotechnical assessment prepared by a NC registered professional engineer shall be required for lots with existing grade 35 percent or greater to determine the stability of the underlying geology and soils to support the proposed development. The geotechnical analysis report shall be required prior to the issuance of a zoning permit.

(6) *Screening of buildings and structures.*

a. *Applicability.* Screening and revegetation standards apply within steep slope areas for all new construction including new buildings and structures and additions to buildings and structures, and any modification to an existing building exceeding 50 percent of the appraised or tax assessed value.

b. *Planting standards.*

i. Calculating the requirement. The surfaces of the structure which are oriented to the downhill sections of the lot must be screened at a ratio of one tree for every 200 square feet of planar surface. Retaining walls visible from public property or public right-of-way shall be screened at a ratio of one large maturing tree, one small maturing tree and five shrubs for every 50 linear feet.

ii. Minimum tree size. Trees planted must be a minimum of 1.5 inches in diameter measured six inches above the root ball and 75 percent of all new trees must be a large maturing species.

iii. Tree spacing. Trees must be located no greater than 50 feet from the furthest extending portion of the structure (measured perpendicularly) and shall be spaced a minimum often feet, but no greater than 30 feet, apart.

iv. Tree composition. Trees must be of varying, native species, as defined by the Natural Resources Conservation Service of the United States Department of Agriculture, and no single species shall comprise more than 50 percent of the trees planted, unless applying existing tree credits. Existing trees which are left intact and that appear in good health can be credited toward the required plantings. The following credit system will be observed, provided tree protection standards outlined in Sec. 54-216(5) are met:

Existing Tree DBH ~~Dimensions~~	Number of Tree Credits
2" – 6" ~~2.5" to 4" DBH (minimum 8' tall)~~	~~1 tree~~ 1
7" – 12" ~~4" to 6" DBH (minimum 15' tall)~~	~~1.5 trees~~ 2
13" – 18" ~~6" to 10" DBH (minimum 20' tall)~~	~~2 trees~~ 3
19" – 24" ~~10" to 16" DBH (minimum 25' tall)~~	~~2.5 trees~~ 4
~~16~~ 25" or greater ~~(minimum 30' tall)~~	~~3 trees~~ 5

Trees to be credited shall be marked using flagging tape and cordoned off with tree protection fencing spaced one foot for every one inch of tree diameter measured from the edge of tree prior to site disturbance to ensure their health throughout site development.

(7) *Artificial slopes.*

a. Maximum slope standards. Artificial slopes shall not exceed a 1.5:1 cut and 2:1 fill. Artificial slopes may increase to 1:1 cut and 1,5:1 fill with submittal of a geotechnical certification from a North Carolina registered professional engineer. However, if stable exposed rock is the intended result, the cut and/or fill slope(s) may be increased upon certification from a North Carolina registered professional engineer.

b. Revegetating artificial slopes. Artificial slopes shall be remediated through reforestation or revegetation to visually integrate disturbed areas into surrounding terrain with the purpose of maintaining a natural appearance. Revegetation shall consist of a combination of trees, shrubs, and groundcover plants native to the area.

(8) *Maintenance plan.* A maintenance plan shall be required for revegetated areas and such plan shall include provisions for replacement of dead vegetation when greater than 50 percent mortality rate occurs.

(9) *Preservation of vegetation.* The removal of trees, vegetation, and snags from lots within steep slope zones is prohibited unless such trees, vegetation, and snags are located within a permitted land disturbance area or within 30 feet of any dwelling unit and 20 feet of a combustible accessory structure. Non-native invasive species may be removed. For all new development, these preservation areas shall be designated on plans submitted for approval. Preservation areas shall be clearly designated during all land disturbing activities using protective fencing and shall be inspected prior to the zoning permit being issued.

(f) *Zoning permit required.* Compliance with the requirements of this chapter shall be included in the zoning permit review. Site and building plan information necessary to demonstrate compliance with the steep slope development standards, along with all other applicable development requirements will be required at time of zoning permit application.

(1) *Site plan requirements.* Site plans shall be prepared by a licensed design professional and shall include the following:

a. A boundary line survey of the property.

b. The size, location, and species of *regulated trees.*

c. Limits of disturbance identifying where trees, vegetation, and soils are to be protected and preserved and areas where trees, vegetation, and soils are to be removed or modified. This includes proposed grading, utilities, and improvements as well as access, staging, and storage areas.

d. The *critical root zones* of all existing trees within or overlapping the disturbed area including those trees on adjacent properties with root areas that would be impacted by construction, and the placement of tree, vegetation, and soil protection measures that will be used before, during, and after all construction activities to promote the survival and/or retention of such elements.

e. The location of all proposed underground utilities, construction material storage, debris dumpster locations, and the location of proposed sanitary facilities.

f. The location of tree protection fencing required with detail of the fencing construction and a note indicating that a pre-construction meeting with Town of Woodfin staff will be scheduled prior to commencing any work on the site.

Explanatory note: In addition to recognizing the importance of retaining and using native trees and shrubs, dead and deteriorating trees often provide valuable wildlife habitat. Property owners and managers are encouraged to retain significant portions of dead trees as wildlife snags. A tree care or forestry management professional should be consulted to consider ways to reduce the threats to human life and property. Hazardous snags should be cut to a height as close to ten feet as is deemed safe to remove the falling hazard.

(2) *Implementation of tree protection.*

a. *Pre-construction conference.* Prior to commencing any activity requiring a development approval, a pre-construction conference with Town of Woodfin staff shall take place to review procedures for protection and management of all protected elements identified on the tree protection plan.

b. *Tree protection procedures.* Tree protection procedures must follow the specifications written in accordance with standards in the current ANSI A300 Standards for Tree Care Operations, ANSI Z133 Safety Standards, industry best management practices and administrative standards.

c. *Protective barriers.* Fences or other equally protective barriers as determined by the Town of Woodfin shall be used to protect areas identified on an approved tree protection plan as to limit access to the protected area, prevent the compaction of soil and the destruction or damage of the trees. Prior to any development activity, the installation of the protective barrier shall be approved by the Town of Woodfin. The protective barriers shall not be relocated or moved temporarily without the written approval of the Town of Woodfin and shall remain in place until all development activity is completed and approved.

d. *Restrictions within the protected areas.* The following activities are prohibited within the protected area inside of fences: parking of vehicles or equipment; storage of building materials, refuse, or excavated soil; use of tree trunks as a backstop, winch support, anchorage, power pole, signpost, or other similar function.

(g) *Enforcement and penalties.* The Town of Woodfin shall perform inspections to assure that the work conforms to the approved plan and the provisions of this section. Violations of this chapter shall be enforced with the standards found in section 54-41.

Sec. 54-215. - Grading restrictions.

(a) *Grading without an approved development plan. Grading without an approved development plan.* Any land-disturbing activity without an approved development plan shall not be permitted, except as otherwise exempted by N.C.G.S. 160D-903.

Sec. 54-216. - Landscape and open space.

(1) *Purpose*. The purpose of the landscape and open space standards is to preserve or provide quality outdoor spaces that improve the natural scenic beauty, provide areas of respite or recreation, encourage preservation of existing trees and other vegetation, replenish trees and vegetation removed due to development, reduce stormwater runoff, decrease erosion, improve water quality, and protect wildlife habitat.

(2) *Applicability*. Landscape and open space standards shall be required for the following new construction developments within the Town of Woodfin:
   a. Multi-family or single-family residential projects with 5 or more units or lots.
   b. Non-residential development with one or more buildings and/or business areas, as defined in Sec. 54-10, totaling 5000 square feet or more.
   c. Expansions of pre-existing buildings and/or business areas that are:
      - 50 percent or more of the existing building and/or business area, or
      - Greater than 20,000 square feet, regardless of existing square footage.

(3) *Standards*.
   a. General.
      i. *Minimum tree size at planting*. All large maturing trees shall be a minimum of 2-inch caliper or 8-10' tall, while all small-maturing trees shall be a minimum of 1 ½ -inch caliper or 6-8' tall.
      ii. *Minimum planting area*. All trees shall have a minimum planting area of 300 square feet with tree wells dug a minimum of 3-feet deep.

iii. *Maintenance requirements*. The owner or lessee of the property where landscaping is required shall be responsible for the maintenance and protection of all required trees. Landscaped areas shall be maintained in good condition and kept free of debris. Required material may not be replaced without approval from the zoning administrator. Failure to maintain may result in enforcement action per Sec. 54-41

iv. *Pruning of required trees.* Pruning of required trees shall be in accordance with the American National Standards Institute (ANSI) standards A300 or its successor. No topping of trees shall be permitted.

v. *Selection & suitability*. All plant materials shall be in good health and free of disease. All required plant material shall be selected from the Town of Woodfin's Recommended Plant List – Appendix A. Plant material native to Western North Carolina shall be required in environmentally sensitive areas including steep slopes and regulated flood areas and shall be selected based on a species suitability to those areas. In all other areas, native plant material is encouraged, as is the use of pollinator species.

b. Street trees.

i. *Minimum requirement.* One large maturing tree meeting for every 50 linear feet of street frontage shall be required. Where overhead utility lines are present, one small maturing tree for every 40 linear feet shall be required.

ii. *Placement.* Street trees shall be placed parallel to the street, within 20 feet of the edge of pavement. Trees may be located within the town right-of-way or on private property. Trees proposed to be located within state-controlled rights-of-way must obtain approval from the North Carolina Department of Transportation prior to zoning approval.

iii. *Spacing.* Street trees shall be spaced not closer than 15-feet and no further than 60-feet apart.

c. Landscape bufferyards.

i. *Minimum requirement*. A 20-foot-wide vegetated buffer shall be required along the property boundary between non-residential and residential zoning.

ii. *Planting rate*. A minimum of eight trees and 14 shrubs shall be planted for every 100 linear feet of property line buffer.

iii. *Planting composition*. A minimum of 50 percent of all material must be evergreen.

iv. *Plant spacing*. Plant material shall be arranged in a naturalistic manner. Trees shall be spaced no closer than 15-feet from other trees.

v. *Bufferyard reduction*. A bufferyard width and planting rate may be reduced by 50-percent with the installation of a minimum 8-foot tall, opaque fence or wall.

vi. *Stream buffers*. All built upon areas shall provide a minimum setback from all regulated streams as described in Sec. 41-12 and may be used to meet the requirements of this sub-section.

d. Vehicular use area landscaping.

i. *Minimum requirement*. A minimum of one tree shall be required for every 1500 square feet of vehicular use areas with more than 10 parking spaces, or greater than 5000 square feet. A maximum of 25 percent of all required vehicular use area trees may be small maturing.

ii. *Placement*. Trees shall be planted within 20-feet of the edge of the vehicular use area.

iii. *Interior islands*. For vehicular use areas with interior rows of parking, interior planting islands shall be included and spaced to ensure that no parking space is more than 50-feet from a tree. No utilities, light poles, or other structures are permitted in tree islands and islands must be a minimum of 300 square feet per tree.

e. *Screening*. Screening of dumpsters, loading docks, outdoor storage, shall be required with one of the following methods:

i. A continuous hedge of evergreen trees spaced no less than eight feet apart planted in a minimum seven-foot wide planning strip, or

ii. An opaque fence or wall with a minimum height of six feet with the finished side of the fence facing out.

f. *Open space.* Required open space may include undisturbed natural areas or areas developed for passive or active recreation purposes.

i. *Minimum requirement.* Open space shall be set aside at the following rates based on the cumulative parcel size:

- Less than 1 acre 5% of total lot area
- 1-3 acres 10% of total lot area
- Over 3 acres 15% of total lot area
- Subdivisions w/ 5 or more lots 15% of total lot area

ii. Minimum size. Non-contiguous open space areas must be a minimum of 1000 square feet in size.

iii. *Prohibited structures and features*. Required open space may not include above ground stormwater facilities, vehicular use areas, utility substations, retaining walls, community identification signage, retaining walls over four-feet in height, cluster mailboxes, and slopes with a grade greater than 3:1.

iv. *Structures or features allowed at a reduced rate*. Fifty percent (50%) of all areas dedicated to innovative stormwater management that are publicly accessible and do not require fencing, and hardscaped passive or active recreation areas may count towards required open space.

v. *Canopy coverage.* Open space shall be required to include tree plantings at a minimum rate of 1 tree per 1000 square feet. 75% of all required trees shall be large maturing species. Planting spacing must maintain a minimum of 20 feet from any existing tree, and 15 feet from any proposed tree.

(4) *Tree credits*. Credits for existing trees may be applied to any landscape requirement provided other requirements can be met. Credits shall be applied at the following rates:

Existing Tree DBH	**Number of Tree Credits**
2" – 6"	1
7" – 12"	2
13" – 18"	3
19" – 24"	4
25" or greater	5

(5) *Tree protection*. No grading or other land-disturbing activity may occur on a site with existing trees which are designated to be preserved to meet the landscaping requirements until protective barriers are installed by the developer and inspected by the zoning administrator. The diameter at breast height (DBH) of the preserved trees, the species, and the location of protective barriers must be shown on the landscape and grading plans with the dimension between the tree trunk and barrier indicated.

i. *Placement of protective barriers.* Barricades shall be placed around the critical root zone of preserved trees that are within 50 feet of any grading or construction activity. All protective barriers must include clear and visible signage that describes the delineated area as a "Tree Protection Area". All protective barriers and signs must be maintained throughout the building construction process.

ii. *Protective barriers.* A fence or other barrier which is at least three feet high and constructed with durable, weather-proof, and high-visibility materials must be used to identify the tree protection area.

iii. *Prohibited activities.* Land disturbance and other activities may not occur within the tree protection area including:

- Grading
- Filling
- Parking or staging of vehicles, equipment, dumpsters or trailers
- Storage of debris, topsoil, mulch, sand or any other construction material
- Installation of sedimentation and erosion control measures except that erosion control fencing which may run parallel to the tree protection barrier
- Disposal of hazardous or other wastes including concrete washout
- Attaching of nails, ropes, cables, signs, or fencing to any preserved tree.

(6) *Enforcement and penalties*. The Town of Woodfin shall perform inspections to ensure that work conforms to the approved plan and the provisions of this section. Violations of this section shall be enforced per Sec. 54-41 of this chapter.