



AGENDA
BREVARD PLANNING BOARD - REGULAR MEETING
Tuesday, March 28, 2023 - 5:30 PM
City Council Chambers

I. Welcome

II. Introduction of Board Members

III. Certification of Quorum

IV. Approval of Agenda

V. Approval of Minutes

- a. February 28, 2023

VI. New Business

- Consideration of Request for Contiguous Annexation ANN-23-001 by David and
- a. Catherine Nielsen for property located at 31 York Circle and further identified by PIN# 8596-26-2338-000.
- b. Consideration of TXT-23-002 Land Use Matrix Revisions
- c. Continuation of TXT-22-006 Steep Slopes

VII. Public Comments

VIII. Remarks

IX. Adjourn

Agenda Posted, Website March 21, 2023

J. Pinson, Clerk to the Board

To review Agenda materials, go to the City's website www.cityofbrevard.com. Select "Your Government" tab followed by "Agenda Packet" tab. Agenda packet materials are posted on Friday afternoon prior to the meeting.

**MINUTES
BREVARD PLANNING BOARD REGULAR MEETING
FEBRUARY 28, 2023
CITY COUNCIL CHAMBERS**

Brevard Planning Board met for a regular meeting, Tuesday, February 28, 2023, at 5:30 PM, in Council Chambers at City Hall.

Members Present: Greg Hunter, Chair
Reid Wood, Vice Chair
Peter Chaveas
John Schommer
James Carli

Staff Present: Paul Ray, Planning Director
Aaron Bland, Assistant Planning Director
Emily Brewer, Senior Planner
Janice H. Pinson, Board Clerk

I. Welcome

At 5:30 PM, Greg Hunter, Chair called the meeting to order.

II. Introduction of Planning Board Members

The Board introduced themselves.

III. Certification of Quorum

Chair Greg Hunter confirmed with the Board Clerk that a quorum of the Board was present.

IV. Approval of Agenda

Motion to approve agenda R. Wood, second P. Chaveas, unanimously carried.

V. Approval of Minutes

Motion to approve January 24, 2023, minutes as presented by J. Schommer, second R. Wood, unanimously carried.

VI. New Business

a. Consideration of amendment of Planned Development District The Independent Living at Tore's Home Ordinance No. 2020-18- Text Amendment - TXT-22-015 Rooming House

Aaron Bland, Assistant Planning Director, presented his staff report a portion of which follows:

Background The Planning Department has received a request (Attachment 1) for a modification to the Independent Living at Tore's Home Planned Development District. The Planning Director has determined this to be an intermediate modification, as such, the Planning Board is the approving authority for this request. In September of 2020 the Independent Living at Tore's Home Planned Development District and preliminary master plan was approved by City Council via Ordinance No. 2020-18. In March of 2021 the Planning Board granted an intermediate modification to the site plan with a new site plan that more clearly depicted the building envelopes of the lots given the approved setbacks. In June of 2022 the Planning Board granted a second intermediate modification to the table of allowable uses, adding the "Dwelling—Single Family" and "Dwelling – Secondary" land uses.

Discussion The new modification request before the Board at this time is to add the land use "Rooming or Boarding House" to the list of allowable land uses in the PDD's site-specific ordinance (see Attachment 2). The Applicant is requesting this use be added to the table of allowable land uses following a text amendment to the City's Unified Development Ordinance (UDO) that allowed the Rooming or Boarding House use in the General Residential zoning district, which is this site's base district. In essence, the Applicant is asking for their site to also be included in the recent city-wide change. Nothing regarding the density, setbacks, or the site plan is proposed to change.

Tore Borhaug, Applicant stated that he wanted to amend his PDD to follow the current ordinance and to be transparent.

J. Carli made a motion to approve with reference to the consistency statement which is attached hereto and labeled, Exhibit "A", seconded by J. Schommer, unanimously carried.

b. Consideration of Text Amendment - TXT-23-001 Tap Fees

Emily Brewer, Senior Planner, presented her staff report a portion of which follows:

Background & Discussion

North Carolina General Statutes §160D-1316 allows for local governments to expend funds for residential housing construction, new or rehabilitated, for sale or rental to persons and families of low and moderate income.

On May 16, 2022, City Council adopted Ordinance 2022-25 amending Chapters 13 and 19 of the Unified Development Ordinance authorizing the City to issue water and sewer tap fee waivers for eligible affordable rental housing projects. The ordinance states that projects are eligible for the waiver if the developer agrees to provide housing for persons of low-income for a minimum of five years.

Since then, the UNC School of Government has determined that fee waivers for affordable housing projects are not permissible. Under NC law, a municipality may assign different rates for consumers if it is “based upon such factors as the cost of service, the purpose for which the service or the product is received, the quantity or the amount received, the different character of the service furnished, the time of its use or any other matter which presents a substantial difference as a ground of distinction” (*Wall v. City of Durham*, 41 N.C. App. 649, [N.C. Ct. App. 1979]). In other words, there must be a defensible, utility-based reason for assigning different rates or fees.

At the Housing Committee meeting on February 14, 2023, Planning Director Paul Ray and City Manager Wilson Hooper discussed the possibility of changing the existing tap fee waivers to an eligible expense for reimbursement with Housing Trust Fund resources. Over the past year, Staff has been working closely with the Housing Committee (formerly the “Housing Trust Fund Selection Committee”) to revise the Housing Trust Fund bylaws and programs to support privately created affordable housing within the City’s jurisdiction. After having received favorable recommendations by the Housing Committee, these documents will be presented to City Council at the March 20, 2023, meeting. With this new process, developers of eligible affordable housing projects can apply during a regular funding cycle to be reimbursed for the cost of the water and sewer tap fees.

The Housing Committee recommended adoption of the text amendment and folding this initiative into the Housing Trust Fund programs. The Committee also recommends that City Council consider using the General Fund to provide funds to the Housing Trust Fund annually for this purpose, so as not to diminish the limited funds currently available.

J. Schommer recommended that revisions be made to thresholds in the Housing Committee By-Laws definitions to more clearly state income thresholds.

After a brief discussion and questions, P. Chaveas moved to approve with reference to the consistency statement, attached and labeled, Exhibit “B” and with further recommendation that the By-Laws be amended as discussed, second by J. Schommer, unanimously carried.

VI. Old Business

a. Continuation of Text Amendment TXT-22-006 Steep Slopes

Emily Brewer, Senior Planner, presented her staff report which a portion of which follows:

Background

The City of Brevard is endowed with a diverse and dynamic topography that defines its character as a mountain town nestled within the Blue Ridge Mountains. Development

regulations for steep slopes are a critical tool in ensuring this identity is protected for future generations of Brevardians.

The steep slope ordinance has been discussed many times in the past few years, especially as infill residential development becomes more of a priority. Revisions have been presented to Planning Board and City Council most recently in the fall of 2022. Staff shared relatively minor changes that changed the review process, added the stipulation that the measurement be conducted for the area of disturbance, and removed the prescriptive density requirements in Conditional Zoning Districts. The text amendment (included as Attachment 1) was intended to clarify language around steep slopes in advance of broader changes in the coming months. Planning Board unanimously recommended approval of the text amendment to City Council. During their discussion on October 17th, multiple members of City Council expressed an interest in seeing a fully revised version of Section 6.4 – Steep Slope Area Requirements – instead of small revisions.

Discussion

Staff will facilitate a work session with Planning Board to establish priorities for steep slope development regulations and protections. During this discussion, Staff will share lessons learned from researching other Western North Carolina municipalities, conduct a mapping exercise, discuss various diagrams and illustrations, and evaluate the viability of potential solutions.

Emily Brewer presented a power point for the steep slopes work session which is attached hereto and labeled, Exhibit “C”.

After lengthy discussion and questions, the Board was asked to list what protections they felt were needed and the list follows:

1. Elevation triggers
2. Whole parcel vs. site
3. Tiered massing vs. cut field
4. Regulations begin at 25%; more regulated 25-35% and even more at 35% and above; Geotechnical engineering required at 35% or greater
5. Bulk limits – possibly more bulk if follow contour
6. Incentives/bonuses for higher standards ex: colors that blend with natural surroundings, building heights, lighting to blend with natural surroundings
7. Limit heights of retaining walls, boulder walls, deck columns, etc.
8. Average grade line measure the building height from the mean or average based on elevation
9. Plans to be approved when building on steep slopes, building elevation, building sections
10. Ridgeline protection – separately in ordinance but addressed, consideration of architectural standards.
11. Jackson County best practices, Emily to email to the Board for review.

Emily Brewer thanked the Board for their input and stated she will be prepared to present further at the next meeting.

VII. Public Comment – None.

VIII. Remarks – None.

X. Adjournment

There being no further business, R. Wood moved to adjourn, seconded by J. Carli, carried unanimously, and the meeting adjourned 7:15 PM.

Greg Hunter, Chair

Janice H. Pinson, Board Clerk

STAFF REPORT

Planning Board, Tuesday, March 28, 2023

Title: Consideration of Request for Contiguous Annexation ANN-23-001 by David and Catherine Nielsen for property located at 31 York Circle and further identified by PIN# 8596-26-2338-000.

Speaker: Aaron Bland

Prepared by: Aaron Bland, Asst Planning Director

Approved by: Paul Ray, Planning Director

Background

On January 24, 2023, David and Catherine Nielsen (“Applicant”) submitted a request for voluntary continuous annexation for their property at 31 York Circle. The subject property is located off of Osborne Road and is identified by PIN 8596-26-2338-000. See Attachment 1 for the petition materials, Attachment 2 for the preliminary annexation plat submitted, and Attachment 3 for a site map.

Discussion

The subject property is located within the City’s Extra-Territorial Jurisdiction (ETJ) adjacent to the corporate limits and is zoned General Residential – 8 (GR8). The Applicant wishes to annex the entirety of the property. The financial and service delivery impacts are estimated to be minimal; see Attachment 4 for full financial impact details.

There are currently two structures on the property, one historic cabin built in 1905, approximately 600 square feet in size, and a larger barn/woodworking shop space. The Applicant has indicated their intention to build a new primary single-family house and convert the cabin to an accessory dwelling unit (ADU). Per Brevard’s Unified Development Ordinance, properties in General Residential are limited to one principal structure (i.e., the single-family home) and up to two accessory structures, one of which may be an accessory dwelling unit, thus the Applicant’s stated plans for the property are allowed by the UDO.

The existing cabin structure is already connected to City water, upon annexation it is assumed it will also be connected to City sewer. Additionally, the new principal house will require new connections as well. The cost of determining the appropriate connection method and physical connections will be borne by the property owner.

Policy Analysis

Voluntary, contiguous annexations are governed by North Carolina General Statute §160A-31 which authorizes cities to annex any area contiguous to its borders on receipt of a petition signed by all the owners of real property within the area proposed for annexation. The subject property qualifies for annexation under this statute.

Recommendation

Staff recommends approval of the proposed annexation. The Planning Board’s

responsibility is to formulate a recommendation to Brevard City Council. The Board's options are to recommend approval or denial of the annexation as presented.

Fiscal Impact

See Attachment 4.

Attachments:

1. Petition Materials
2. Plat
3. Site Map
4. Financial Impact Summary



STATE OF NORTH CAROLINA
COUNTY OF TRANSYLVANIA
CITY OF BREVARD



PETITION REQUESTING A CONTIGUOUS
ANNEXATION
(G.S. 160A-31)

Date: 1-24-2023

To the City Council of the City of Brevard:

1. We the undersigned owners of real property respectfully request that the area described in paragraph 2 below be annexed to the City of Brevard.
2. The area to be annexed is contiguous to the City of Brevard and the boundaries of such territory are as follows:

Transylvania County Property Identification Number(s): 8596-26-2338-000

Street Address: 31 York Circle Brevard, NC 28712

**(ATTACH A METES AND BOUNDS PROPERTY
DESCRIPTION AS "ATTACHMENT A")**

3. A map is attached showing the area proposed for annexation in relation to the primary corporate limits of the City of Brevard. (ATTACH MAP AS "ATTACHMENT B", including the Tax Map PIN)
4. We acknowledge that any zoning vested rights acquired pursuant to G.S. 160A-385.1 or G.S. 153A-344.1 must be declared and identified on this petition. We further acknowledge that failure to declare such rights on this petition shall result in a termination of vested rights previously acquired for the property. (If zoning vested rights are claimed, indicate below and attach proof.)

Property Owner(s): Do you declare vested rights? Yes ☐ No ☒
(Vested rights are rights belonging completely and unconditionally to a person which cannot be impaired or taken away by another party.)

Property Owners Contact Information (If there are more than three property owners, provide their names, contact information and signatures upon a separate and attached sheet.)

a. Name Catherine Nielsen
 Address 31 York Circle Brevard, NC 28712
 Telephone 828 289 6831 Email catalexandernielsen@gmail.com
 Signature Catherine Nielsen

b. Name David Nielsen
 Address 31 York Circle Brevard, NC 28712
 Telephone 828 755 5701 Email nielsen/c223@gmail.com
 Signature David Nielsen

c. Name _____
 Address _____
 Telephone _____ Email _____
 Signature _____

Property Ownership by Corporation or LLC: (If there are more than three principals or managing members then provide their names, contact information and signatures upon a separate and attached sheet.)

a. Name _____
 Address _____
 Telephone _____ Email _____

By: _____
 Type or Print Name and Title (President / Managing Member)

Signature _____

b. Name _____
Address _____

Telephone _____ Email _____

By: _____
Type or Print Name and Title (President / Managing Member)

Signature _____

c. Name _____
Address _____

Telephone _____ Email _____

By: _____
Type or Print Name and Title (President / Managing Member)

Signature _____

AGENT:

Name: _____

Address: _____

Telephone: _____ Email _____

Petition along with a copy of the property Deed, Metes and Bounds description (Attachment A), Map / Survey (Attachment B) and cash/credit or check in the amount of \$500 made payable to the City of Brevard is to be returned to:

Denise Hodsdon, City Clerk
City of Brevard
95 West Main St., Brevard, NC 28712

2021007887TRANSYLVANIA COUNTY NC FEE \$26.00
STATE OF NC REAL ESTATE EXT**\$400.00**

PRESENTED & RECORDED

10/18/2021 02:18:42 PM

CINDY M OWNBEY

REGISTER OF DEEDS

BY: KARIN SMITH

DEPUTY REGISTER OF DEEDS

BK: DOC 1006**PG: 499 - 506****NORTH CAROLINA GENERAL WARRANTY DEED**

Excise Tax: \$400.00

Return after recording to: Edmonds & Matthews, PLLC

Brief description for the Index: Lot 2-A, Osborne Road

This Deed was prepared by: Donald E. Jordan, Attorney at Law

This property does not include the primary residence of Grantor

This DEED is made this 5th day of October, 2021, by and between:

GRANTOR: **JAMES H. WOLFE, individually and as Executor of the Estate of Carolyn Osborne Howie, Transylvania 21-E-16**
joined by his wife, Ellen Wolfe;
ELIZABETH H. ALEXANDER (the same as Barbara H. Alexander),
joined by her husband, Donald Max Alexander;
MARTHA JEANNE HOWIE, unmarried;
REBECCA H. BEARD, unmarried (the same as Rebecca Howie Beard);
PARKS HUNTER HOWIE, JR. (the same as Parks H. Howie, Jr.),
joined by his wife, Robin Howie; and
TRACY FRANCES HOWIE, unmarried (middle name Francis in Will)

Grantor's Address: 17 Tiverton Lane, Asheville, NC 28803

GRANTEE: **CATHERINE ALEXANDER NIELSEN and**
DAVID C. NIELSEN,
Wife and Husband

Grantee's Address: 31 York Circle, Brevard, NC 28712

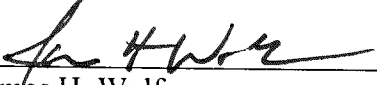
The designation Grantor and Grantee in this Deed shall include the parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

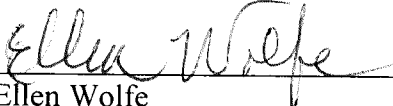
The Grantor, for a valuable consideration paid by the Grantee (the receipt of which is acknowledged) grants, bargains, sells and conveys to the Grantee in fee simple, all of the lot or parcel of land located in Brevard Township, North Carolina, and as is described in the attached Exhibit A. This is a portion of the same property described in the Deed recorded in Document Book 169, Page 531, Transylvania County Registry. This conveyance is made subject to real property taxes for the current year.

THIS CONVEYANCE IS MADE FOR THE GRANTEE TO HAVE AND TO HOLD the Property and all privileges and appurtenances belonging to the Property in fee simple.

The Grantor covenants with the Grantee that Grantor is seized of the Property in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons, subject only to the stated exceptions.

Grantor is signing this Deed as of the date specified above.


James H. Wolfe
Individually and as Executor


Ellen Wolfe

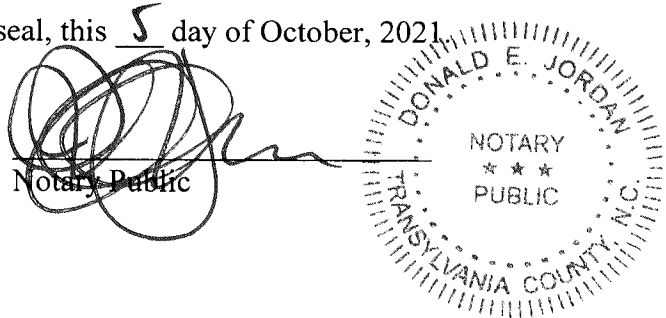
(See attached signature pages for additional Grantors)

STATE OF NORTH CAROLINA
COUNTY OF Transylvania

I, Donald E. Jordan, a Notary Public of the specified County and State, certify that James H. Wolfe personally appeared before me this day and acknowledged the voluntary execution of this Deed.

Witness my signature and official stamp or seal, this 5 day of October, 2021.

My commission expires: Aug 30, 2024

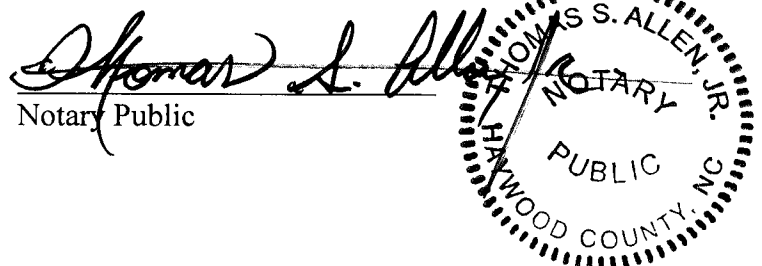


STATE OF NORTH CAROLINA
COUNTY OF Buncombe

I, Thomas S. Allen, Jr., a Notary Public of the specified County and State, certify that Ellen Wolfe personally appeared before me this day and acknowledged the voluntary execution of this Deed.

Witness my signature and official stamp or seal, this 5th day of October, 2021.

My commission expires: 05/21/25



SIGNATURE PAGE TO DEED - HOWIE ESTATE DEVISEES

Signed as of October 5, 2021:

Tracy F Howie
Tracy Frances Howie

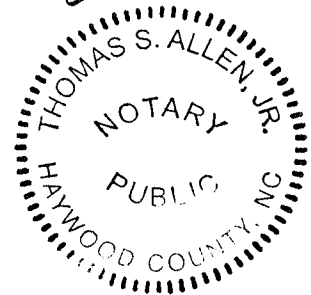
North
STATE OF SOUTH CAROLINA
COUNTY OF Galveston

I, Thomas S. Allen Jr., a Notary Public of the specified County and State, certify that Tracy Frances Howie personally appeared before me this day and acknowledged the voluntary execution of this Deed.

Witness my signature and official stamp or seal, this 6th day of October, 2021.

My commission expires: 05/21/2025

Thomas S. Allen, Jr.
Notary Public



SIGNATURE PAGE TO DEED - HOWIE ESTATE DEVISEES

Signed as of October 5, 2021:

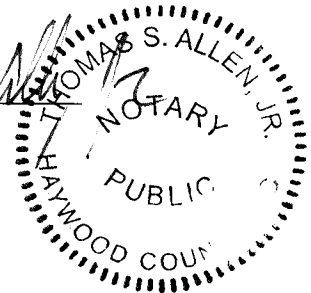
Rebecca H. Beard
Rebecca H. Beard

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg

I, Thomas S. Allen Jr. a Notary Public of the specified County and State, certify that Rebecca H. Beard personally appeared before me this day and acknowledged the voluntary execution of this Deed.

Witness my signature and official stamp or seal, this 6th day of October, 2021.

My commission expires: 05/21/2025 - Thomas S. Allen Jr.
Notary Public



SIGNATURE PAGE TO DEED - HOWIE ESTATE DEVISEES

Signed as of October 5, 2021:

Parks Hunter Howie, Jr.
Parks Hunter Howie, Jr.

Robin Howie
Robin Howie

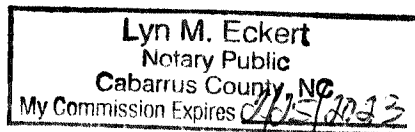
STATE OF NORTH CAROLINA
COUNTY OF Cabarrus

I, Lyn M Eckert, a Notary Public of the specified County and State, certify that Parks Hunter Howie, Jr. and Robin Howie personally appeared before me this day and acknowledged the voluntary execution of this Deed.

Witness my signature and official stamp or seal, this 5th day of October, 2021.

My commission expires: 2/25/2023

Lyn M Eckert
Notary Public



SIGNATURE PAGE TO DEED - HOWIE ESTATE DEVISEES

Signed as of October 5, 2021:

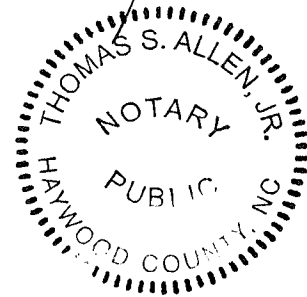
Martha Jeanne Howie
Martha Jeanne Howie

STATE OF NORTH CAROLINA
COUNTY OF Cabarrus

Thomas S. Allen Jr. a Notary Public of the specified County and State, certify that Martha Jeanne Howie personally appeared before me this day and acknowledged the voluntary execution of this Deed.

Witness my signature and official stamp or seal, this 6th day of October, 2021.

My commission expires: 05/21/2025 Thomas S. Allen Jr.
Notary Public



SIGNATURE PAGE TO DEED - HOWIE ESTATE DEVISEES

Signed as of October 5, 2021:

Elizabeth H. Alexander
Elizabeth H. Alexander

Donald Max Alexander
Donald Max Alexander

STATE OF NORTH CAROLINA
COUNTY OF Buncombe

I, Thomas S. Allen, Jr. a Notary Public of the specified County and State, certify that Elizabeth H. Alexander and Donald Max Alexander personally appeared before me this day and acknowledged the voluntary execution of this Deed.

Witness my signature and official stamp or seal, this 6th day of October, 2021.

My commission expires: 05/21/2025 Thomas S. Allen, Jr.
Notary Public

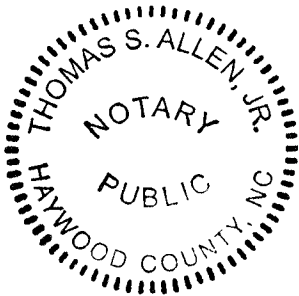
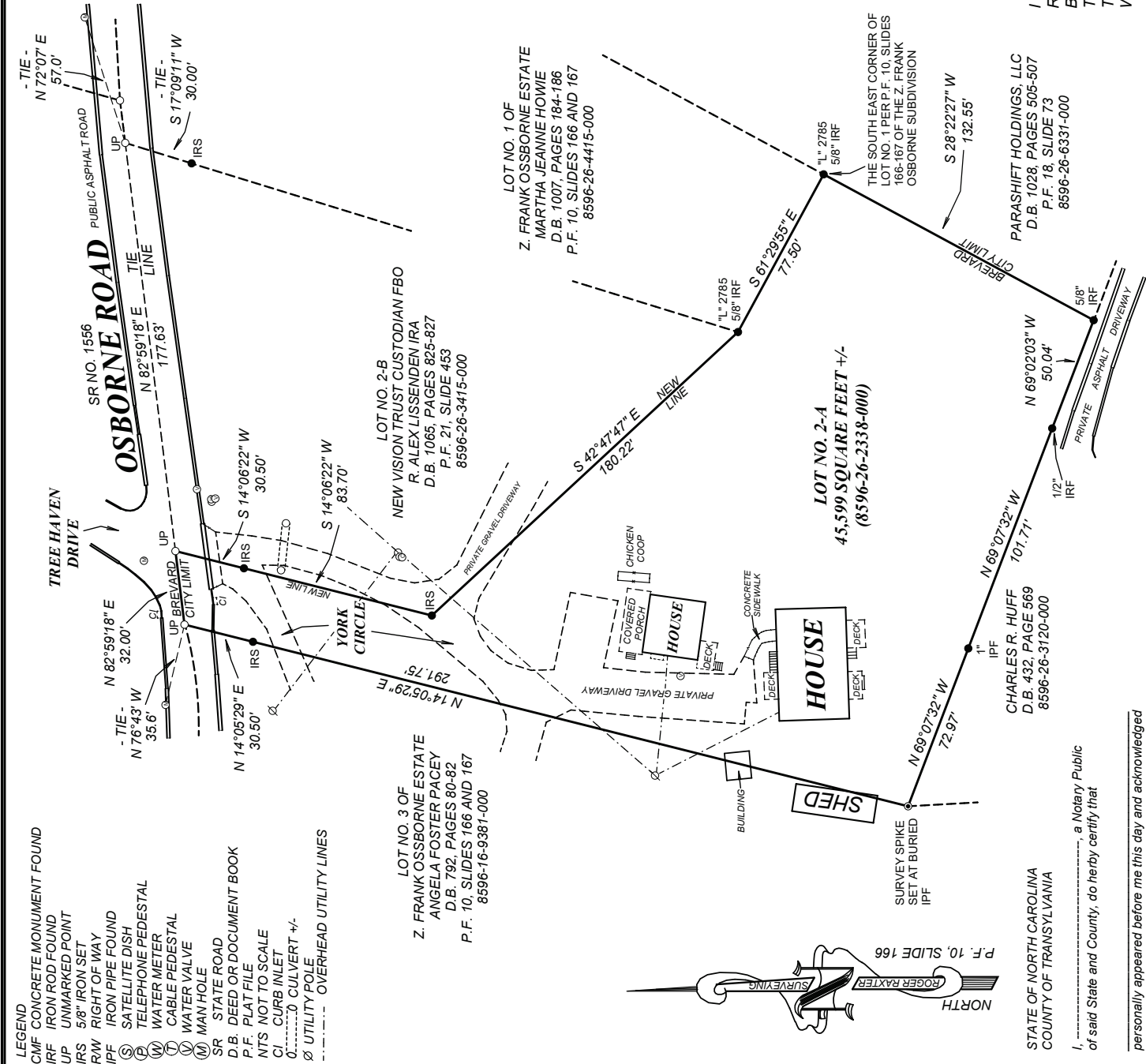


EXHIBIT A - LEGAL DESCRIPTION

All of Lot 2-A, containing 45,599 square feet, as shown on the plat of a survey dated August 18, 2021, prepared by E. Roger Raxter, PLS, for Carolyn Osborne Howie and Parks Hunter Howie, recorded in Plat File 21, Slide 453, Records of Plats for Transylvania County, in the office of the Register of Deeds, Transylvania County, North Carolina.

This conveyance is made together with a right to use the shared driveway shown on the referenced Plat located partially on the adjoining Lot 2-B, and this conveyance is also subject to the rights of owners adjoining on both sides of Lot 2-A for the joint use of the driveways shown on the Plat.



ANNEXATION PLAT-ORDINANCE NO. _____
OF PROPERTY OWNED BY :

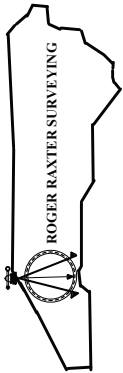
**CATHERINE ALEXANDER NIELSEN
and husband, DAVID C. NIELSEN**

PROPERTY LOCATED IN :
CITY OF BREVARD
BREVARD TOWNSHIP
TRANSYLVANIA COUNTY
NORTH CAROLINA

BEING ALL OF LOT NO. 2-A OF THE HOWIE SURVEY
AS DESCRIBED AND RECORDED IN P.F. 21, SLIDE
453 AND D.B. 1006, PAGES 499-506, OF THE
TRANSYLVANIA COUNTY REGISTRY.

DEED REFERENCE : D.B. 1006, PAGES 499-506.
PLAT REFERENCE : P.F. 21, SLIDE 453.
DATE : JANUARY 13, 2023.

- NOTES
- 1) This property is located in Zone X, areas determined to be outside the 500-year floodplain per F.I.R.M. of this area dated October 02, 2009.
 - 2) This property is subject to matters found by a title examination and also subject to all restrictions, setback lines, roadways, zoning ordinances and right of ways appearing on this property and/or of record.
 - 3) Area computed by coordinate method, including all right of ways.
 - 4) This is of another category, such as the recombination of existing parcels, a court ordered survey or other exception to the definition of subdivision. (GS 47-30)(11) d.
 - 5) This map is not transferable, and may not be used by any person or entity without written authorization from E. Roger Raxter, PLS. This plat is provided for the use of the parties named hereon.
 - 6) The corners found and set are one inch to twelve inches above the ground, unless otherwise noted.
 - 7) This survey does not certify legal title to the land itself or to the boundaries shown. Users of this plat should obtain an accurate legal opinion as to the ownership within the boundaries of this plat.
 - 8) The Tax Pin is : 8596-26-2338-000.
 - 9) York Circle is an existing private gravel roadbed with an existing deeded right of way per D.B. 169, Page 531.
 - 10) This property is zoned GR 8.
 - 11) The owners address is : 31 York Circle, Brevard, NC, 28712.
 - 12) This plat was prepared from the recorded plat referred to above. No actual field survey was done in 2023.



CITY OF BREVARD-ANNEXATION

I HEREBY CERTIFY THAT THIS PLAT FOR ANNEXATION HAS FOLLOWED ALL REQUIREMENTS AND PROCEDURES AND A PUBLIC HEARING WAS HELD BY THE CITY OF BREVARD TO ANNEX THE PROPERTY HEREIN DESCRIBED. THE CITY OF BREVARD ADOPTED ORDINANCE NUMBER _____ TO ANNEX THE PROPERTY DESCRIBED HEREIN ON _____ WITH THE EFFECTIVE DATE OF ANNEXATION ON _____.

Owner Certificate- Annexation : I (we) hereby certify that I am (we are) the owner(s) of the property shown and described hereon and that I (we) hereby adopt this plat of annexation with my (our) free consent.

Date _____ Owner _____
Date _____ Owner _____

PRELIMINARY PLAT ONLY, NOT TO BE USED FOR SALES, CONVEYANCES OR RECORDING.



GRAPHIC SCALE : 1 INCH = 40 FEET

STATE OF NORTH CAROLINA
COUNTY OF TRANSYLVANIA

I, _____, a Notary Public
of said State and County, do hereby certify that

personally appeared before me this day and acknowledged
the due execution of the foregoing instrument.

WITNESS my hand and Notarial Seal, this the _____
day of _____, 2012.

Notary Public

My Commission Expires _____

Review Officer Certification.

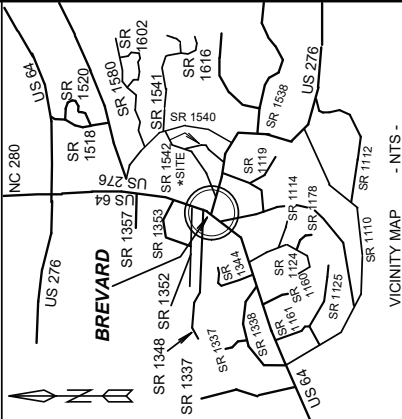
State of North Carolina, County of Transylvania
I, _____, Review Officer of Transylvania County,
certify that the map or plat to which this certification is affixed meets all
the statutory requirements for recording.

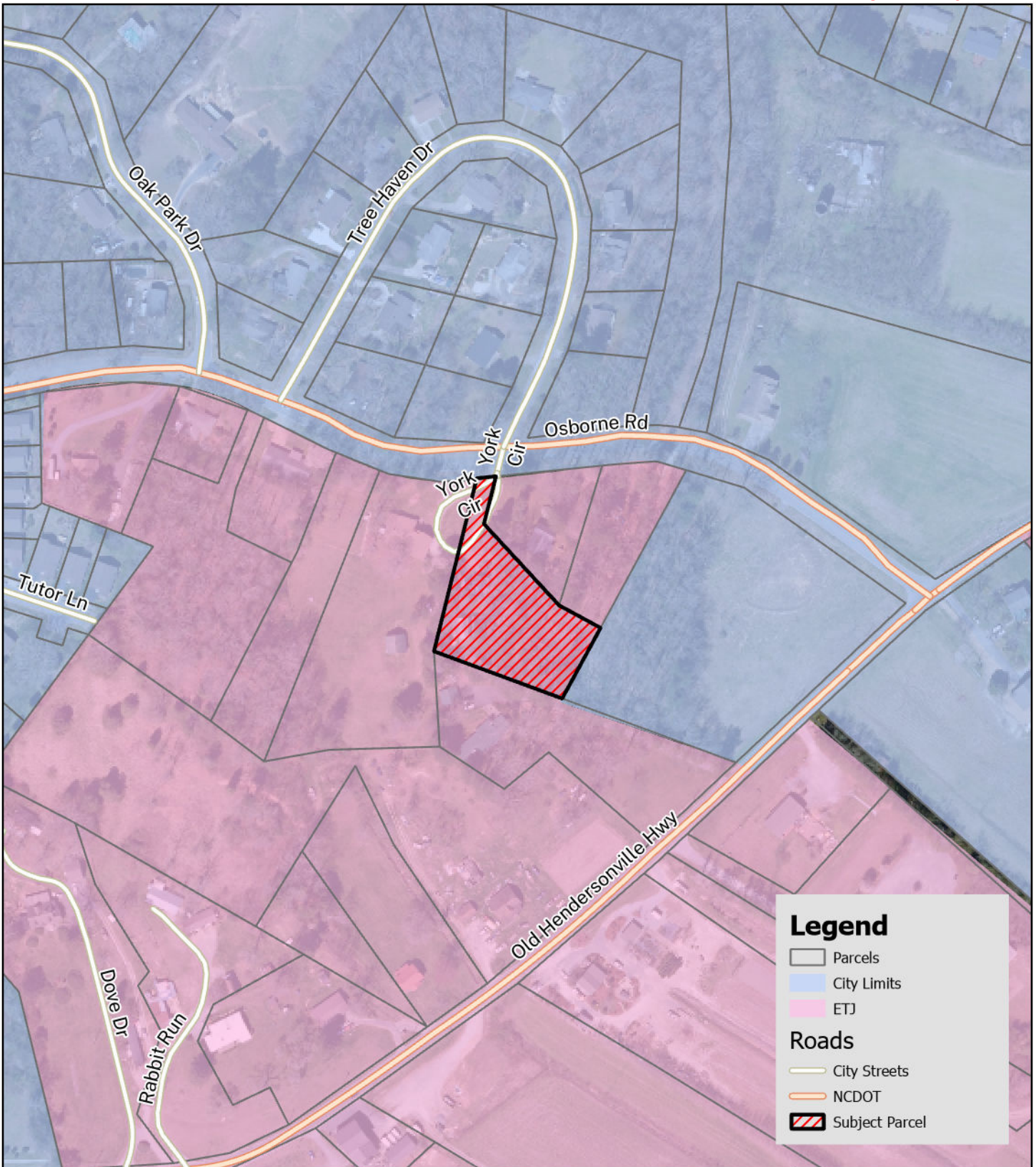
Date _____ Review Officer _____

I, E. ROGER RAXTER, PROFESSIONAL LAND SURVEYOR,
CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPER-
VISION FROM RECORDED DOCUMENTS AND/OR OTHER
INFORMATION AND DOES NOT REPRESENT AN ACTUAL
FIELD SURVEY. THAT THIS PLAT WAS PREPARED
IN ACCORDANCE WITH GS 47-30 AS AMENDED.

E. ROGER RAXTER January 13, 2023
NC PLS L-2938 DATE

Plat Prepared By :
E. ROGER RAXTER, N.C. PLS L-2938
1101 SILVERSTEEN ROAD
LAKE TOXAWAY, N.C. 28747
PHONE : (828) 966-4399 OR
CELL : (828) 226-0251
E-MAIL : erraxter@hotmail.com
DATE JANUARY 13, 2023
DRAWING NUMBER 21064B



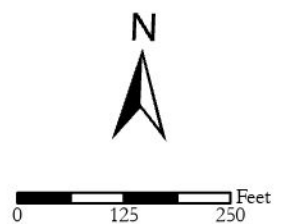


ANN-23-001 Site Map

Esri, NASA, NGA, USGS, NC CGIA, Maxar, Microsoft, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

2023

Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200 Feet



ANNEXATION #ANN-23-001

FINANCIAL SUMMARY

1 SINGLE FAMILY HOME + ADU

REVENUE	GENERAL FUND	WATER AND SEWER FUND	FIRE DEPT SPECIAL REVENUE FUND	TOTAL ALL FUNDS
ESTIMATED PROPERTY TAXES	2,698.55		273.42	2,971.97
TRASH AND RECYCLING FEES	-	480.00	-	480.00
WATER & SEWER UTILITY CHARGES		3,544.80		3,544.80
POWELL BILL	-			-
TOTAL REVENUE	2,698.55	4,024.80	273.42	6,996.77
EXPENDITURES				
ADMINISTRATION/FINANCE/HR	583.20			583.20
POLICE DEPT	1,069.20			1,069.20
FIRE DEPT			273.42	273.42
TRASH AND RECYCLING	-	480.00		480.00
STREET DEPT	529.16			529.16
PARKS & PROPERTY MANAGEMENT	250.00		-	250.00
PLANNING & ZONING	291.60			291.60
WATER DISTRIBUTION		386.38		386.38
WATER TREATMENT PLANT		549.44		549.44
SEWER COLLECTIONS		531.72		531.72
WASTERWATER TREATMENT PLANT		978.36		978.36
WATER & SEWER FUND DEBT		1,098.89		1,098.89
TOTAL EXPENDITURES	2,723.16	4,024.80	273.42	7,021.38
NET GAIN OR (LOSS)	(24.61)	-	-	(24.61)

ASSUMPTIONS: BUILDING OF ADDITIONAL SINGLE FAMILY HOME AND CONVERSION OF EXISTING HOUSE TO ADU; 5,000 GALLONS/MONTH/HOME; PER CAPITA CHARGE FOR PUBLIC SERVICES

TAX VALUE OF EXISTING HOME	\$182,740
TOTAL TAX VALUE ADDED WITH NEW HOME	\$582,740

STAFF REPORT

Planning Board, Tuesday, March 28, 2023

Title: Consideration of TXT-23-002 Land Use Matrix Revisions

Speaker: Emily Brewer, AICP, Senior Planner

Prepared by: Emily Brewer, Senior Planner

Approved by: Aaron Bland, Asst Planning Director, Paul Ray, Planning Director

Background

On December 5, 2022, City Council adopted Ordinance 2022-76 amending the land use matrix, standards and definitions. This amendment clarified, consolidated, and added new use definitions and standards in logical groupings to improve the usability and efficiency of the UDO. Since then, Staff has been using the ordinance and found some items that can be refined. City ordinances are not meant to be static, but living documents that change as the City does. These revisions, included in Attachment A, will continue clarifying the land uses and regulations.

Discussion

The proposed text amendments along with Staff's reasoning for the changes is as follows:

- Shelters: Despite being considered a residential use in our ordinance, shelters are not permitted in residential districts. However, there are existing shelters that are in residential settings, such as the Haven located in the Residential Mixed-Use (RMX) zoning district, that are compatible with the surrounding areas. This amendment makes shelters allowed with a Special Use Permit in General Residential (GR) and permitted with standards in RMX.
- Live-Work Units and Mixed-Use Residential Unit: The definition of live-work units was refined in last year's text amendment to say: "*a residential building type that consists of both a residential use and a non-residential use...*" Since then, Staff has determined that another land use is required to account for non-residential building types (e.g., mixed-use buildings). Staff has added a definition and standards for "Mixed-Use Residential Unit" that mirrors that of the live-work unit. The permissions for this new household living type align with the zoning districts where "Mixed-Use Buildings" are allowed under Section 5.6 of the UDO.
- Mobile Food Vendor Site: Mobile food vendors (or food trucks) are currently in our UDO as a temporary use that would only be permitted for 90 days at a time, after which they would be required to vacate and not be established for a period of 45

days. However, the City does not regulate food trucks (they have to secure permits from the Transylvania County Health Department), but it does regulate the food truck *site*. The site has requirements for setbacks and separation distances. The site is permanently established, but according to our use standards the vendor would need to vacate. The solution proposed by Staff is to remove “Mobile Food Vendors” from the temporary uses section and incorporate the standards as a new non-residential accessory use: *Mobile Food Vendor Site*.

Policy Analysis

Effective land use is an essential function of city planning and zoning. The proposed text amendment is consistent with the following elements of *Building Brevard 2030 Comprehensive Land Use Plan*:

Goals

GOAL 1: *Expand housing opportunities for all residents while preserving the character of Brevard and its neighborhoods.*

GOAL 2: *Encourage a development pattern that respects Brevard’s sense of place and prioritizes livable communities.*

GOAL 7: *Support economic vitality and grow the tax base, cultivate local businesses, and attract sustainable industry.*

Recommendations

LUH-4: *Identify areas across the City that are best positioned to accommodate future growth.*

LUH-9: *Evaluate and amend development ordinances to facilitate infill development on vacant and underdeveloped parcels, as well as revitalization of developed parcels.*

EDIR-3: *Encourage building and site upgrades Downtown and in other key commercial areas.*

Recommendation

The Board’s role is to make a recommendation to City Council. The Board has the following options in this role:

1. Recommend adoption of the amendment as written;
2. Recommend adoption of the amendment as revised by the Board; or
3. Recommend rejection of the amendment.
4. Table the amendment for further consideration.

In accordance with North Carolina General Statutes, the Planning Board must also submit a statement analyzing the consistency and reasonableness of this proposal with regards to existing policies or plans of the City of Brevard. A Statement of Consistency and Reasonableness is included for the Board’s review (Attachment 2).

Attachments:

1. Proposed Text Amendment
2. Consistency Statement

2.2. Use categories and tables of permitted uses.

- A. All uses permitted in this Code have been divided into 10 general categories as detailed below and are generally defined as follows:
1. *Residential*: Premises available for long-term human habitation by means of ownership and rental, but excluding short-term leasing or rental of less than a month's duration.
 2. *Lodging*: Premises available for short-term human habitation for a fee, including daily and weekly rental.
 3. *Commercial*: Premises available for the transaction of general business, the provision of services, the commercial sale of merchandise, and/or food and drink consumption, but excluding manufacturing.
 4. *Civic/institutional*: Premises available for organizations dedicated to religion, education, government, social service, health care, and other similar functions.
 5. *Entertainment/recreation*: Premises for the gathering of people for purposes such as arts and culture, amusement, and recreation.
 6. *Agriculture*: Premises primarily used to grow crops, produce, flowers, etc., raise animals, harvest timber, or other similar functions.
 7. *Manufacturing/wholesale/storage*: Premises available for the creation, assemblage, storage, and repair of items including their wholesale or retail sale.
 8. *Infrastructure*: Uses and structures dedicated to transportation, communication, information, and utilities.
 9. *Accessory*: Uses of land or of a building or structure or portion thereof, which is incidental and subordinate to a principal use on the same lot.
 10. *Temporary*: Uses of land which, having met certain requirements and conditions, that may be permitted for a period of limited duration, and which may utilize "temporary structures" for the duration of the event.
- B. *Interpretation of use matrices.*
1. The use matrix is not intended to be a comprehensive list of all possible uses, but rather a list of more common uses likely to be proposed within the city.
 2. In the event that a particular use is not listed in the use matrix, and such use is not listed as a prohibited use and is not otherwise prohibited by law, the administrator shall determine whether a materially similar use exists in this chapter.
 - (a) Should the administrator determine that a materially similar use does exist, the regulations governing that use shall apply to the particular use not listed and the administrator's decision shall be recorded in writing pursuant to G.S. 160D-403.
 - (b) Should the administrator determine that a materially similar use does not exist, this chapter may be amended to establish a specific listing for the use in question in accordance with the provisions set forth for text amendments in Chapter 16.
 3. When determining whether a proposed use is materially similar to a listed use, the administrator may consider the following criteria:
 - (a) The actual or projected characteristics of the proposed use;
 - (b) The relative amount of site area or floor area and equipment devoted to the proposed use;
 - (c) Relative amounts of sales;
 - (d) The customer type;

- 44 (e) The relative number of employees;
- 45 (f) Hours of operation;
- 46 (g) Amount and frequency of deliveries;
- 47 (h) Building and site arrangement;
- 48 (i) Types of vehicles used and their parking demands;
- 49 (j) The number of vehicle trips generated;
- 50 (k) Signs;
- 51 (l) How the proposed use is advertised;
- 52 (m) The likely impact on surrounding properties; and
- 53 (n) Whether the activity is likely to be found independent of the other activities on the site.
- 54 4. Prohibited uses within the applicable zoning district or uses for which the administrator
- 55 determines there is not a materially similar use in the matrix may be permitted through the
- 56 application of a conditional zoning district in accordance with the provisions set forth in Chapter
- 57 16.
- 58 C. *Use matrix.* The following matrix sets forth the manner by which certain uses may be permitted within
- 59 the various districts set forth above.
- 60 1. "P" denotes those uses that are permitted "by right."
- 61 2. "—" denotes those uses that are not permitted within the given district.
- 62 3. "SUP" denotes those uses that are permitted upon issuance of a special use permit in accordance
- 63 with the provisions set forth in Chapter 16. Additional standards for certain uses requiring a
- 64 special use permit are set forth in Chapters 3 and 5 of this ordinance.
- 65 4. "PS" denotes those uses that are permitted with additional standards, which are set forth in
- 66 Chapter 3.
- 67 5. "MHD" denotes those uses that are permitted within a Manufactured Housing Overlay District.

CATEGORY	SECTION (a)	USE	ZONING DISTRICTS						
<i>Residential</i>			GR	RMX	NMX	DMX	CMX	IC	GI
Household Living	3.5.1	Dwelling—Single-Family	P	P	—	—	—	P	—
		Dwelling—Duplex	P	P	P	—	—	P	—
		Dwelling—Multifamily 3—4 units/bldg.	P	P	P	P	P	P	—
		Dwelling—Multifamily more than 4 units/bldg.	—	P	P	P	P	P	—
		Dwelling—Townhome	P	P	P	P	P	P	—
		Manufactured Home (single unit)	MHD	MHD	MHD	MHD	MHD	MHD	—
		Manufactured Home Park	MHD	MHD	MHD	MHD	MHD	MHD	—
		Live-Work Units	<u>PS</u>	<u>PS</u>	<u>PS</u>	<u>PS</u>	—	<u>PS</u>	—
		<u>Mixed-Use Residential Unit</u>	<u>=</u>	<u>=</u>	<u>PS</u>	<u>PS</u>	<u>PS</u>	<u>PS</u>	<u>=</u>

Group Living	3.5.2	Family Care Home (Less than 6 residents)	P	P	P	P	P	P	—
		Housing Services for the Elderly	SUP	P	P	P	P	P	—
		Rooming or Boarding House	P	P	P	P	P	P	—
Social Services	3.5.3	Group Care Facility (6 or more residents)	P	P	P	P	P	P	—
		Shelter	— SUP	— P	P	P	P	P	—
Lodging			GR	RMX	NMX	DMX	CMX	IC	GI
Overnight Accommodations	3.6.1	All overnight accommodations, except as listed below	—	—	—	P	P	P	—
		Bed and Breakfast	PS	PS	PS	PS	PS	PS	—
		Short-Term Rental	PS	PS	PS	PS	—	—	—
Camping	3.6.2	Campground/Recreational Vehicle Park	SUP	SUP	SUP	—	—	SUP	—
		Rental Cottage/Cabins	PS	PS	PS	—	—	—	—
		Seasonal Camp	PS	—	—	—	—	PS	—
Commercial			GR	RMX	NMX	DMX	CMX	IC	GI
Eating and Drinking Establishments	3.7.1	All restaurants and other eating and drinking establishments except as listed below	—	—	P	P	P	P	—
		Bar/Night Club	—	—	PS	P	P	—	—
Personal Services	3.7.2	All personal services, except as listed below	—	P	P	P	P	P	—
		Day Care Center	PS	PS	PS	PS	PS	PS	PS
Professional Services	3.7.3	All professional services, except as listed below	SUP	P	P	P	P	P	P
		Adult Establishment	—	—	—	—	—	—	SUP
		Banks, Credit Unions, Financial Services, and ATMs	—	—	P	P	P	P	P
		Funeral Homes and Services	—	—	P	P	P	P	—
		Human Crematories and Crematoriums	—	—	PS	PS	PS	PS	PS
		Indoor Animal Services	—	—	P	P	P	P	P
		Kennels and Outdoor Animal Services	—	—	SUP	—	PS	—	PS
		Landscaping and Contractor Services	SUP	SUP	SUP	—	—	—	P
		Vehicle Services—Major Repair/Body Work	—	—	—	—	PS	—	PS

		Vehicle Services—Minor Maintenance/Repair	—	—	SUP	SUP	PS	PS	PS
Retail	3.7.4	All retail and sales establishments except as listed below	—	—	P	P	P	P	—
		Alcoholic Beverage Sales Store	—	—	SUP	P	P	—	—
		Auto/Mechanical Parts Sales	—	—	—	P	P	—	P
		Gas Station	—	—	SUP	SUP	PS	—	PS
		Gunsmiths and Weapon Sales	—	—	SUP	PS	PS	—	PS
Shopping Centers	3.7.5	All shopping centers	—	—	PS	PS	PS	—	—
Civic/Institutional			GR	RMX	NMX	DMX	CMX	IC	GI
Educational	3.8.1	All educational uses except as listed below	SUP	P	P	P	P	P	—
		Colleges/Universities	—	—	SUP	P	P	P	—
		Schools—Vocational/Technical	—	SUP	P	P	P	P	P
Government	3.8.2	All government uses, except as listed below	—	P	P	P	P	P	P
		Correctional Facilities	—	—	SUP	SUP	P	P	P
		Public Safety Station	SUP	SUP	P	P	P	P	P
Medical	3.8.3	All medical offices and facilities except as listed below	—	P	P	P	P	P	—
		Hospital	—	—	—	—	P	P	—
Places of Worship	3.8.4	All religious institutions or places of worship	SUP	P	P	P	P	P	—
		Cemeteries	PS	PS	PS	PS	PS	PS	—
Entertainment/Recreation			GR	RMX	NMX	DMX	CMX	IC	GI
Indoor Recreation	3.9.1	All indoor recreation facilities, except as listed below	SUP	P	P	P	P	P	P
		Cultural or Community Facility	SUP	P	P	P	P	P	—
		Indoor Amusements	—	—	SUP	P	P	SUP	P
		Indoor Firing Range	—	—	—	—	SUP	SUP	SUP
		Live Performance Theater	—	SUP	SUP	P	P	P	—
		Movie Theater	—	—	—	P	P	—	—
		Special Event Venue	SUP	SUP	PS	PS	PS	PS	—
		Studios, Galleries and Workshops - High Impact	—		SUP	SUP	P	P	P

		Studios, Galleries and Workshops - Low Impact	—	P	P	P	P	P	—
Outdoor Recreation	3.9.2	All outdoor recreation facilities, except as listed below	SUP	P	P	P	P	P	P
		Non-Residential Swimming Pool or Pond	—	SUP	SUP	PS	PS	PS	—
		Outdoor Amusements	—	—	SUP	SUP	P	—	P
		Outdoor Firing Range	—	—	—	—	—	—	SUP
		Parks, Open Space, and Greenways	P	P	P	P	P	P	P
Agriculture			GR	RMX	NMX	DMX	CMX	IC	GI
Agriculture	3.10.1	All agricultural uses	PS	—	—	—	PS	PS	PS
Manufacturing/Wholesale/Storage			GR	RMX	NMX	DMX	CMX	IC	GI
Light Industrial and Manufacturing	3.11.1	All light industrial and manufacturing activities, except as listed below	—	—	—	—	SUP	—	P
		Brewery, Distillery, Winery, Cidery - High Impact	—	—	—	—	P	—	P
		Brewery, Distillery, Winery, Cidery - Low Impact	—	—	SUP	PS	PS	—	PS
		Laboratory	—	—	—	—	P	P	P
		Laundry, Dry Cleaning Plant	—	—	—	—	SUP	P	P
		Manufacturing Research and Development	—	—	—	—	P	P	P
		Media Production	—	—	P	P	P	P	P
Heavy Manufacturing	3.11.2	All heavy manufacturing activities, except as listed below	—	—	—	—	—	—	SUP
		Metal Products Fabrication, Machine or Welding Shop	—	—	SUP	SUP	P	—	P
Storage and Disposal	3.11.3	All storage and disposal uses, except as listed below	—	—	—	—	SUP	—	P
		Chemical Storage Facility	—	—	—	—	—	—	P
		Solid Waste Storage or Disposal Facilities	—	—	—	—	—	—	PS
		Junkyard / Salvage Yard	—	—	—	—	—	—	SUP
Wholesaling and Distribution	3.11.4	All wholesaling and distribution activities, except as listed below	—	—	—	—	P	—	P
		Equipment Rental	—	—	—	—	P	—	P
		Indoor Vehicle/Heavy Equipment Sales	—	—	PS	PS	PS	—	PS

		Outdoor Vehicle/Heavy Equipment Sales	—	—	—	—	PS	—	PS
Infrastructure			GR	RMX	NMX	DMX	CMX	IC	GI
Utilities	3.12.1	Utilities—Class 1	P	P	P	P	P	P	P
		Utilities—Class 2	P	P	P	P	P	P	P
		Utilities—Class 3	—	—	—	—	—	—	P
Telecommu- nications	3.12.2	All wireless telecommunication facilities, except as listed below	PS	PS	PS	PS	PS	PS	PS
		Wireless Telecommunication Facility—Tower	—	—	—	—	SUP	—	PS
Transportat- ion	3.12.3	Parking Lot	PS	PS	PS	PS	PS	PS	PS
		Passenger Vehicle Terminals	—	—	P	P	P	—	P
Accessory			GR	RMX	NMX	DMX	CMX	IC	GI
Residential Accessory	3.13.1	All residential accessory uses, except as listed below	PS	PS	PS	PS	PS	PS	PS
		Day Care Home	PS	PS	PS	PS	PS	PS	—
		Dwelling—Accessory Unit (ADU)	PS	PS	PS	PS	PS	PS	—
		Home Occupation	PS	PS	P	P	P	P	—
		Keeping Bees	PS	PS	PS	PS	PS	PS	PS
		Keeping Domestic Fowl (Chickens)	PS	PS	PS	PS	PS	PS	PS
		Swimming Pool or Pond	PS	PS	PS	PS	PS	PS	—
Non- Residential Accessory	3.13.2	All non-residential accessory uses, except as listed below	—	PS	PS	PS	PS	PS	PS
		Accessory Retail	—	—	PS	PS	PS	PS	PS
		Drive-Thrus	—	—	SUP	—	PS	—	—
		Mobile Food Vendor Site	=	SUP	PS	PS	PS	PS	PS
		Recycling - Small Collection	—	—	—	—	SUP	SUP	P
		Rooftop Amenity Space	—	—	SUP	PS	PS	PS	PS
		Taproom / Tasting Room	—	—	SUP	P	P	—	P
Temporary			GR	RMX	NMX	DMX	CMX	IC	GI
Events and Structures	3.14.1	All temporary events and structures, except as listed below	PS	PS	PS	PS	PS	PS	PS
		Carnivals or Circus	—	—	—	—	PS	PS	PS
		Farmers Market	—	—	PS	PS	PS	PS	—
Vendors	3.14.2	All temporary vendors, except as listed below	—	—	PS	PS	PS	—	—

		Mobile Food Vendors	—	—	PS	PS	PS	PS	PS
		Vending Pushcarts	—	—	—	PS	—	—	—

(a) This column refers to the section of this ordinance that contains the use definition and additional standards.

3.1. Purpose and intent.

This chapter defines the uses listed as uses permitted within Chapter 2 of this ordinance. Where appropriate, this section provides additional use-specific standards for those permitted with standards (PS) or permitted with a special use permit (SUP) within Chapter 2 or as otherwise specified within this ordinance.

3.2. Applicability.

The definitions included apply to a particular use regardless of the zoning district and permissions. These standards included apply to a particular use when it is designated as a use permitted with additional standards or as a use requiring a special use permit. They do not apply when a use is permitted by right. It is possible that the same use may be permitted-by-right in one district, in which case the standards contained in this chapter would not apply, and permitted with additional standards or as a special use in a different district, in which case they would.

3.3. Enforcement.

- A. As authorized by G.S. 160D-402(b), the administrator shall, from time to time, inspect uses or establishments that have been permitted in accordance with this chapter to ensure compliance with this ordinance and valid permits.
- B. The owner or operator of any such use or establishment shall give the administrator free access to such building, structure, dwelling, or premises at any reasonable hour for the purpose of such inspection.
- C. The administrator shall take reasonable steps to ensure violations of special use permits, or permits with additional standards are remedied in accordance with the procedures set forth in Chapter 18 of this ordinance.
- D. Permits shall be revoked following the same process as approval pursuant to Section 16.13.
- E. A permittee may appeal a decision of the administrator in accordance with the procedures set forth in Section 16.4 of this ordinance.

3.4. Additional Standards.

- A. The requirements of this chapter apply to the indicated use when such use is either a use permitted with additional standards or a use requiring a special use permit. These standards are in addition to other applicable standards contained in this ordinance.
- B. In addition to the requirements set forth in this chapter and elsewhere in this ordinance, the board of adjustment shall have broad authority to attach other conditions to a special use permit as are necessary for the protection of the public health, safety and welfare.
- C. In addition to the requirements set forth in this chapter and elsewhere in this ordinance, the administrator may attach other conditions to a use permitted with standards as are necessary for the protection of the public health, safety and welfare and to reduce conflicts between the use and surrounding neighborhood; i.e., traffic, noise attenuation, special parking needs, and hours of operation.

3.5 Residential Uses

1. Household Living Use Category

A. Household Living

1. Definition: Residential occupancy of a dwelling unit by a household. Household living includes the following uses:

- i. Dwelling – Single-family;
- ii. Dwelling – Duplex;
- iii. Dwelling – Multifamily 3-4 units/building;
- iv. Dwelling – Multifamily more than 4 units/building;
- v. Dwelling – Townhome;
- vi. Manufactured Home (single unit);
- vii. Manufactured Home Park; and
- viii. Live-Work Units

~~2. Additional Standards:~~

- ~~i. Within NMX, DMX, and CMX districts, residential uses are permitted only on the second or higher floor of any structure where the ground floor is used for non-residential purposes; or as part of a group development, or conditional district, in which event they shall not be subject to the foregoing limitation.~~

B. Dwelling—Single-family

1. Definition: A free-standing building designed for and/or occupied by one household. These residences may be individually owned as residences or owned by rental or management companies. Single-family dwellings are typically site-built structures that comply with the North Carolina Residential Building Code, current edition, but also include factory-built, modular home units.

C. Dwelling—Duplex:

1. Definition: A building containing two residential dwelling units that is typically divided horizontally, each unit having a separate entrance from the outside or through a common vestibule.

D. Dwelling—Multi-family (three or four units/building)

1. Also known as a Triplex or Quadraplex
2. Definition: A building containing three or four residential dwelling units. Each unit has a separate entrance from the outside or through a common vestibule. Multi-family dwellings may include triplexes or fourplexes (buildings under one ownership with three or four dwelling units in the same structure),

E. Dwelling—Multi-family (more than four units/building):

1. Definition: A building containing more than four residential dwelling units. Each unit has a separate entrance from the outside or through a common vestibule. These structures may include apartments (five or more units under one ownership in a single building)

F. Dwelling – Townhome

1. Definition: A building that contains three or more separate dwellings divided vertically and connected by shared walls. Each unit has a separate entrance to a front and/or rear

yard. This definition includes subdivisions where townhomes are located on zero-lot line properties where common walls are situated on one or more lot lines.

G. *Manufactured home*

1. Definition: A dwelling unit fabricated in an off-site manufacturing facility for installation or assembly on the building site which also meets the following requirements:

- i. It is at least eight feet in width and 32 feet in length;
- ii. It is placed upon a permanent foundation which meets the installation and foundation requirements adopted by the N.C. Commissioner of Insurance;
- iii. It is not constructed or equipped with a permanent hitch or other device allowing it to be moved other than for the purpose of moving to a permanent site; and
- iv. It does not have any wheels or axles permanently attached to its body or frame.

2. Additional Standards:

- i. This definition does not include recreational vehicles.
- ii. Manufactured homes are permitted with standards in the Manufactured Home Overlay District.
- iii. Dwelling units built to, or utilizing any of, the following as primary construction standards are NOT considered manufactured homes suitable for use as permanent dwelling units: National Electrical Code Article 551; National Fire Protection Association No. 1192; and American National Standards Institute No. 119.5.

H. *Manufactured home park:*

1. Definition: The location of two or more manufactured homes or manufactured home spaces on a single parcel of land, or a grouping of two or more manufactured homes on at least two contiguous parcels when such parcels are under common ownership and/or management as a park for the rental of manufactured homes or manufactured home spaces.

2. Additional Standards:

- i. Manufactured home parks are permitted with standards in the Manufactured Home Overlay District.
- ii. Preexisting manufactured home parks.
 1. Any manufactured home park, as defined by this chapter, existing on the effective date of this chapter or any subsequent amendment thereto may continue to operate without being subject to the requirements of this chapter except where explicitly set forth below.
 2. Expansions to a pre-existing manufactured home park shall occur in a manner that fully conforms to the requirements of this ordinance. Expansions shall not occur in districts within which manufactured home parks are not permitted.
- iii. A manufactured home park space shall be considered preexisting if, on the effective date of this chapter, the space:
 1. Is defined on the ground by the presence of all of the following:
 - a. A water supply system service connection;
 - b. A connection to a septic system or sanitary sewer; and

- 191 c. Electric service equipment.
- 192 2. Or, contains an occupied manufactured home connected to each of the
- 193 preceding utilities.
- 194 iv. Permitting.
- 195 1. Each application for a manufactured home park shall be accompanied
- 196 by development plans as required by Chapter 17, including contoured
- 197 site plans (five-foot intervals) using true elevations. Development plans
- 198 shall show the circulation pattern, manufactured home spaces,
- 199 permanent structures and other site design requirements.
- 200 Development plans shall also show that all improvements would meet
- 201 the following standards.
- 202 2. Prior to the placement, replacement, modification, or setup of a
- 203 manufactured home within any manufactured home park or on an
- 204 individual lot of record within the regulatory jurisdiction of the City of
- 205 Brevard, the manufactured home or agent thereof shall procure a land
- 206 development permit from the City of Brevard and a manufactured
- 207 home setup permit from the Transylvania County Building Inspections
- 208 Department.
- 209 v. Dimensional specifications.
- 210 1. *Lot standards:*
- | | |
|-----------------------------|--------------|
| Minimum Development Size | 3 acres |
| Maximum Development Size | 40 acres |
| Maximum Development Density | 6 units/acre |
| Lot Width at Right-of-Way | 50 ft. |
| Minimum Lot Depth | 150 ft. |
- 211 2. *Principal structure standards:*
- | | |
|---|--------|
| Development setback on all boundaries | 50 ft. |
| Unit setback from internal street centerline | 25 ft. |
| Distance between homes-short side to short side | 20 ft. |
| Distance between homes-long side to short side | 20 ft. |
| Distance between homes-long side to long side | 30 ft. |
| Setback from public right-of-way | 50 ft. |
| Maximum Height | 35 ft. |
- 212 vi. General requirements (new and pre-existing).
- 213 1. All manufactured home park roads, spaces, and the manufactured
- 214 homes therein shall fully comply with the road naming and property
- 215 addressing ordinances of the City of Brevard or Transylvania County, as
- 216 applicable.
- 217 2. The owner and/or operator of a manufactured home or manufactured
- 218 home park shall not sell manufactured homes on or within a
- 219 manufactured home park unless the manufactured home unit for sale is
- 220 placed individually and separately upon an existing manufactured
- 221 home space where all design standards and utilities have been
- 222 completed as specified by this ordinance. This does not prohibit the
- 223 manufactured home park owner and/or operator from owning or
- 224 operating a retail sales business on adjoining property if such use is
- 225 permitted within the underlying district.

- 226 3. All manufactured homes placed upon an individual lot of record or
227 within a manufactured home park shall be built according to Housing
228 and Urban Development standards, and shall bear a label or seal
229 indicating compliance with this requirement. Any manufactured home
230 unit that does not bear a label or seal of compliance of a recognized
231 testing laboratory, such as Underwriters Laboratories or similar testing
232 service, shall be subject to inspection by the building inspector.
- 233 4. Recreational vehicles (RV), park model RV's, and other structures that
234 are not constructed to the United States Department of Housing and
235 Urban Development Standards or to North Carolina Building Code shall
236 not be permitted with any manufactured home park, nor shall such
237 structures become occupied within any other property within the
238 jurisdiction of the City of Brevard, except as otherwise provided for in
239 this ordinance.
- 240 5. At least ten percent of the total area of any manufactured home park
241 containing 35 or more spaces and situated one-quarter of a mile or
242 more from a public recreational facility shall be set aside for
243 recreational purposes, except that open space as required in Chapters 6
244 and 7 of this ordinance may be applied to no more than 75 percent of
245 such recreation space.
- 246 vii. Manufactured home park streets.
- 247 1. Convenient access to each manufactured home space shall be provided
248 by streets or drives that are properly graded, drained, and paved with a
249 durable dustless surface, for automobile circulation.
- 250 2. Manufactured home parks containing ten or more units shall be
251 serviced by a central drive that is constructed in accordance with the
252 requirements for a new neighborhood street as set forth in Chapter 13.
253 Streets entering branching from the central drive shall also be built
254 according to neighborhood street dimensions. However, a sidewalk and
255 curb/gutter shall not be required.
- 256 3. Any tract of land to be developed as a manufactured home park must
257 either have frontage on a public (state or city-maintained) road or have
258 a private right-of-way corridor to the property. The minimum required
259 length of the public road frontage or width of the private right-of-way
260 corridor (at its narrowest point) shall be 50 feet.
- 261 4. Off-site access shall have a minimum 20-foot cleared, unobstructed
262 corridor, with a vertical clearance of at least 14 feet to allow passage of
263 emergency vehicles.
- 264 5. The grade of any road, existing or proposed, within an off-site private
265 right-of-way corridor used to access a manufactured home park shall
266 not exceed 15 percent.
- 267 6. Publicly dedicated rights of way shall not be required, and maintenance
268 of such streets shall be provided for by the owner and/or operator of
269 the manufactured home park.
- 270 7. Culs-de-sac shall not exceed 250 feet in length and shall be provided
271 with a turnaround of at least 60 feet in diameter. Streets or drives
272 within the manufactured home park shall intersect as nearly as
273 possible at right angles, and no street shall intersect at less than 60
274 degrees. Where a street intersects a public street or road, the design

standards of the North Carolina Department of Transportation shall apply.

8. Proposed streets shall be named, and addresses for manufactured home spaces along such streets assigned, by the Transylvania County Property Addressing Coordinator in accordance with the provisions set forth in the City of Brevard Property Addressing Ordinance or the Transylvania County Property Addressing Ordinance, as applicable.
9. A minimum of two automobile parking spaces (paved with a durable, dustless surface) shall be provided adjacent to each manufactured home space, but shall not be located within any public right-of-way or within any street in the park.
10. All spaces within a manufactured home park shall be serially numbered for mailing address purposes. These numbers shall be displayed on each manufactured home space.

viii. Manufactured home space.

1. Each manufactured home space shall be clearly defined by means of concrete or iron pipe markers placed at all corners.
2. Each manufactured home space shall be located on ground not susceptible to flooding and graded so as to prevent any water from ponding or accumulating on the premises.
3. The manufactured home space shall be provided with anchors and tie-downs such as cast-in-place concrete "dead men" eyelets embedded in concrete foundations or runways, screen augers, arrowhead anchors, or other devices securing the stability of the manufactured home. Each manufactured home unit shall comply with the above standards or similar standards whichever are higher. Each manufactured home owner shall be responsible for securing his individual manufactured home to anchors provided by the manufactured home park operator.

ix. Utility requirements.

1. An accessible, adequate, and potable supply of water shall be provided in each manufactured home park. All manufactured home parks within 300 feet of city water or sewer shall connect thereto. When a municipal or public water supply is not available, a community water supply shall be developed, and its supply used exclusively in accordance with the standards of the Sanitary Engineering Division of the North Carolina Division of Health Services and the Transylvania County Health Department. Evidence of the issuance of necessary county or state permits shall be a condition of approval of any ~~special-use permit~~special-use permit for a manufactured home park.
2. Adequate and safe sewage disposal facilities shall be provided in all manufactured home parks. Where a public sewage collection system is available, connection shall be made thereto, and the system and sewage treatment plants complying with the requirements of the North Carolina Department of Environmental Quality shall be provided. Plans for sewage collection systems and treatment facilities shall be submitted to the North Carolina Department of Environmental Quality. Individual septic tank systems can be considered, if soil, topography, and groundwater conditions are favorable. If septic tanks are used, they will be subject to approval by the Transylvania County Health Department.

- 325 3. All utilities within the proposed manufactured home park shall be
326 located underground.
- 327 4. Failure to maintain an operational sewage disposal system shall
328 constitute grounds for the revocation of a category III land
329 development permit and the application of all applicable penalties as
330 set forth in this ordinance.
- 331 x. Solid waste.
- 332 1. The storage, collection, and disposal of solid waste in the manufactured
333 home park shall be so conducted as to create no health hazards, rodent
334 harborage, insect breeding areas, accident or fire hazards or pollution.
- 335 2. All solid waste containing garbage shall be stored in standard fly-tight,
336 watertight, rodent-proof containers, with a capacity of not more than
337 32 gallons, which shall be located not more than 150 feet from any
338 manufactured home space. Containers shall be provided in sufficient
339 number and capacity to properly store all solid waste containing
340 garbage. The manufactured home park owner and/or operator shall be
341 responsible for the proper storage, collection, and disposal of solid
342 waste as specified by the Transylvania County Health Department.
- 343 3. Containers shall be installed in the ground or provided with stands.
344 Such container stands shall be so designed as to prevent containers
345 from being tipped, to minimize spillage and container deterioration,
346 and to facilitate cleaning around them.
- 347 4. All solid waste garbage shall be collected at least once weekly. Where
348 suitable collection service is not available from municipal or private
349 agencies, the manufactured home park owner and/or operator shall
350 dispose of the solid waste by collecting and transporting it in
351 conformance with requirements and guidelines set forth by the North
352 Carolina State Board of Health and the Transylvania County Health
353 Department.
- 354 xi. Grounds, buildings, and structures.
- 355 1. Grounds, buildings, and structures shall be maintained free of insect
356 and rodent harborage and infestation. Extermination and control
357 methods shall conform to the requirements of the County Health
358 Department and/or North Carolina Department of Agriculture.
- 359 2. Parks shall be maintained free of accumulation of garbage, litter, or
360 other debris which may provide rodent harborage or breeding places
361 for flies, mosquitoes, and other pests, or which may pose other health
362 or sanitation hazards, or which may contribute to an otherwise
363 unsightly or unpleasant environment.
- 364 3. Storage areas shall be so maintained as to prevent rodent harborage
365 and shall not pose a safety hazard to manufactured home park
366 residents or guests. Lumber, pipe, and other building material shall be
367 stored at least one foot above ground.
- 368 4. All manufactured homes shall be properly skirted with non-opaque
369 wood, aluminum, vinyl, or other appropriate material. Plastic, plywood,
370 particle board, carpet, or other atypical skirting material shall not be
371 used.

- 372 5. Where the potential for insect and rodent infestation exists, all exterior
373 openings in or beneath any structure shall be screened with wire mesh
374 or other suitable materials.
- 375 6. Landscaping and vegetation in and around the manufactured home
376 park shall at all times be maintained, and landscaping provisions of the
377 park plan shall at all times be adhered to. The growth of bushes, weeds,
378 and grass shall be controlled so as to prevent the harborage of ticks,
379 chiggers, and other noxious insects. Parks shall be so maintained as to
380 prevent the growth of ragweed, poison ivy, poison oak, poison sumac,
381 and other noxious weeds considered detrimental to health. Open
382 spaces and recreation areas shall be maintained free of heavy
383 undergrowth of any description.
- 384 7. No inoperable vehicle shall remain in a manufactured home park for a
385 period longer than 60 days unless the vehicle is stored under a carport
386 or within a garage.
- 387 8. Manufactured and mobile homes shall not be abandoned or stored
388 within the regulatory jurisdiction of the City of Brevard. Manufactured
389 homes that have been disconnected from active electricity, water, and
390 sewage for a period exceeding 90 days shall be removed and properly
391 disposed of. Manufactured homes located outside of a manufactured
392 home space for a period to exceed 45 days shall be removed and
393 properly disposed of.
- 394 9. Manufactured homes shall not be utilized for storage or other non-
395 residential uses of any type.

396 xii. Registration of occupant.

- 397 1. Every manufactured home park owner or operator shall maintain an
398 accurate register. The register shall be available for inspection at all
399 times by authorized city representatives. The register shall contain the
400 following information on forms provided by the planning department:
401 (1) Name of owner and/or occupant; (2) manufactured home space
402 number; (3) make, model, registration number of manufactured home;
403 and (4) date of arrival and departure of the occupants. Records shall be
404 maintained for a period of three years.

405 xiii. Inspection and enforcement.

- 406 1. The park owner and/or operator shall notify park occupants of all
407 applicable provisions of the ordinance and inform them of their duties
408 and responsibilities under this ordinance.
- 409 2. The owner and/or operator shall operate the park in compliance with
410 this ordinance, Brevard City Code, Transylvania County Code (as
411 applicable), and state and federal law, and shall provide adequate
412 supervision to maintain the park, its facilities and equipment in good
413 repair and in a clean and sanitary condition.
- 414 3. The City of Brevard Planning Department, the Transylvania County
415 Health Department and the Transylvania County Building and
416 Inspections Department are hereby authorized and directed to make
417 such inspections as are necessary to determine satisfactory compliance
418 with this ordinance. It shall be the duty of the owners and/or operators
419 or occupants of manufactured home parks to give these agencies free
420 access to such premises at reasonable times for the purpose of
421 inspection.

4. So long as a violation exists the administrator shall not issue permits that would authorize the placement, replacement, setup, or modification of a new or existing manufactured home within the subject park.

I. *Live-work unit:*

1. Definition: A residential building type that consists of both a residential use and a non-residential use that is allowed in the applicable zoning district. ~~Typically, the enterprise or non-residential use is located on the ground floor and the residential unit is above or behind.~~
2. Additional Standards:
 - i. Typically, the enterprise or non-residential use is located on the ground floor and the residential unit is above or behind.
 - ii. Non-residential uses within a live-work unit must be listed within Section 2.2.C as a permissible use within the district in which the live-work unit is proposed and such non-residential use must be approved by means of the appropriate permitting process.
 - iii. In districts where residential building types are not permitted live-work units may be permitted within pre-existing non-conforming residential structures.

J. Mixed-use residential unit:

1. Definition: A non-residential building type that consists of both a residential use and a non-residential use that is allowed in the applicable zoning district.
2. Additional Standards:
 - i. The enterprise or non-residential use shall be located on the ground floor and the residential unit is above.
 - ii. Non-residential uses within a mixed-use residential unit must be listed within Section 2.2.C as a permissible use within the district in which the live-work unit is proposed and such non-residential use must be approved by means of the appropriate permitting process.

3.7 Commercial Uses

1. ***Eating and Drinking Establishments Use Category***

A. *Restaurants and Other Eating and Drinking Establishments*

- a. Definition: A retail business selling ready-to-eat food and/or beverages for on or off-premise consumption. Customers may be served from an ordering counter (i.e., cafeteria or limited-service restaurant), at their tables (full-service restaurant), and at exclusively pedestrian-oriented facilities that serve from a walk-up ordering counter (snack and/or nonalcoholic bars). This definition shall not include any mobile food vendors or other operations serving food and/or beverages from a vehicle. Eating and drink establishments include, without limitation, the following uses:
 - i. Bars and nightclubs; and
 - ii. Restaurants.

B. *Bar/nightclub:*

- a. Definition: A business where alcoholic beverages are sold for on-site consumption, which are not part of a larger restaurant. This term includes bars, taverns, pubs, and similar

establishments where any food service is subordinate to the sale of alcoholic beverages. Entertainment including live music, dancing, comedy, etc. may also be included.

b. Additional Standards:

- i. In NMX, hours of operations shall not extend past 12:00 a.m.

3.13 Accessory

2. *Non-Residential Accessory Uses*

A. *Non-Residential Accessory Use:*

- a. Definition: A use of land or of a building or structure or portion thereof, which is incidental and subordinate to a non-residential principal use on the same lot.

b. Additional Standards:

- i. Accessory uses shall adhere to the standards outlined in Section 4.8 and all other applicable sections.

B. *Accessory retail:*

- a. Definition: The on-premises, retail sale of products directly to customers, where the retail use is incidental to a primary use conducted upon the same premises. Examples include but are not limited to the following: a furniture manufacturer who operates a show floor for the display and sales of furniture produced by the manufacturer or a bicycle manufacturer who operates a floor for the display and sales of bicycles produced by the manufacturer.

b. Additional Standards:

- i. Accessory retail uses shall be directly related to and accessory to a conforming, principal use.
- ii. Products offered for sale within accessory retail uses shall be products which are produced or processed by the associated principal use, or which are directly related to, and offered in support of, products which are produced or processed by the associated principal use. For example, a manufacturer of bicycles may operate an accessory retail use wherein bicycles, which were manufactured within the principal use, are offered for direct, on-premises retail sale. Bicycle accessories (such as tires, helmets), which were not produced by the manufacturer but which clearly relate to and support products which are produced or processed by the principal use, may also be offered for sale. However, products that do not clearly relate to and support products which are produced or processed by the principal use (such as backpacking or rock-climbing gear in the case of the bicycle manufacturer) cannot be offered for retail sale.
- iii. Accessory retail uses shall comply with all applicable standards of federal, state or local law that would otherwise apply to retail oriented principal uses. For example, parking areas serving accessory retail uses within a General Industrial zoning district shall comply with the surfacing requirements of the City of Brevard Unified Development Ordinance, Chapter 10, Parking Standards, Subsection 10.6.A.1.
- iv. Accessory retail uses are limited to an area that is equivalent to 20 percent of the gross floor area of the structure(s) containing the principal use.
- v. Accessory retail uses shall be indoors, and shall not include the outdoor display of products or merchandise.

C. *Drive-thru:*

- a. Definition: A facility where food and other products or services may be purchased or obtained by motorists without leaving their vehicles. Examples include drive-through fast-

food restaurants, coffee, photo stores, pharmacies, bank teller windows, convenience stores, and dry-cleaning pick-up stores without dry cleaning equipment. This term does not include gas stations or other vehicle services, which are separately defined.

b. Additional Standards:

- i. Drive-through stacking lanes, windows, and associated equipment shall not be permitted within 50 feet of a residential district or residential use.
- ii. Drive-through windows and services shall be located and accessed only at the rear or side of the building and shall not be located between the principal structure and a public street. Service lanes shall not be located between the building and the street.
- iii. When situated at the side of the building, windows and services shall be located at least 20 feet back from the front facade of the building.
- iv. Vehicle storage for drive-through uses shall be located outside of, and physically separated from, the right-of-way of any street. This area shall not interfere with the efficient internal circulation of the site, adjacent property, or adjacent street right-of-way.
- v. Service lanes shall be a minimum of 80 feet long for a single stacking lane or 80 feet per lane when there is more than one service lane. A service lane is measured from the curb cut to the service area or the order area if an outdoor order area precedes the service area. Service lanes do not have to be linear. Stand-alone automatic teller machines shall provide stacking distance for four vehicles outside of any right-of-way, parking area, or travel lane.
- vi. Drive-through service lanes shall provide a minimum of ten stacking spaces on site for restaurant and food sale uses with drive-through facilities and a minimum of six stacking spaces on site for banking, pharmacies and similar non-food-related uses with drive-through facilities. Each stacking space shall be a minimum of nine feet by 18 feet.
- vii. A service lane is not required for accessory facilities where vehicles do not routinely stack up while waiting for the service. Examples are window washing, air compressor, and vacuum cleaning stations. A service lane is required for full-service drive-through automobile cleaning establishments.
- viii. Service lanes shall be designed so that they do not interfere with parking, parking access and vehicle circulation. Crossings shall be situated so as to minimize conflicts between pedestrians and vehicles. Where service lanes are traversed by pedestrian crossing areas, such crossings shall be clearly marked. Warning signage may be required at the discretion of the administrator in the interest of pedestrian safety.
- ix. All service lanes shall be clearly identified by means of striping, landscaping, curbing, and the like.
- x. Site access and egress shall be shared by the drive-through and inside customer service functions.
- xi. The drive-through service lane shall first exit into other circulation lanes within the same project, and then onto a public street via the same exit curb cut as the other circulation lanes within the same project.
- xii. Service lanes shall be designed for a one-way traffic pattern only.

- xiii. The drive-through shall be limited to a maximum of two service lanes and one additional lane for an automated teller machine (ATM).
- xiv. Drive-through facilities shall be screened from off-site view from adjacent properties by a Type A buffer with a minimum width of ten feet.
- xv. Speaker box sounds from the drive-through lane shall not unreasonably disturb the peace and quiet of abutting residential property.
- xvi. A traffic impact study may be required by the approving authority.

D. Mobile Food Vendor Site

a. Definition: A permanent location for licensed mobile food vendors or food trucks to offer food and beverages for sale and consumption.

b. Additional Standards:

i. Mobile food vendors shall only vend at permanent locations permitted under this section.

ii. The owner, or authorized agent thereof, of any property upon which a mobile food vendor(s) proposes to operate, shall secure a permit for the establishment of a mobile food vendor site.

iii. Mobile food vendors using the designated site shall secure all necessary permits required by the Transylvania County Health Department.

1. Mobile food vendors must follow all applicable rules and requirements of the Transylvania County Health Department and any other relevant agencies of Transylvania County or the State of North Carolina.

2. In the issuance of permits for mobile food vendor sites and mobile food vendors, the administrator shall have broad discretion to assign such conditions as may be necessary to protect the health, safety, and welfare of the public.

iv. Number of mobile food vendor sites:

1. In NMX and DMX zoning districts, only 1 mobile food vendor site shall be permitted per parcel.

2. In CMX, IC, and GI zoning districts, each parcel is permitted up to 3 mobile food vendor sites, so long as all other separation and site requirements as set forth in this section are met.

3. Additional mobile food vendor sites may be permitted with the issuance of a special use permit in accordance with Chapter 16.

v. Separation requirements:

1. Mobile food vendors shall be situated at least 10 feet from all property lines and any road right-of-way, shall not encroach onto any street, sidewalk, or travel way, and shall not obstruct any loading zone or handicapped parking space.

a. This requirement shall not apply to special events approved by the city for placement upon public streets.

2. Mobile food vendors shall be situated at least 20 feet from one another.

3. Mobile food vendors shall be situated at least 25 feet from any permanent structures.

a. The administrator may, upon recommendation of the fire marshal, approve the placement of mobile food vendors within 25 feet or less of a permanent structure. Such approval shall be based upon building

600 type, building materials, existing fire breaks, and other pertinent
601 information. Such reductions shall be reviewed on a case-by-case basis,
602 at the discretion of the administrator.

603 b. There shall be no reduction in separation between mobile food vendors
604 and permanent structures within the downtown fire district.

605 4. Mobile food vendors shall be situated at least 200 feet from any residential
606 structure that is located within GR zoning district.

607 5. Mobile food vendors must be set back a minimum of ten feet in all directions
608 from fire hydrants.

609 vi. Power.

610 1. Outside of the Heart of Brevard district, generators may be used to power the
611 vending unit. Within the Heart of Brevard only dedicated power supplies shall
612 be used.

613 2. For dedicated power supplies the applicant must present documentation that
614 power load supplied to the vehicle is sufficient to meet the vehicles needs while
615 in operation.

616 vii. Hours of operation for mobile food vendors shall be limited to 7:00 a.m. to 10:00 p.m.,
617 except during an approved special event, when other operating hours may be
618 established as part of the event.

619 viii. Mobile food vendor operators or their designee must be present at all times during
620 operation, except in the event of an emergency.

621 ix. Each food truck shall supply at least one waste receptacle which must be removed and
622 emptied at the end of each day. city trash receptacles shall not be used for food truck
623 waste.

624 x. Mobile food vendor signage shall be limited to the following:

625 1. Mobile food vendors shall be allowed signage only as described in Chapter 12 of
626 this Ordinance.

627 2. Nothing in this Ordinance shall be construed to mean that mobile food vendor
628 vehicles cannot be painted or decorated, or display menus affixed to the side(s)
629 of the vendor vehicle.

630 ~~D.~~E. Recycling—Small collection:

- 631 a. Definition: A location where the public may donate, redeem or sell recyclable materials,
632 which occupies an area of 350 square feet or less. Such facility may include the following: a
633 mobile unit; bulk reverse vending machines or a grouping of reverse vending machines
634 occupying more than 50 square feet; and kiosk-type units that may include permanent
635 structures.

636 ~~E.~~F. Rooftop amenity space:

- 637 a. Definition: A covered or uncovered space on a building rooftop that is intended to be an
638 accessory use for residents of a building or mixed-use building type or for the patrons of a
639 commercial building.

640 b. Additional Standards:

- 641 i. Any structure on a rooftop amenity space shall not exceed 12 feet in height.
642 ii. The rooftop amenity space shall not be enclosed.
643 iii. No sign affixed to any structure in a rooftop amenity space shall be visible from the
644 street.

F.G. Taproom or Tasting Room:

- a. Definition: An area that is ancillary to the production of beer or other types of alcohol at a brewery, distillery, winery, cidery, etc. where the public can purchase and/or consume the alcoholic beverage produced on site.

3.14 Temporary

1. Temporary Events and Structures Category

1. Temporary events and structures:

- a. Definition: An activity or use of land which, having met certain requirements and conditions, may be permitted for a period of limited duration, and which may utilize "temporary structures" for the duration of the event. Examples of these activities include, without limitation, the following:
 - i. carnivals or circuses;
 - ii. contractor's office and equipment sheds
 - iii. farmers markets;
 - iv. outdoor meetings;
 - v. satellite real estate sales office;
 - vi. seasonal structures; and
 - vii. special events
- b. Additional Standards:
 - i. In the consideration of any temporary use, structure or special event, the administrator shall have broad discretion to impose such conditions as may be necessary to protect the health, safety and welfare of the public.
 - ii. The use shall clearly be of a temporary nature.
 - iii. The use shall be limited to a period not to exceed 90 days except as otherwise provided.
 - iv. The use shall not obstruct any public travel way except by specific approval by the city and will cause no traffic congestion;
 - v. The use shall not create a nuisance to surrounding uses.
 - vi. The use shall not create hazards or adverse impacts related to parking, drainage, fire protection, or other adverse impacts.
 - vii. The operator shall provide a plan for the management of waste generated by the use, and sanitary facilities if the administrator or health department deems it is necessary.
 - viii. The operator shall satisfy all other requirements of the director of public health, the building inspector or the fire marshal.
 - ix. The operator shall secure a business license, street closure permit, sidewalk closure permit, or parade permit if required.
 - x. The applicant and/or operator shall promote the temporary use or special event as tobacco and nicotine free (including, but not limited to smoking, vaping, dipping, and chewing).
 - xi. A minimum of five parking spaces shall be designated for use by patrons of the temporary use, structure or special event. In all cases, the applicant shall

- 687 demonstrate that there will be adequate parking for the existing uses as well as the
688 temporary use, structure or special event.
- 689 xii. Temporary use, structures, and special event may be permitted within developed
690 parking lots that serve a principal structure(s), the hours of operation of which are
691 the same as the use, structure or event, only when the number of existing parking
692 spaces exceeds the minimum number of spaces that are required for the principal
693 structure(s) by a minimum of five parking spaces, plus the number of parking
694 spaces to be rendered unusable within the area of the use, structure, or event.
- 695 xiii. The total area of a temporary use or special event, including tents, display areas, and
696 other appurtenances of the use, shall not exceed 2,000 square feet. This requirement
697 shall not apply to the following categories of temporary uses or special events:
- 698 1. Special events, upon approval by the administrator.
- 699 2. Farmers markets.
- 700 3. Carnivals and circuses.
- 701 ~~4. Temporary vendors on undeveloped, vacant lots.~~
- 702 ~~5. Temporary vendors on developed properties containing principal~~
703 ~~structures, where the hours of operation of the principal structure does not~~
704 ~~conflict or overlap with the hours of operation of the temporary use, and~~
705 ~~when the property is wholly owned or leased by the operator of the~~
706 ~~temporary use.~~
- 707 xiv. Tents and structures:
- 708 1. Applicants shall provide flame retardancy certifications for all tents.
- 709 2. Temporary structures shall not exceed 120 square feet. Tents, shipping
710 containers, satellite offices and classrooms, and equipment sheds shall not
711 be subject to this requirement.
- 712 3. Seasonal greenhouses, tents, and other temporary structures may be
713 permitted for a period not to exceed 90 days. These structures must be
714 removed on the expiration date of the permit.
- 715 4. A satellite office and equipment shed may be permitted in any district for a
716 period covering the construction phase of a project, not to exceed one year,
717 provided that such office be placed on the property on which the project is
718 situated.
- 719 5. The administrator may approve the temporary set-up and occupancy of
720 recreational vehicles (or other temporary dwellings in consultation with
721 the building inspector) when the principal residence of the occupant has
722 been destroyed by wind, fire, movement of earth, or other manmade or
723 natural disaster, and subsequent to such event having been declared a
724 disaster by the Mayor of the City of Brevard, the County Manager of the
725 County of Transylvania, the Governor of the State of North Carolina, or the
726 President of the United States. In no case shall such a vehicle or temporary
727 dwelling be set up or occupied for a period exceeding 180 days. The setup
728 or occupancy of a recreational vehicle shall not be permitted within the City
729 of Brevard for any other reason whatsoever, except as otherwise provided
730 for in this ordinance.
- 731 6. Shipping containers shall only be permitted to be used for [temporary](#)
732 storage and must be in conjunction with a non-residential use.
- 733 xv. Site layout:

1. Temporary uses, structures and special events shall be arranged so as to maximize public safety, to minimize conflicts among vehicles and pedestrians, to minimize conflicts with existing, permanent uses.
 2. Temporary uses, structures and special events shall be situated at least ten feet from all property lines and any road right-of-way, shall not encroach onto any street, sidewalk, or travel way, and shall not obstruct any loading zone or handicapped parking space. This requirement shall not apply to special events approved by the city for placement upon public streets.
 3. Temporary uses, structures and events may obstruct travel ways within parking lots only upon determination by the administrator that such obstruction will not impede commerce, hinder the flow of traffic or endanger the safety of motorists or pedestrians. Uses, structures or events shall be clearly delineated and separated from areas of active vehicle operation by means of traffic safety cones, signage, flagging, or other approved means.
 4. Temporary uses, structures and special events shall be situated at least ten feet from points of ingress and egress, and shall not obstruct the sight triangle at any intersection. Ingresses and egresses to the temporary uses, structures and special events shall be designated.
- xvi. The administrator shall require an operations and site plan for each temporary use, structure, or special event, and shall require written permission for the operation of the temporary use, structure or special event by the owner(s) of the subject property.
 - xvii. The administrator may require that the operator provide a performance bond in the amount of 125 percent of the cost of removal of the use and restoration of the site, as authorized by G.S. 160D-702.
 - xviii. The temporary use, structure or special event shall comply with all other applicable provisions of City Code.
2. *Carnival or Circus*
- a. Definition: A business providing temporary outdoor commercial entertainment, which may consist of sideshows, concessions, rides, games of chance, and other amusements.
 - b. Additional Standards:
 - i. Carnivals and circuses may be permitted for a period not to exceed 21 days.
 - ii. Carnivals and circuses shall only be permitted within undeveloped, vacant lots, or within developed parking lots that serve a principal structure, which structure is unoccupied for the duration of the carnival or circus.
 - iii. Carnivals and circuses shall not employ registered sex offenders.
3. *Farmers markets:*
- a. Definition: Venues wherein multiple vendors sell or offer for sale, seasonal products directly to consumers on a non-wholesale basis. Farmers markets shall be accessible to the general public and managed by public or non-profit entities. Farmers markets are a form of temporary use.
 - b. Additional Standards:
 - i. Vendors may offer seasonal horticultural, agricultural, aquacultural or forest products, including but not limited to raw fruits, vegetables, perennials, annuals bulbs, dried flowers, Christmas trees, and similar products.

- 780 ii. Vendors may offer value-added horticultural, agricultural, aquacultural or forest
781 products which were produced by the vendor, including but not limited to baked
782 goods, meat, dairy, honey, cider, preserves, relishes, jams, jellies and similar
783 products.
- 784 iii. Vendors may offer hand-made crafts and works of art which were produced by the
785 vendor; provided, however, that such products shall not exceed 25 percent of all
786 products sold within the venue on any given day of operation.
- 787 iv. Vendors may offer food items prepared by the vendor; provided, however, that such
788 products shall not exceed 25 percent of all products sold within the venue on any
789 given day of operation, and provided that the vendor shall comply with all
790 applicable requirements of the director of public health and the North Carolina
791 Department of Agriculture.
- 792 v. The sale of live animals is prohibited.
- 793 vi. All vendors, including vendors utilizing vending push carts, shall situate products
794 for sale, as well as associated vehicles, push carts, tents, tables or other materials
795 within a designated vending space as delineated upon a site plan provided to the
796 administrator in accordance with paragraph C.3., below.
- 797 vii. The operator shall provide the administrator an operations plan, operating rules,
798 and a list of the names of the vendors (persons, firms or corporations) who shall
799 provide merchandise for sale as part of the market. The list shall generally describe
800 the type of item to be sold by each said vendor.

801 **2. Temporary Vendors Use Category**

802 **A. Temporary Vendors:**

803 a. Definition: Any vendor who sets up a temporary location to sell food, goods, or services.
804 Vendors may be permitted individually or as part of a temporary event (Section 3.14.1).

805 Temporary vendors include, but are not limited to:

806 i. Agricultural and non-agricultural roadside vendors and

807 ii. vending pushcarts.

808 b. Additional Standards:

809 i. Temporary vendors, excluding those listed below, may be permitted one tent,
810 which shall not exceed 1,500 square feet in area. Temporary vendors shall employ
811 no other temporary structure.

812 ii. Temporary vendors shall be allowed signage only as described in Chapter 12 of
813 this Ordinance.

814 iii. No temporary vendor shall:

815 1. Sell, barter, exchange or attempt to sell any goods, wares or merchandise
816 from any city street or from any passenger vehicle or trailer. This
817 prohibition shall not apply to vending carts ~~or mobile food vendors~~ as set
818 forth below. This prohibition may be waived by the administrator for
819 special events recognized by the city, provided that the applicant satisfies
820 all permit requirements of section 66-7 and complies with article I of
821 chapter 66 and other applicable provisions of Brevard City Code.

822 2. Vend on any street or sidewalk where vending is otherwise prohibited.

823 3. Vend between 9:00 p.m. and 7:00 a.m. of the following day, except during
824 city-approved festivals and events.

- 825 4. Sell food or beverages for immediate consumption unless the operator has
826 available for public use his own or a public litter receptacle which is
827 available for ~~his~~ patrons' use and no more than ten feet distant from ~~his~~
828 ~~the pushcart or mobile food unit~~ vending location.
- 829 5. Leave the designated location without first picking up, removing and
830 disposing of all trash or refuse remaining from sales made.
- 831 6. Solicit or conduct business with persons in motor vehicles.
- 832 7. Sell anything other than that which the operator is licensed to vend.
- 833 8. Sound or permit the sounding of any device which produces noise, or use
834 or operate any sound system, radio, sound amplifier or speaker to attract
835 the attention of the public.
- 836 9. Vend within 50 feet of any driveway entrance to a police or fire station, or
837 within ten feet of any other driveway or of any alley.
- 838 10. Vend within ten feet of the crosswalk at any intersection.
- 839 11. Vend within ten feet of any fire hydrant or fire escape.
- 840 12. Allow any item relating to the operation of the vending business to lean
841 against or hang from any building or other structure lawfully placed on
842 public property, without the owner's permission.
- 843 13. Vend within ten feet of any building.
- 844 iv. The application for a temporary vending permit shall include:
- 845 1. The name and address of the applicant, and the name and address of the
846 owner of the vending business or of the cart to be used in the operation of
847 the vending business.
- 848 2. A description of the type of food, beverage or merchandise to be sold.
- 849 3. A description (including the size) and a photograph of any pushcart to be
850 used in the operation of the business, including the license and
851 registration number of any motor vehicle used in the operation of the
852 business.
- 853 4. A copy of any approval required by the county health department,
854 building inspector, or fire marshal.
- 855 5. Proof of an insurance policy, issued by an insurance company licensed to
856 do business in the state, protecting the permittee and the property owner
857 (including the city in the case of pushcart operators) from all claims for
858 damages to property and bodily injury, including death, which may arise
859 from operations under or in connection with the permit. Such insurance
860 shall name the property owner as additional insured and shall provide
861 that the policy shall not terminate or be canceled prior to the expiration
862 date without 30 days' advance written notice to the city. Policies covering
863 pushcart operators shall conform to the minimum coverage requirements
864 as set forth by the city manager.
- 865 6. The federal and state tax identification numbers of the owner of the
866 business, and copies of the owner's pre-printed North Carolina sales and
867 use tax forms for the months of proposed operation.
- 868 v. All permits issued under this section shall be displayed in a prominent location at
869 all times during the operation of the vending business.

- 870 vi. Any temporary vendor's permit may be denied, suspended or revoked by the
871 administrator for fraud or misrepresentation in the application for the permit or in
872 the conduct of the business, for conduct of the business in such a manner as to
873 create a public nuisance or constitute a danger to the public health, safety, welfare
874 or morals, or for conduct which is contrary to the provisions of this chapter or any
875 condition of permit approval.
- 876 vii. Non-agricultural roadside vendors:
- 877 1. Non-agricultural vendors may be permitted to operate for a period not to
878 exceed 90 days, after which such vendors shall vacate the premises and
879 shall not be reestablished for a period of 45 days.
- 880 viii. Agricultural roadside vendors:
- 881 1. Agricultural vendors may be permitted to operate for a period not to
882 exceed 180 days, after which such vendors shall vacate the premises and
883 shall not be reestablished for a period of 45 days.
- 884 2. Agricultural vendors shall only offer seasonal horticultural, agricultural,
885 aquacultural or forest products, including but not limited to raw fruits,
886 vegetable, perennials, annuals bulbs, dried flowers, Christmas trees, and
887 similar products.

888 ~~*B. Mobile Food Vendors*~~

889 ~~a. Definition: Mobile food vendors (or "food trucks") are licensed motor vehicles or mobile~~
890 ~~food units which offer for sale and consumption food and beverages (excluding alcohol).~~

891 ~~b. Additional Standards:~~

892 ~~i. Permits required.~~

893 ~~1. The owner, or authorized agent thereof, of any property upon which a~~
894 ~~mobile food vendor(s) proposes to operate, shall secure a permit for the~~
895 ~~establishment of a mobile food vendor site. Applicants shall provide such~~
896 ~~information as is deemed necessary by the administrator to demonstrate~~
897 ~~compliance with this ordinance; such information shall include, but shall~~
898 ~~not be limited to, a listing of the mobile food vendors authorized to~~
899 ~~operate upon the subject property.~~

900 ~~2. Mobile food vendors shall secure all necessary permits required by the~~
901 ~~Transylvania County Health Department. Mobile food vendors must follow~~
902 ~~all applicable rules and requirements of the Transylvania County Health~~
903 ~~Department and any other relevant agencies of Transylvania County or~~
904 ~~the State of North Carolina.~~

905 ~~3. In the issuance of permits for mobile food vendor sites and mobile food~~
906 ~~vendors, the administrator shall have broad discretion to assign such~~
907 ~~conditions as may be necessary to protect the health, safety, and welfare of~~
908 ~~the public.~~

909 ~~ii. There shall be no limit to the number of mobile food vendors per parcel so long as~~
910 ~~all other separation and site requirements as set forth in this section are met.~~

911 ~~iii. Mobile food vendors shall be situated at least ten feet from all property lines and~~
912 ~~any road right of way, shall not encroach onto any street, sidewalk, or travel way,~~
913 ~~and shall not obstruct any loading zone or handicapped parking space. This~~
914 ~~requirement shall not apply to special events approved by the city for placement~~
915 ~~upon public streets.~~

916 ~~iv. Mobile food vendors shall be situated at least 20 feet from one another.~~

- v. ~~Separation between mobile food vendors and permanent structures.~~
1. ~~Mobile food vendors shall be situated at least 25 feet from any permanent structures.~~
 2. ~~The administrator may, upon recommendation of the fire marshal, approve the placement of mobile food vendors within 25 feet or less of a permanent structure. Such approval shall be based upon building type, building materials, existing fire breaks, and other pertinent information. Such reductions shall be reviewed on a case-by-case basis, at the discretion of the administrator.~~
 3. ~~There shall be no reduction in separation between mobile food vendors and permanent structures within the downtown fire district.~~
 4. ~~Mobile food vendors shall be situated at least 200 feet from any residential structure that is located within a general residential (GR) zoning district.~~
 5. ~~Mobile food vendors must be set back a minimum of ten feet in all directions from fire hydrants.~~
- vi. ~~The application for a mobile food vendor site shall include a site plan detailing all of the above separation and setbacks requirements. If seeking approval for multiple mobile food vendors, spaces for each desired vendor shall be denoted on the site plan with appropriate setbacks shown from each vendor space.~~
- vii. ~~Power.~~
1. ~~Outside of the Heart of Brevard district, generators may be used to power the vending unit. Within the Heart of Brevard only dedicated power supplies shall be used.~~
 2. ~~For dedicated power supplies the applicant must present documentation that power load supplied to the vehicle is sufficient to meet the vehicles needs while in operation.~~
- viii. ~~Vendors are subject to the requirements of the City of Brevard Noise Ordinance, North Carolina Health Code, and North Carolina Building Code.~~
- ix. ~~Hours of operation for mobile food vendors shall be limited to 7:00 a.m. to 10:00 p.m., except during an approved special event, when other operating hours may be established as part of the event.~~
- x. ~~Mobile food vendor operators or their designee must be present at all times during operation, except in the event of an emergency.~~
- xi. ~~Each food truck shall supply at least one waste receptacle which must be removed and emptied at the end of each day, city trash receptacles shall not be used for food truck waste.~~
- xii. ~~Mobile food vendor signage shall be limited to the following:~~
1. ~~Mobile food vendors shall be allowed signage only as described in Chapter 12 of this Ordinance.~~
 2. ~~Nothing in this Ordinance shall be construed to mean that mobile food vendor vehicles cannot be painted or decorated, or display menus affixed to the side(s) of the vendor vehicle.~~

C.B. *Vending pushcart:*

- a. Definition: Any self-contained, wheeled vehicle used for displaying, keeping or storing any article by a vendor or peddler (other than a motor vehicle, bicycle or trailer) which may be

962 moved without the assistance of a motor and does not require registration by the state
963 department of motor vehicles.

964 b. Additional Standards:

- 965 i. To relieve any potential for traffic hazard or pedestrian congestion, or any safety
966 hazard resulting therefrom, the number of vending carts with active permits
967 within the central business district at any given time shall not exceed four.
- 968 ii. No vendor selling from a pushcart on the sidewalk shall:
- 969 1. Leave any pushcart unattended.
 - 970 2. Store, park or leave any pushcart overnight on any street or sidewalk.
 - 971 3. Vend within 75 feet of any other vending cart.
 - 972 4. Set up, maintain or permit the use of any table, crate, carton, rack or other
973 device to increase the selling or display capacity of his pushcart or where
974 such items have not been described in his application.
 - 975 5. Allow any items relating to the operation of the vending business to be
976 placed anywhere other than in, on or under the pushcart.
 - 977 6. Maintain any pushcart upon any street or sidewalk which impedes,
978 endangers or interferes with the travel upon or use of the street or
979 sidewalk.
 - 980 7. Set up a pushcart so as to block or impede ingress and egress to any
981 structure.
- 982 iii. If it becomes necessary for the regulation of traffic or the safety or convenience of
983 pedestrians, any law officer of the city may direct vendors to move to another
984 location. No person may refuse to comply with a law enforcement officer when the
985 order is given under the authority of this section.
- 986 iv. Size of pushcarts:
- 987 1. No pushcart shall exceed 48 inches in width or 72 inches in length.
 - 988 2. No pushcart shall exceed 60 inches in height, nor shall any canopy be less
989 than 78 inches in height at its lowest point.
 - 990 3. The administrator shall have the right to require smaller dimensions
991 based upon such factors as, but not limited to, pedestrian and vehicular
992 safety and adequate sight distances.
- 993 v. The pushcart shall be set up so that a minimum of five feet of pedestrian passage is
994 maintained along the sidewalk at all times.
- 995 vi. Vendor permits will be invalid during special festivals and events within the
996 central business district. However, vendors may apply for permits from the
997 sponsoring organization or committee to operate within the area of the special
998 event.
- 999

1000 **19.3. Definitions.**

1001 *Eating and drinking establishment uses:* A retail business selling ready-to-eat food and/or beverages for
1002 on or off-premise consumption. Customers may be served from an ordering counter (i.e. cafeteria or limited
1003 service restaurant), at their tables (full-service restaurant), and at exclusively pedestrian-oriented facilities
1004 that serve from a walk-up ordering counter (snack and/or nonalcoholic bars). [This definition shall not](#)

[include any mobile food vendors or other operations serving food and/or beverages from a vehicle.](#) Eating and drinking establishments include, without limitation, the following uses: bars/nightclubs and restaurants.

[Mixed-use residential unit: A non-residential building type that consists of both a residential use and a non-residential use that is allowed in the applicable zoning district.](#)

Mobile food vendors (or food trucks): Licensed motor vehicles or mobile food units which offer for sale and consumption food and beverages (excluding alcohol).

[Mobile food vendor site: A permanent location for licensed mobile food vendors or food trucks to offer food and beverages for sale and consumption.](#)

Temporary vendors: Any vendor who sets up a temporary location to sell food, goods, or services. Vendors may be permitted individually or as part of a temporary event (Section 3.14.1). [Temporary vendors include, but are not limited to agricultural and non-agricultural roadside vendors and vending pushcarts.](#)

COMMENT OF CONSISTENCY WITH COMPREHENSIVE PLAN AND ANY OTHER OFFICIALLY ADOPTED APPLICABLE PLANS

NCGS 160D-604 requires that the Planning Board shall advise and comment on whether the proposed amendment is consistent with any comprehensive plan prior to consideration by the Governing Board. The Planning Board shall provide a written recommendation to the Governing Board that addresses plan consistency and other matters as deemed appropriate by the Planning Board, but a comment by the Planning Board that a proposed amendment is inconsistent with the Comprehensive Plan shall not preclude consideration or approval of the proposed amendment by the Governing Board.

The Brevard Planning Board forwards this recommendation to City Council with a finding that the proposed zoning text amendment is **consistent** with the following elements of the City's adopted plans and policies:

Building Brevard 2030 Comprehensive Land Use Plan Goals

GOAL 1: *Expand housing opportunities for all residents while preserving the character of Brevard and its neighborhoods.*

GOAL 2: *Encourage a development pattern that respects Brevard's sense of place and prioritizes livable communities.*

GOAL 7: *Support economic vitality and grow the tax base, cultivate local businesses, and attract sustainable industry.*

Building Brevard 2030 Comprehensive Land Use Plan Actions

LUH-4: *Identify areas across the City that are best positioned to accommodate future growth.*

LUH-9: *Evaluate and amend development ordinances to facilitate infill development on vacant and underdeveloped parcels, as well as revitalization of developed parcels.*

EDIR-3: *Encourage building and site upgrades Downtown and in other key commercial areas.*

STAFF REPORT

Planning Board, Tuesday, March 28, 2023

Title: Continuation of TXT-22-006 Steep Slopes

Speaker: Emily Brewer, AICP, Senior Planner

Prepared by: Emily Brewer, Senior Planner

Approved by: Aaron Bland, Asst Planning Director, Paul Ray, Planning Director

Background

The City of Brevard is endowed with a diverse and dynamic topography that defines its character as a mountain town nestled within the Blue Ridge Mountains. Development regulations for steep slopes are a critical tool in ensuring this identity is protected for future generations of Brevardians.

The steep slope ordinance has been discussed many times in the past few years, especially as infill residential development becomes more of a priority. Revisions have been presented to Planning Board and City Council most recently in the fall of 2022. Staff shared relatively minor changes to the review process and the requirements for Conditional Zoning Districts with steep slope areas. The text amendment was intended to clarify language around steep slopes in advance of broader changes in the coming months. Planning Board unanimously recommended approval of the text amendment to City Council. During their discussion on October 17th, multiple members of City Council expressed an interest in seeing a fully revised version of Section 6.4 – Steep Slope Area Requirements – instead of small revisions.

Discussion

On February 28, 2023, Staff facilitated a work session with Planning Board to establish priorities for steep slope development regulations and protections. During this discussion, Staff shared lessons learned from researching other municipalities, conducted a mapping exercise to assess where regulations would be necessary, and evaluated the viability of potential solutions. The presentation used to guide the work session is included as Attachment 4.

This discussion included Staff's findings from reviewing steep slope ordinances of many other Western North Carolina jurisdiction. A matrix of findings can be found in Attachment 5. Notable takeaways are as follows:

- All jurisdictions reviewed vary regulations at different slope percentages.
- Brevard's ordinance does not *regulate* development. It only allows administrators the *ability* to impose conditions on development from 15-24% and *prohibits* any development on greater slopes.

- No other jurisdiction (except Hendersonville) prohibit development on steep slopes. However, many of them impose regulations regarding building height, density, amount of grading, etc. that increase in severity as the slope increases. None of these regulations are currently in Brevard's steep slope ordinance.
- Heavier development regulations typically do not start until a parcel reaches 35% in slope.
- Many jurisdictions that were reviewed use an elevation trigger for regulations to apply.
- All other jurisdictions (except Boone) use the same slope formula (detailed below).
- Many other cities require geotechnical engineering be completed to ensure development plans are safe and do not contribute to further erosion and sedimentation.

With Planning Board's guidance and input, Staff has prepared a revised amendment to the steep slope ordinance and other related sections. The details of these changes and the rationales for including them are outlined below:

1. Scale of Regulations

Currently, Section 6.4 of the UDO defines "steep slopes" as areas with a slope of "15 percent or greater." However, there are no meaningful regulations stated for parcels with an average slope between 15-24%. The only stipulation is that the administrators have the ability to impose conditions to ensure safe development.

Furthermore, the current ordinance states that areas with "an average slope of 25 percent or greater" are deemed "protection areas for which no development shall be permitted." However, under NC law, property owners should be granted reasonable use of their land and a strict prohibition would not be permissible. Because of this, there is a caveat in our ordinance that:

*"Only one principal structure shall be permitted within **preexisting lots containing steep slope areas** unless all proposed principal structures can be constructed on portions of the lot not considered to be a steep slope area and still conform to all other requirements of this ordinance."*

This means that even if a lot has a slope of 25% or greater, if it was established before April 3, 2006 (the date of the UDO), the parcel would be exempt from the steep slope ordinance regulations, except that they may only have one principal structure. Staff believes that the majority of the parcels in the City's planning jurisdiction were created (via subdivision, recombination, etc.) before 2006, meaning most of our jurisdiction would be exempt from this section with that one exception. This is contrary to the stated purpose and objectives of the chapter to protect our natural resources and minimize the impact to sensitive areas (Sections 6.2 and 6.3).

Staff discussed these issues at length with Planning Board. They concurred with Staff's recommendation to remove the prohibition of development and instead levying

development regulations and vegetation preservation requirements that scale up as the slope increases.

2. Definition and Applicability

Staff and Planning Board extensively discussed the applicability of regulations, referring to the slope ordinances of other municipalities and examining existing parcels in the jurisdiction. The group came to consensus that protections should begin at 25% (equating to a 4H:1V ratio or 14 degrees) with heavier regulations at 35% (roughly 20 degrees) and above.

At the work session, Planning Board also recommended that steep slope regulations only be applicable to properties above a certain elevation, similar to those of other Western North Carolina municipalities. With this, properties located below the elevation can be entirely exempt from steep slope regulations, while those above it may be subject. Staff led Planning Board through a mapping exercise to visualize the elevation of the jurisdiction. Ultimately, the Board recommended 2,250 feet above sea level as this trigger elevation. This protects the most visible “viewshed” slopes while exempting lower-lying sloped areas in the already developed parts of town that would otherwise be restricted.

The revised section now stipulates that all development projects and subdivisions on parcels at or above 2,250 feet in elevation must provide a slope calculation. Based on the calculated slope of the parcel, it may be designated as a “moderately steep slope area” (25-34%) with moderate regulations or a “steep slope area” (35%+) with more regulations and environmental protections.

3. Slope Determination

The slope calculation is vague and over-simplified using a linear assessment or a simple average. The existing language can be applied with relative ease in areas of uniform, gentle elevation changes, but not with Brevard’s diverse and dynamic topography. Many, if not most, parcels have significant elevation changes within the property lines.

The proposed amendments provide a specific formula which can be applied to any property as to calculate the average existing grade. The Board proposed using the following contour interval formula, which is very commonly used even within Western North Carolina (see Attachment 4). The formulas is as follows:

Slope (**S%**) is equal to the total length (**L**) of contour lines within a given parcel, multiplied by the contour interval (**I**) of said parcel, then multiplied by .0023, divided by the area (**A**) of the parcel.

Or,

$$S = ((.0023 \times (L) \times (I)) / A$$

.0023 is the product of two constants, one of which converts feet into acres and one of which converts a decimal fraction into a percentage, the value of .0023 is the percentage of one square foot of one acre.

Attachment 6 includes an example on a three-acre tract with 2-foot contour intervals.

Property owners would also have the option to provide a slope analysis conducted and sealed by a professional surveyor, engineer, or landscape architect.

Furthermore, the ordinance does not specify if it is the average of the whole parcel or just the area to be built upon. Staff discussed the area of measurement with Planning Board at the work session. The pros and cons are outlined below:

	Whole Parcel	Area of Disturbance
Principle	Doesn't always protect what we want to protect (especially without elevation trigger)	Allows "reasonable use" of a property owner's land
Application	Doesn't account for less steep portions of the lot that are not sensitive for development	Allows development on less steep portions of the lot
Process	Could be automatically calculated and property owners can look it up (see Asheville/Buncombe County)	Would need to be an additional step in the permitting process where staff determines the slope for them with GIS
Grading Extent	Could regulate (very common)	Doesn't allow for regulations that limit grading extent because not disturbing the whole property
Vegetation Preservation	Could regulate (very common)	Doesn't allow for broad tree preservation because not disturbing the whole property (would need to be incentives and/or buffer regulations)

Following discussion, Planning Board concurred with Staff that using the whole parcel as the area of measurement would create an easier permitting process (e.g., slope calculations could be pre-calculated and available for lookup) and would allow for greater preservation of the natural landscape.

The text amendment allows property owners to remove areas from their slope calculation if it is placed in a permanent conservation easement or otherwise permanently protected in a natural state with a legal prohibition on vegetation removal and land disturbance. This provides an incentive to permanently preserve the steepest and most sensitive portions of a lot, while still allowing reasonable development of the remainder of a property owner's land.

4. Geotechnical Analysis

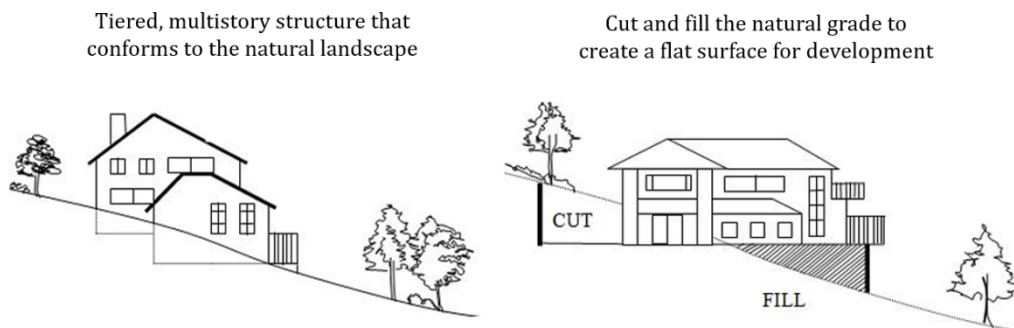
The planners administering the code are not experts in assessing the safety of developing on steep slopes. Staff would prefer to rely on professional engineers to determine the feasibility of projects. Other municipalities have addressed this with geotechnical analysis requirements (see Attachment 5). These reports typically include subsurface/soil compositions, stability assessments, and recommendations for safe construction, grading, soil reinforcement, etc. Planning Board concurred and decided that geotechnical engineering should be required for projects in “steep slope areas” (35% or greater), which is in line with the regulations in Asheville, Black Mountain, Buncombe County, and Sylva.

5. Retaining Walls

Planning Board expressed a strong desire to limit the height of retaining walls in steep slope areas in an effort to reduce the visual bulk of a project and protect the natural slope to the greatest extent possible. Staff determined that this does not need to be limited to steep slope areas, so additional regulations have been incorporated into Section 4.9, now labeled “Fences and Walls.” The maximum height of the retaining wall is proposed as 5 feet, unless required to be higher for engineering reasons.

6. Development Type and Design

At the work session, Staff presented examples of two types of development: step-back or tiered development and cut-and-fill development.



Both Staff and Planning Board wish to incentivize development to occur using the former. Additionally, the development should blend in with the natural surroundings and conform to the natural topography.

Under the *North Carolina Residential Code for One- and Two-Family Dwellings*, municipalities cannot impose architectural standards for single-family residences and duplexes. Instead, Staff and Planning Board proposed regulations for certain features that are allowed under NC law and development incentives for other architectural standards.

The regulations that are included to create appropriate development on sloped parcels, include:

- Requiring development and subdivision plans for moderately steep slope and steep slope areas cluster development on portions of the lot not considered to be steep, minimize land disturbance, and avoid rigid contouring;

- Limiting the amount of the parcel that can be graded for moderately steep slope and steep slope areas;
- Reducing the maximum allowable density of development in steep slope areas;
- Restricting the maximum height and reducing visual bulk of structures in steep slope areas [***Board input is needed on which method should be used, see Attachment 3***]; and
- Preserving all trees and vegetation except in the area approved for grading in steep slope areas.

For two of the regulations – maximum grading extent and maximum allowable density – the Board discussed offering development incentives for property owners to “win back” the reductions. These credits include: exterior colors that blend with natural surroundings, permanently protecting the steepest portions of the lot, and screening the buildings to reduce the visual impact.

7. Steep Slopes in Conditional Zoning Districts

In the current ordinance, City Council has the authority to make minimal allowances to facilitate development on extremely steep slopes as part of a Conditional Zoning District. This section is overly prescriptive about the maximum allowable density permissible. The revisions remove this provision and enables Council to include any density or development design conditions necessary to uphold the intent of the steep slope ordinance while still allowing development on a case-by-case basis.

8. Other Minor Revisions

Other revisions were made throughout the UDO to better align with these changes, such as moving the regulations about infrastructure in steep slope areas to new Section 6.4 and removing reference to 15% slope in other sections.

Policy Analysis

The *Building Brevard 2030* Comprehensive Land Use Plan calls for refinements to the zoning standards to facilitate infill development that is safe and does not compromise the natural character of these areas.

Goals

GOAL 2: Encourage a development pattern that respects Brevard’s sense of place and prioritizes livable communities.

GOAL 5: Celebrate Brevard’s natural resources through conservation of environmentally sensitive areas, improving access to recreation, and restoration of native ecosystems.

Recommendations

LUH-4: Identify areas across the City that are best positioned to accommodate future growth.

LUH-9: Evaluate and amend development ordinances to facilitate infill development on vacant and underdeveloped parcels, as well as revitalization of developed parcels.

LUH-24: Refine zoning districts and slope regulations in constrained areas
PNRC-10: Preserve steep slopes and natural areas adjacent to Pisgah Forest.

Recommendation

The Board's role is to make a recommendation to City Council. The Board has the following options in this role:

1. Recommend adoption of the amendment as written;
2. Recommend adoption of the amendment as revised by the Board; or
3. Recommend rejection of the amendment.
4. Table the amendment for further consideration.

In accordance with North Carolina General Statutes, the Planning Board must also submit a statement analyzing the consistency and reasonableness of this proposal with regards to existing policies or plans of the City of Brevard. A Statement of Consistency and Reasonableness is included for the Board's review (Attachment 7).

Attachments:

1. Proposed Text Amendment – Strikethrough Version
2. Proposed Text Amendment – Clean Version
3. Proposed Building Height Options
4. Staff's Presentation for Planning Board Work Session – February 28, 2023
5. Matrix of Western North Carolina Steep Slope Ordinances
6. Slope Calculation Demonstration
7. Consistency Statement

4.9. Fences and walls.

- A. All fences and walls shall be constructed so that the best face faces outward from the parcel upon which it is constructed and towards adjacent properties. The "best face" shall generally mean the side opposite to framing members.
- B. Fences and walls shall not be placed within public utility easements or public right-of-way without first securing an encroachment agreement from the City of Brevard, the North Carolina Department of Transportation, or other appropriate entity.
- C. Fence or wall height shall be measured from the side of the fence or wall that is exterior to the property as the vertical distance between the lowest adjacent ground level, natural or filled, and the top of the fence material. Fence heights are restricted as follows:
1. In industrial districts, and public safety and other critical facilities. Fences or walls shall be no greater than six feet in height before the front building line and no greater than eight feet in height in the side or rear yard.
 2. All other districts and uses. Fences or walls shall be no greater than eight feet in height behind the front building line or four feet in height before the front building line.
 3. No closed fence or wall shall be greater than two-and-a-half feet in height when placed within the sight triangle of any intersection as specified in Section 4.5 of this ordinance. Open fences are exempt from this provision.
- D. Fence and wall materials shall conform to the following requirements:
1. *Residential districts:*
 - (a) All fences and walls must be of brick, stone, stucco, wrought iron, wood, or other materials similar in appearance and durability, except that chain link or woven wire may be used in the side and rear yard behind the front building line.
 - (b) All other wire fences, including barbed wire or concertina wire, are prohibited.
 - (c) Nothing in this chapter shall prevent the administrator from approving architecturally variant uses of material to allow creative fence design, such as the contemporary look of heavy-gauged welded wire panels framed in timber.
 - (d) The use of plastic plumbing pipe is a prohibited fence material.
 2. *Commercial districts:*
 - (a) All fences and walls must be of brick, stone, stucco, wrought iron, wood, or other materials similar in appearance and durability.
 - (b) Chain link wire fences may be used as secure enclosures internal to the property or site subject to the following requirements:
 - (1) Chain link fences shall not be visible from a public right-of-way,
 - (2) Chain link fences shall not serve as a perimeter fence or property line fence unless buffered by a type A buffer yard on all sides, and then only in the side or rear yard behind the front building line.
 - (c) All other wire fences, including barbed wire or concertina wire, are prohibited.
 - (d) All walls and fences shall be materially similar to other walls and fences in the same block or general vicinity.
 3. *Industrial districts, public safety facilities, and other critical facilities:*
 - (a) ~~Materials:~~

~~(1)~~ All fences and walls must be of brick, stone, stucco, wrought iron, wood, or other materials similar in appearance and durability, and shall be materially similar to other walls and fences on the same block or general vicinity.

~~(b)~~ ~~(2)~~ Vinyl coated, chain link fencing may be approved by the administrator as perimeter fencing with additional filtering through openings using opaque or semi opaque slats or screening or by installing a type A landscaping buffer between incompatible uses, between different zoning districts or where visible from a public street.

4. *Barbed wire*: Barbed wire may be permitted within bona-fide agricultural operations within any zoning district.

E. Retaining walls shall also conform to the following requirements:

1. Retaining walls should minimize the impacts of cut and fill on a site.

2. The height of any retaining wall should not exceed five feet unless required to be higher for engineering reasons.

(a) An increase in retaining wall height may be allowed if the proposed design minimizes the cut and fill impacts and enhances the existing landscape.

3. In areas where cuts are steeper, a stepped or terraced wall should be used. Large, unbroken retaining walls in a uniform plane should be avoided.

6.1. Statutory Authority and Legislative Findings-of-Fact.

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Articles 7, 11, 9, and 13 of Chapter 160D; and Article 8 of Chapter 160A of the North Carolina General Statutes, delegated to local governmental the responsibility units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

The City Council of the City of Brevard, North Carolina, makes the following legislative findings-of-fact.

- A. The flood prone areas within the City of Brevard and its extraterritorial jurisdiction are subject to periodic inundation which results in loss of life, property, health hazards, safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- B. The development activities listed herein contribute, individually and cumulatively, to the flood losses addressed above: (1) obstructions in floodplains causing increases in flood heights and velocities; (2) the occupancy in flood prone areas of uses vulnerable to floods or other hazards; (3) the loss of wetlands, streamside riparian areas, and other lands that slow, absorb, retain, and cleanse storm and flood waters; and (4) the expansion of impervious surfaces both within and outside of flood prone areas that cause increases in the velocity and rate of the discharge of stormwater into bodies of water.
- C. The discharge of urban pollutants and sedimentation into bodies of water results in health and safety hazards and the impairment of environmentally and economically significant aquatic wildlife habitat, adversely affecting the public health, safety, and general welfare.
- D. Development activities cause sedimentation pollution through untreated and uncontrolled stormwater from impervious areas, improper land disturbance, and the loss of wetlands, streamside riparian areas, and other lands that absorb and cleanse storm and flood waters.

E. Brevard is in a unique geographical location where mountains, valleys and hills constitute significant natural topographical features. The mountains and hillsides of Brevard are visible from many locations within the city, adding to the quality of life for residents and improving tourism opportunities. These areas are sensitive to development and measures shall be taken to preserve viewshed, maintain slope stability, control erosion and stormwater runoff.

F. The steeply sloping areas within the City of Brevard and its extraterritorial jurisdiction are particularly susceptible to erosion and landslides, and pose particular difficulties in the construction and maintenance of public infrastructure and the provision of public services. Development activities in such areas are likely to result in the loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

F.G. On June 20, 2005, the City of Brevard, in conjunction with Transylvania County and the City of Rosman, adopted the Multi-Jurisdictional Hazard Mitigation Plan as an additional resource to substantially and permanently reduce the planning area's vulnerability to natural hazards. The plan is intended to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the natural environment. This is to be achieved by increasing public awareness, documenting resources for risk reduction and loss prevention, and identifying activities to guide the planning area towards the development of a safer, more sustainable community.

6.2 Statement of Purpose

A. It is the purpose of this chapter to protect and promote the public health, safety and general welfare by preventing the loss of life and/or public and private economic loss due to landslides, floods, erosion and sedimentation pollution. It is further the purpose of this chapter to protect our existing environmental resources, including steep slopes, floodplains, stream corridors, wetlands, watershed and groundwater recharge areas, soils, forest stands, specimen trees, and other significant vegetation and wildlife, which are of economic value to the city and its citizens and make Brevard a desirable place to live and visit.

In furtherance of this purpose, the regulations contained herein are designed to accomplish the following:

1. Restrict or prohibit uses that are or may be dangerous to health, safety, and property or that may result in damaging increases in erosion, flood heights or velocities;
2. Require that uses and infrastructure vulnerable to the movement of earth or flooding be protected against such damage at the time of initial construction;
3. Control the alteration of steep slopes, natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodgates;
4. Control filling, grading, dredging, and all other development that may increase erosion or flood damage;
5. Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands; and
6. Require that stormwaters that may damage property, increase flood hazards, or pollute surface waters be adequately controlled and treated.

6.3. Objectives.

The objectives of this chapter are as follows:

1. To protect human life and health;

2. To minimize the expenditure of public money for costly stormwater or flood control and stormwater management projects;
3. To minimize the need for rescue and relief efforts associated with flooding [and landslides](#) and generally undertaken at the expense of the general public;
4. To minimize prolonged business losses and interruptions;
5. To minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located on steep slopes or in flood prone areas;
6. To help maintain a stable tax base by providing for the sound use and development of steep slope areas, flood prone areas, and the control of stormwater runoff;
7. To minimize the impairment of, or damage to, sensitive natural areas and bodies of water; and
8. [To ensure that potential buyers are aware that property is in a special flood hazard area or area of known landslide potential.](#)
- ~~8.~~ [9. Protect the viewshed and natural beauty of natural slopes and floodplains.](#)

6.4. Steep slope area requirements.

In accordance with G.S. 160D-703(d), the provisions contained in this section shall apply to all areas within the planning jurisdiction of the City of Brevard that are classified as ["moderately steep slope areas"](#) and "steep slope areas". These provisions do not limit or negate the effect of other provisions of this ordinance which may apply to steep slope areas.

A. Applicability: ~~Steep slope areas are defined as those areas with a slope of 15 percent or greater.~~

1. This section shall apply to any subdivision plat, land-disturbing activity, building permit, or any other development proposal on a parcel located at or above 2,250 feet in elevation above mean sea level and with an average slope of 25% or greater.

i. "Moderately steep slope" areas are defined as those areas with a slope of 25% to 34%.

ii. "Steep slope" areas are defined as those areas with a slope of 35% or greater.

iii. A parcel is considered at or above the elevation if any area within the parcel boundaries is at or above the stated elevation.

2. The provisions in this section are intended to encourage a sensitive form of development and to allow for a reasonable use that complements the natural and visual character of the community.

B. Determining slope: Slope shall be determined in accordance with the methods and procedures contained herein.

1. Prior to commencing any development or land-disturbing activity and prior to issuing any permits and/or other approvals, the calculated slope for the parcel(s) shall be approved by the Planning Department.

i. Parcels where no portion of the lot is located at or above 2,250 feet in elevation above mean sea level are exempt from this requirement.

ii. Incidental improvements and additions to existing structures, accessory structures less than 1,000 square feet in ground floor area, and interior renovations are exempt from this requirement.

2. Calculations and supporting documentation shall be submitted to the Planning Department for review prior to or in conjunction with the applicable submittals. The administrator

shall: (a) request additional information; (b) request revisions to the slope calculation submittal; or (c) issue written concurrence with the determination of slope, as submitted.

i. Each slope calculation and supporting documentation submitted to the Planning Department for review shall include a scaled map, accurately showing the topography for the entire land tract and the parcel boundaries.

ii. In cases where the applicant or property owner does not agree with the determination made by the administrator, the alternative slope analysis shall be heard and decided on by the Board of Adjustment, following a notice of appeal filed with the City Clerk.

3. Slope shall be determined through use of one of the following methods:

i. The approved contour interval formula:

Slope (S%) is equal to the total length (L) of contour lines within a given parcel, multiplied by the contour interval (I) of said parcel, then multiplied by .0023, divided by the area (A) of the parcel.

Or,

$$S\% = \frac{(L \times I)}{A} \times .0023$$

_____ A

The calculation shall use the smallest contour interval for which maps are available or at a minimum of five-foot intervals.

.0023 is the product of two constants, one of which converts feet into acres and one of which converts a decimal fraction into a percentage, the value of .0023 is the percentage of one square foot of one acre.

ii. Analysis conducted and sealed by a professional surveyor, engineer, or landscape architect using recognized, industry-accepted methods.

1. The administrator may require slope calculations to be sealed by a professional surveyor, engineer, or landscape architect for projects with over an acre of disturbed area.

~~1. Slope shall be determined by measuring the change in height for every 100 feet of horizontal distance. For example, a change in elevation of 15 feet over a horizontal distance of 100 feet equals a 15 percent slope. Alternatively, slope may be determined by means of commonly accepted slope Geographic Information System modeling software using commonly accepted topographical baseline data produced by the United States Government, the State of North Carolina, Transylvania County, or the City of Brevard.~~

4. ~~General standards:~~ Slope shall be rounded to the nearest whole number and noted in increments of less than 15 percent, 15—24 percent, or 25 percent or greater on all development plans required by this ordinance.

5. Areas placed in a permanent conservation easement, dedicated to the public for open space, protected as open space by restrictive covenants, or otherwise permanently protected in a natural state with prohibition on vegetation removal and land-disturbing activities may be removed from the calculation of parcel slope.

i. The applicant shall provide also provide the legal documentation for permanent protection and a closed perimeter line delineating the revised boundaries for calculating slope.

ii. Nothing shall limit the ability of moderately steep slope areas, steep slope areas, conservation easements, or other means of permanent land protections to be included in the total parcel area for the means of calculating density.

220 C. *Geotechnical analysis:*

- 221 1. Development in steep slope areas shall be required to undergo geotechnical analysis by a
222 registered professional engineer to determine the stability of the underlying geology and
223 soils to support the proposed project. The geotechnical analysis report shall be required to
224 be submitted prior to the issuance of a zoning permit.
- 225 2. If a geotechnical analysis has been performed for subdivision approval that includes
226 building pad analysis of the individual lots, it is unnecessary to submit a new analysis for
227 each lot, provided the location of structures on each lot does not change by more than 20
228 feet in any one direction.

229 D. ~~C. *Pre-existing lots:*~~ *Development projects with moderately steep slope areas and/or steep slope*
230 *areas:*

- 231 1. Development and subdivision plans shall be designed to minimize disturbance to the
232 natural landform and should not destroy the visual quality and community character.
- 233 i. To the extent possible given topographic and other physical constraints, land
234 disturbance should be confined to portions of the lot not considered to be steep
235 slope areas.
- 236 ii. Buildings, parking, and other improvements should be clustered on less steep and
237 sensitive areas of the site to reduce the amount of grading.
- 238 iii. Projects are encouraged to demonstrate terrain-adaptive design and construction
239 techniques.
- 240 2. Proposed land-disturbing activity shall meet all applicable local and State regulations
241 relating to soil erosion and sedimentation control.
- 242 3. Land disturbance shall be limited to the minimum required for building foundations,
243 driveways, stormwater management measures and immediate areas surrounding these
244 elements as required by this ordinance.
- 245 i. With the exception of approved stockpiling or restoration efforts, substantial earth
246 moving beyond that required for the installation or construction of approved
247 buildings, structures, driveways, or stormwater management measures shall not
248 be permitted.
- 249 4. When grading is necessary, it should be blended with the natural land form as much as
250 possible. Rigid contouring should be avoided, and contours should be rounded to appear
251 undulating and natural.
- 252 5. The approving authority shall have the right to impose such conditions as are necessary to
253 ~~ensure safe construction~~ protect public health, safety, and welfare for projects in ~~within the~~
254 steep slope ~~or very steep slope~~ areas as authorized under the provisions of this section of
255 ~~pre-existing lots when,~~ because the minimum standards set forth in this ordinance are
256 ~~insufficient given the of~~ exceptional and unique conditions of topography, location, shape,
257 size, drainage or other physical features of the site, or because of the special nature and
258 character of surrounding development, ~~the minimum standards set forth within this~~
259 ~~ordinance would not reasonably protect the public health, safety, or welfare.~~
- 260 i. Such conditions shall be reasonable and shall be limited to the minimum additional
261 improvements necessary to protect the public health, safety or welfare. Such
262 conditions may, without limitation, pertain to the following:
- 263 1. The retention and planting of vegetation;
- 264 2. Sedimentation and erosion controls;
- 265 3. Cut and fill slope design and stabilization;

- 266 4. The degree of land disturbance; and
- 267 5. The location, form and design of proposed structures and driveways so as
- 268 to minimize land disturbance and ensure structural integrity; and;
- 269 6. ~~f. The location, form and design of subdivision lots, streets, and~~
- 270 ~~public utilities, so as to minimize land disturbance and ensure structural~~
- 271 ~~integrity.~~
- 272 ii. 2. The approving authority administrator may reduce the required setbacks by
- 273 up to 20 percent of the required distance in accordance with Section 2.3 in order to
- 274 facilitate compliance with this section.
- 275 3. ~~Only one principal structure shall be permitted within preexisting lots containing steep slope~~
- 276 ~~areas unless all proposed principal structures can be constructed on portions of the lot not~~
- 277 ~~considered to be a steep slope area and still conform to all other requirements of this~~
- 278 ~~ordinance.~~
- 279 B.E. ~~Development projects approved subsequent to the enactment of this ordinance:~~ Conditional zoning
- 280 ~~districts with steep slope areas:~~
- 281 1. It is strongly encouraged that any proposed development project ~~subdivision~~ containing
- 282 extensive steep slope areas be considered in accordance with the procedures for
- 283 conditional zoning districts, which process allows for creative designs that may enhance
- 284 development potential while achieving the steep slope protection requirements of this
- 285 section.
- 286 2. ~~The approving authority shall have the right to impose such conditions as are necessary to~~
- 287 ~~ensure safe construction within the steep slope area of pre-existing lots when, because of~~
- 288 ~~exceptional and unique conditions of topography, location, shape, size, drainage or other~~
- 289 ~~physical features of the site, or because of the special nature and character of surrounding~~
- 290 ~~development, the minimum standards set forth within this ordinance would not reasonably~~
- 291 ~~protect the public health, safety, or welfare.~~
- 292 3. ~~Such conditions shall be reasonable and shall be limited to the minimum additional~~
- 293 ~~improvements necessary to protect the public health, safety or welfare. Such conditions may,~~
- 294 ~~without limitation, pertain to the following:~~
- 295 a. ~~The retention and planting of vegetation;~~
- 296 b. ~~Sedimentation and erosion controls;~~
- 297 c. ~~Cut and fill slope design and stabilization;~~
- 298 d. ~~The degree of land disturbance;~~
- 299 e. ~~The location, form and design of proposed structures and driveways so as to minimize~~
- 300 ~~land disturbance and ensure structural integrity; and~~
- 301 ~~f. The location, form and design of subdivision lots, streets, and public utilities, so as to~~
- 302 ~~minimize land disturbance and ensure structural integrity.~~
- 303 4. ~~Steep slope areas with an average slope of 25 percent or greater shall be delineated upon all~~
- 304 ~~final development plans and plats and shall be noted as protection areas for which no~~
- 305 ~~development shall be permitted. These areas shall be off-limits to all development or land~~
- 306 ~~disturbances of any kind whatsoever and shall be maintained in a naturally vegetated state,~~
- 307 ~~except that forest management in accordance with the provisions set forth in this ordinance~~
- 308 ~~may be permitted.~~
- 309 5. ~~The applicant may transfer development potential from protected steep slope areas~~
- 310 ~~described in section 6.4(D(4)) to other areas of the project not set aside from development.~~
- 311 ~~Such transferred development potential shall be calculated at a ratio of one dwelling unit for~~
- 312 ~~every three acres.~~

~~6.2. — City council may make such minimal allowances as are necessary in order to~~ allow development on steep slope areass 25 percent or greater when Section 6.4(D(4)) would ~~render the property unusable due to the absence of meaningful developable area with slopes less than 25 percent. In such situations council may,~~ by means of a conditional zoning district, ~~permit development on slopes 25 percent or greater at a maximum average density of one dwelling unit for every three acres.~~ Council shall may require the clustering of structures and impose any other necessary condition upon the design of the development in order to minimize impacts and uphold the intent of this section.

~~2. —~~

F. Grading extent:

1. The maximum extent of grading on a property with moderately steep or steep slope areas shall be reduced to support the goals and objectives of this section. This shall be governed by the following table:

<u>Average Existing Slope</u>	<u>Maximum Percent of Site Graded</u>
<u>25% - 29%</u>	<u>70%</u>
<u>30% - 34%</u>	<u>60%</u>
<u>35% - 39%</u>	<u>50%</u>
<u>40% - 44%</u>	<u>35%</u>
<u>45% or greater</u>	<u>20%</u>

2. Additional grading may be awarded to projects on steep slope areas if any of the following conditions are met. The credits may accumulate to equal the total reduction outlined herein.

<u>Credit</u>	<u>Conditions</u>
<u>10%</u>	<u>Buildings and parking areas are properly screened by vegetation to minimize the visual impact from key viewing areas, which include downtown, public parkland and other public recreational areas, and major streets and highways</u>
<u>10%</u>	<u>The steepest portions and/or most visible portions of the lot are placed in a permanent conservation easement, dedicated to the public for open space, protected as open space by restrictive covenants, or otherwise permanently protected in a natural state with prohibition on vegetation removal and land-disturbing activities</u>
<u>10%</u>	<u>Exterior colors for new buildings and structures, including roofs, are coordinated with the predominate colors of the surrounding landscape to minimize contrast between the structure and the natural environment</u>

3. Additional grading may also be permitted as part of a conditional zoning district.

G. Density:

1. Densities of residential development shall be reduced in steep slope areas to support the goals and objectives of this section. This shall be governed by the following table:

<u>Average Existing Slope</u>	<u>Maximum Residential Density</u>
<u>35% - 39%</u>	<u>20% reduction of underlying zoning district</u>
<u>40% - 44%</u>	<u>50% reduction of underlying zoning district</u>
<u>45% or greater</u>	<u>70% reduction of underlying zoning district</u>

2. Additional density may be awarded to projects on steep slope areas if any of the following conditions are met. The credits may accumulate to equal the total reduction outlined herein.

<u>Credit</u>	<u>Conditions</u>
---------------	-------------------

<u>10%</u>	<u>Grading is limited to 10% of more under the maximum allowed under this section</u>
<u>10%</u>	<u>Buildings and parking areas are properly screened by vegetation to minimize the visual impact from key viewing areas, which include downtown, public parkland and other public recreational areas, and major streets and highways</u>
<u>10%</u>	<u>The steepest portions and/or most visible portions of the lot are placed in a permanent conservation easement, dedicated to the public for open space, protected as open space by restrictive covenants, or otherwise permanently protected in a natural state with prohibition on vegetation removal and land-disturbing activities</u>
<u>10%</u>	<u>Exterior colors for new buildings and structures, including roofs, are coordinated with the predominate colors of the surrounding landscape to minimize contrast between the structure and the natural environment</u>

- i. The maximum residential density shall not exceed the maximum residential density permitted in the underlying zoning district as outlined in Section 2.3, unless such provisions are specified in a conditional zoning district.

H. Building height:

1. SEE ATTACHMENT 3

2. Accessory structures shall not exceed 15 feet in height on any side.
3. Applicants shall provide architectural plans and building elevations to demonstrate compliance with this section.

I. Tree and vegetation preservation:

1. Landscaping / vegetation preservation plans, in accordance with Section 17.9, shall be required for all development projects on steep slopes to ensure compliance with this section.
2. Plant materials should be used that blend with the mountainside of hillside. Landscape schemes that are rough, natural, and/or subdued in character are encouraged.
3. All trees and other specified vegetation shall be preserved except in the area approved for grading or within 20 feet of the building footprints.
- i. Non-native or invasive species may be removed.
4. In the event a property owner desires to remove trees and other protected vegetation required to be preserved in this section, they may submit an alternative landscape plan for consideration by the Brevard Planning Board.

i. This alternative landscape plan must contain:

1. a tree survey of the property showing which trees and other protected vegetation will be removed and which will remain;
2. the location of any structures, driveways, and other impervious surfaces; and
3. an explanation of the reason(s) for removal of required trees and other protected vegetation, including a statement of how the removal of the required trees and other protected vegetation supports the purposes of this section or how such removal can be mitigated consistent with the purposes of this section.

- ii. The Planning Board may approve, approve with conditions, or deny the alternative landscape plan. If conditions are established, they shall be enforceable in accordance with the provisions of the development permit.

369 G.J. Infrastructure:

- 370 1. Infrastructure shall be installed in steep slope areas as defined in chapter 6 in accordance
371 with the provisions of this chapter.
- 372 2. Roads and driveways created on parcels with steep slopes should follow the natural
373 terrain, unless necessary to accomplish the purpose.
- 374 ~~2.3.~~ The approving authority shall have the authority to modify infrastructure requirements
375 and impose such conditions as are necessary to minimize the disturbance caused by the
376 installation of infrastructure in steep slope areas.
- 377 i. Modifications and conditions shall be intended to minimize disturbance and
378 increase the safety and stability of infrastructure, and shall not be granted or
379 imposed to reduce cost to the developer.
- 380 ii. Modifications and conditions may relate but shall not be limited to pavement
381 width, sidewalk width, curb and gutter design and width, and shoulder design. The
382 maximum road grade requirement shall not be modified.

383 ~~3.4.~~ Culs-de-sac:

- 384 i. The required turnaround on a dead-end street in a steep slope area shall have a
385 roadway diameter of not less than 50 feet.
- 386 ii. If the street length does not exceed 300 feet and if construction difficulties will not
387 permit a turnaround, the use of a "Y" or "T" or other turning space of a design such
388 as will allow a vehicle with a wheel base of at least 20 feet to complete a turning
389 movement with a maximum of one backing movement may be permitted.

390 ~~4.5.~~ Grading:

- 391 i. Grading shall not be required for the full right-of-way in steep slope area if the
392 administrator determines that full grading will prevent convenient access to
393 adjoining property or will destroy the natural beauty of the site by excessive cut
394 and fill.
- 395 ii. Shoulder fill slopes shall not be steeper than ~~2:1~~40%.

396 K. Subdivision of land:

- 397 1. Newly created parcels of land shall have adequate developable area outside of steep slope
398 areas, except parcels created and restricted for the purpose of recreation, conservation or
399 open space protection and land processes which are exempt from the subdivision
400 ordinance.

401

402

403 **6.5. - Sedimentation and erosion prevention.**

404 In order to prevent soil erosion and sedimentation pollution of streams, springs, flat water bodies,
405 drainage networks, or other surface waters, the property owner shall at all times comply with all
406 requirements of the North Carolina Sedimentation Pollution Control Act of 1973, as amended.

- 407 A. The following conditions are considered hazardous, a nuisance, and a threat to property and the
408 environment; creating such conditions and/or allowing them to continue shall constitute a violation
409 of this ordinance.

- 410 1. The discharge or deposition of sedimentation pollution from one parcel of land onto another
411 parcel of land of the same or different ownership.

-
- 412 2. The discharge or deposition of sedimentation pollution onto a street or public right-of-way,
413 including drainage ditches and swales within a public right-of-way.
- 414 3. The discharge or deposition of sedimentation pollution into any surface water, including
415 drainage ditches and swales.
- 416 4. The discharge or deposition of sedimentation pollution into wetlands, surface water
417 protection areas, or other protected areas.
- 418 5. The uncontrolled or uncontained movement of sedimentation pollution within any parcel of
419 land.
- 420 6. The presence of destabilized slopes that may collapse and pose a hazard to life or property.
- 421 7. Any other condition that may pose a nuisance or hazard to life, property, or the environment
422 by means of the movement, collapse, discharge, or deposition of earth.
- 423 B. *Requirements of the property owner and developer.* The property owner or developer or both, as the
424 case may be, are responsible for ensuring that development complies with the following
425 requirements of this ordinance:
- 426 1. No land disturbance activity of any kind shall take place without a site plan approval
427 authorizing development of the site. The tilling of earth for the cultivation of crops and other
428 incidental land disturbances as determined by the administrator shall be exempt from this
429 requirement.
- 430 2. Development shall at all times comply with the provisions of this Chapter and with the
431 provisions of the North Carolina Sedimentation Pollution Control Act.
- 432 3. The discharge of sedimentation pollution from agricultural fields, gardens, unsurfaced
433 driveways and parking lots, grading, excavations, open cuts, side slopes, and other land
434 surface disturbances shall be prevented, and all grading, excavations, open cuts, side slopes,
435 and other land surface disturbances shall be mulched, seeded, sodded, or otherwise protected
436 with appropriate sedimentation and erosion control treatments.
- 437 4. All cut slopes, fill slopes, side slopes, road or driveway embankments, and any other sloping
438 excavated area or land disturbance shall be stabilized at all times to prevent potentially
439 hazardous subsidence or collapse, or the discharge of sedimentation pollution. Such areas
440 shall at all times be maintained at a ~~slope ratio of no greater than two feet of horizontal run to~~
441 ~~one foot of vertical rise (2:1 slope)~~ grade of no greater than 40%.
- 442 5. Erosion and sedimentation from all land disturbance activities shall be controlled and
443 contained with silt fencing, road matting, and any other method approved by the
444 administrator to prevent the deposition of sedimentation pollution upon adjoining parcels,
445 lots, streets, and any surface water. Failure to properly install and/or properly maintain
446 approved sedimentation/erosion control measures shall constitute a violation of this
447 ordinance.
- 448 6. Furthermore, it is recognized that development projects are dynamic and that proposed and
449 approved sedimentation/erosion control measures may, from time to time, prove inadequate.
450 Therefore, it shall also be a violation of this ordinance to fail to install additional
451 sedimentation/erosion control measures upon observing, or being notified, that approved and
452 installed sedimentation/erosion control measures are insufficient.
- 453 7. Erosion and sedimentation control measures, structures, and devices shall be planned,
454 designed, and constructed to provide protection from the calculated maximum peak rate of
455 runoff from a ten-year storm.
- 456 8. On-site areas that are subject to severe erosion, and off-site areas that are especially
457 vulnerable to damage from erosion and/or sedimentation, shall be identified and receive
458 special attention.

-
9. All land-disturbing activities shall be planned and conducted to limit exposure to the shortest feasible time.
 10. Exposed slopes shall be planted or otherwise provided with ground cover, devices, or structures sufficient to restrain erosion within 30 calendar days after completion of any phase of grading.
 11. All uncovered areas shall be provided with protective cover unless the administrator has granted an extension of time, for good cause shown, upon written request of the property owner and developer. This cover shall be planted within 15 working days (exclusive of days where seedbed preparation is not possible due to weather as determined by the administrator) or 90 days following completion of any phase of grading, whichever period is shorter. Ground cover is not required on cleared land forming the future basin of a planned reservoir.
 12. Land disturbance shall not be permitted within surface water protection areas, except as permitted within this chapter.

C. *Duties of the administrator:*

1. The administrator shall require a copy of a North Carolina Department of Environmental Quality approved sedimentation and erosion control plan prior to the issuance of site plan approval for any project proposing to disturb one acre or more of land.
2. The administrator shall, from time to time, inspect areas of land disturbance for compliance with this section and shall take necessary action to remedy violations.
3. Upon observation of any violation of this section, the administrator shall notify the property owner and developer of such violation and the need to remedy it. If the property owner and developer fail to take immediate and appropriate action to remedy the violation, the administrator shall take action to remedy the violation in accordance with the procedures set forth herein. Furthermore, the administrator shall notify the appropriate office of the North Carolina Department of Environmental Quality of a potential violation of the North Carolina Sedimentation Pollution Control Act of 1973

13.5. Street design.

A. *Streets required:*

1. All new development shall abut a public street as required in Chapter 4 of this ordinance.
2. New development and substantial improvements to existing development with frontages on existing public streets shall be required to upgrade all their frontages to meet the standards of this chapter.
3. New development without frontages upon a public street shall, in all cases, extend and connect to a public street. Public street extensions and improvements required for new development, including those beyond the development boundary, are the sole responsibility of the developer. Such improvements must be provided in accordance with the requirements of the Chapter 62 of Brevard City Code and this ordinance. This section shall apply to all subdivisions, the development of which is subject to the control of the city, both inside and outside the city limits.
4. Streets shall be installed by the developer and dedicated to the city prior to the approval of any final subdivision plat or development plan unless a performance guarantee is provided to the administrator in accordance with City Code, this ordinance, and procedures established by the administrator. Streets shall be installed by the developer and dedicated to the city prior to the issuance of any certificates of occupancy for any building within that phase or on that street, as applicable to the particular development.

- 504 5. City streets shall be built to the minimum specifications of this chapter and Chapter 62 of Brevard
505 City Code, and shall comply with all standards and specifications of the public works director. New
506 streets in the ETJ shall meet all standards and requirements of the North Carolina Department of
507 Transportation.
- 508 B. *Streets to connect:* Streets shall interconnect within a development and with adjoining development in
509 accordance with Chapter 8 and 10 of this ordinance. Culs-de-sac are permitted only where topographic
510 conditions and/or exterior lot line configurations offer no practical alternatives for connection or
511 through traffic. Street stubs shall be provided with development adjacent to open land to provide for
512 future connections at the discretion of the administrator. Streets shall be planned with due regard to the
513 designated corridors shown on adopted plans and policies of the city or Transylvania County.
- 514 C. *Pedestrian and bicycle infrastructure:* Pedestrian and bicycle infrastructure shall be required as set forth
515 within this chapter and conformance with adopted plans and policies of the city or Transylvania County.
- 516 D. *Topographic considerations:* Wherever possible, street locations should account for difficult
517 topographical conditions, paralleling excessive contours to avoid excessive cuts and fills and the
518 destruction of significant trees and vegetation outside of street-rights-of way on adjacent lands.
- 519 E. [Infrastructure in steep slope areas: Infrastructure shall be installed in steep slope areas in accordance](#)
520 [with the provisions of this chapter and any other applicable provisions in Section 6.6.](#)
- 521 F. *Private streets and reserve strips:* There shall be no private streets or reserve strips platted in any
522 subdivision except as provided for in Chapter 4 of this ordinance.
- 523 ~~FG.~~ *On-street parking:*
- 524 1. On-street parking may be required by the administrator.
- 525 2. When required, all on-street parking provided shall be parallel. Curb or angle parking is permitted
526 upon approval of the administrator when the fronting buildings are more than 22 feet in height to
527 provide spatial definition and when the posted speed limit is less than 25 mph.
- 528 3. When required, minimum right-of-way widths shall be modified to account for on street parking.
- 529 ~~GH.~~ *Traffic calming devices:* The use of approved traffic calming measures is encouraged as alternatives to
530 conventional traffic control measures on Neighborhood Streets and within circulation areas of
531 commercial and mixed-use developments.
- 532 ~~HI.~~ *Flood elevations:* No street in an area subject to flooding shall be approved if it is more than one foot
533 below the elevation of the 100-year flood. The administrator may require, where necessary, profiles and
534 elevations of streets for areas subject to flooding. Fill may be used for streets in accordance with
535 Chapter 34 of Brevard City Code. Drainage openings shall be so designed as to not restrict the flow of
536 water and unduly increase flood heights.
- 537 ~~IJ.~~ *Storm drainage:* Stormwater shall not be discharged into any stream and shall be retained and treated
538 accordance with Chapter 6 of this ordinance, except that streets and related retention/treatment
539 infrastructure shall be designed to accommodate a 25-year, 24-hour storm drainage standard.
- 540 ~~JK.~~ *Street names:* Streets shall be named and property addressing assigned in accordance with Brevard City
541 Code, Chapter 62, Streets, Sidewalks and Other Public Ways, Article VII, Property Addressing and Road
542 Naming. The administrator shall require evidence that road names and property addresses have been
543 approved and assigned by the Transylvania County Property Addressing Coordinator prior to approving
544 any development.
- 545 ~~LK.~~ *Blocks:*
- 546 1. The lengths, widths, and shapes of blocks shall be determined with due regard to:
- 547 a. The provision of adequate building sites suitable to the special needs of the type of use
548 contemplated, and adequate public open spaces accessible and visible to residents.
- 549 b. District requirements and design criteria.

- 550 c. Needs of non-vehicular and vehicular traffic circulation and traffic control and safety.
- 551 d. Opportunities and constraints of topography, with convenient access to important physical
- 552 and topographical features such as lakes and rivers, significant areas of trees and other
- 553 natural features, and areas of high ground offering scenic views.
- 554 2. Blocks shall not be less than 200 feet nor more than 660 feet (1/8-mile), as measured from edge of
- 555 right-of-way, unless site and topography or other special circumstances are present as determined
- 556 by the administrator. Where deemed necessary by the administrator, a pedestrian crosswalk of at
- 557 least ten feet in width may be required.
- 558 3. Blocks shall have sufficient width to allow two tiers of lots of minimum depth except where single
- 559 tier lots are required to separate residential development from another type of use, or when
- 560 abutting a perennial stream or lake.

561 **LM.** *Landscaping:*

- 562 1. Streets shall be landscaped with street trees. Commercial streets shall have trees which
- 563 compliment the face of the buildings and which shade the sidewalk. Residential streets shall
- 564 provide for an appropriate canopy, which shades both the street and sidewalk, and serves as a
- 565 visual buffer between the street and the home.
- 566 2. All street trees shall be installed in accordance with Chapter 8 of this ordinance. Large canopy
- 567 trees shall be planted in a planting strip at a minimum average distance of 40 feet on-center.
- 568 3. The minimum width of all planting strips shall be six feet. For large canopy trees such as Willow
- 569 Oaks and Red Maples, a minimum of eight foot planting strip is suggested. Refer to Chapter 8 of
- 570 this ordinance for additional information on landscaping.

571 **4N.** *Street markers and traffic control signs:* Street markers and traffic control signs shall be required and

572 posted in accordance with city standards and the Manual of Uniform Traffic Control Devices. Such

573 infrastructure shall be installed by the developer prior to the issuance of any Certificates of Occupancy

574 for any building on that street.

575 **NO.** *Pedestrian and bicycle infrastructure:* Sidewalks, multi-use paths, or other pedestrian/bicycle

576 infrastructure shall be constructed in accordance with the following requirements:

- 577 1. In determining the type of pedestrian/bicycle infrastructure that shall be required the
- 578 Administrator shall refer to any adopted plan or policy of the city for guidance. Such plans or
- 579 policies include but are not limited to: *City of Brevard Comprehensive Transportation Plan, City of*
- 580 *Brevard Comprehensive Pedestrian Plan, City of Brevard Street Schedule, City of Brevard*
- 581 *Comprehensive Land Use Plan, City of Brevard Recreation Plan*, other master plans and small area
- 582 plans, and other plans and policies.
- 583 2. Sidewalks, multi-use paths, and other pedestrian and bicycle improvements shall be installed by
- 584 the developer and dedicated to the city prior to the approval of any final subdivision plat, or
- 585 issuance of final zoning approval or certificate of occupancy for any development plan. Pedestrian
- 586 and/or bicycle infrastructure shall be constructed within the street right-of-way. The approving
- 587 authority shall require the dedication of additional street right-of-way or a pedestrian easement
- 588 when sufficient right-of-way does not exist to comply with this requirement. The approving
- 589 authority may accept the dedication of additional right-of-way or a pedestrian easement in order
- 590 to accommodate alternative routes and designs that do not follow streets.
- 591 3. Streets shall be bordered by pedestrian/bicycle infrastructure on both sides. Exceptions to this
- 592 requirement and modifications to the design of pedestrian/bicycle infrastructure may be granted
- 593 by the TRC for developments in steep slope areas and where warranted by environmental or
- 594 topographic conditions, or where this requirement would serve no useful purpose.
- 595 4. Without exception, pedestrian/bicycle infrastructure shall be required along all new public and
- 596 private streets within new subdivisions or developments, and within new phases of existing
- 597 subdivisions and any other form of development.

5. Without exception, pedestrian/bicycle infrastructure shall be required along existing streets within or abutting new subdivisions and any other form of development (except subdivisions in GR districts establishing less than eight dwelling units); or along existing streets within or abutting any form of existing development undergoing substantial improvement (except single-family and duplex residential structures in GR districts).
6. Pedestrian/bicycle infrastructure shall be required along the same side of the street upon which the development fronts, except that when a development project is located on both sides of the same street the approving authority may require that infrastructure be installed on both sides of the street.
7. When site characteristics and/or traffic patterns are such that the construction of pedestrian/bicycle infrastructure in accordance with this section would be a hardship and would not result in useful pedestrian walkways, the administrator, upon recommendation from the TRC may allow the applicant to pay the designated cost of constructing such infrastructure into the city sidewalk fund in lieu of requiring construction of the infrastructure. In determining whether to accept a fee in lieu of construction of infrastructure, the administrator shall refer to any adopted plan or policy of the City for guidance. Such plans or policies include but are not limited to: *City of Brevard Comprehensive Transportation Plan, City of Brevard Comprehensive Pedestrian Plan, City of Brevard Street Schedule, City of Brevard Comprehensive Land Use Plan, City of Brevard Recreation Plan*, other master plans and small area plans, and other plans and policies.
8. The administrator may accept a performance guarantee for the construction of sidewalks on behalf of the city in situations where no other public infrastructure is proposed in accordance with Chapter 16 of this ordinance.
9. Multi-use paths and other infrastructure:
- Multi-use paths, and other pedestrian and bicycle infrastructure shall be provided instead of or in addition to sidewalks wherever called for on an adopted plan or policy of the city. Such plans or policies include but are not limited to: *City of Brevard Comprehensive Transportation Plan, City of Brevard Comprehensive Pedestrian Plan, City of Brevard Street Schedule, City of Brevard Comprehensive Land Use Plan, City of Brevard Recreation Plan*, other master plans and small area plans, and other plans and policies.
 - When a multi-use path is required in an area not adjacent to a public or private street, then such facility shall be credited towards the satisfaction of the open space requirements as set forth in Chapter 7 of this ordinance.
 - All required multi-use paths shall be dedicated to the City of Brevard by means of right-of-way or pedestrian easement.
 - On-street bicycle lanes shall be required when called for upon an adopted plan or policy of the city.
10. Pedestrian and bicycle improvements shall be as follows:

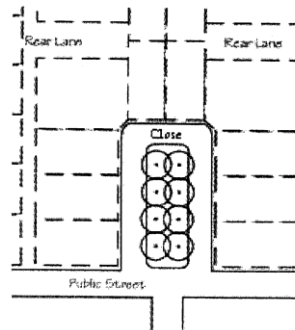
Zoning District	Facility Width	
	City Streets	NCDOT Streets*
GR	5 feet	5 feet
RMX, NMX, CMX, DMX, GI, IC	5 feet	8 feet
Public Streets	City Streets Required; Dedication to City Required	NCDOT Streets Required
Street Rights-of-Way	Required; Dedication to City Required	Required; Dedication to NCDOT Required
Multi-Use Path (where required)	10 feet	10 feet
On-Street Bike Lane (where required)	5 feet	5 feet

**Sidewalks are not required along alleys and commercial service streets except when required as a condition of a Conditional Zoning District, Group Development, or special use permit.*

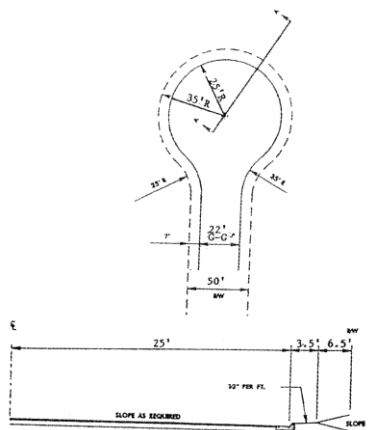
11. All pedestrian/bicycle infrastructure shall comply with the minimum requirements for handicapped accessibility in compliance with the North Carolina Accessibility Code or other federal, state, or local regulations. During the construction of pedestrian/bicycle infrastructure, whether new or replacement, handicapped ramps shall be placed in the sidewalk where it intersects with streets and other pedestrian and vehicular travel ways.
12. All sidewalks shall be made of 4,000 PSI concrete with a minimum depth of four inches, except that street and driveway crossings shall be a minimum of six inches in depth. Bike lanes and multi-use paths shall be made of asphalt, designed according to the North Carolina Bicycle Planning and Design Guidelines published by the NCDOT and shall include all appropriate signage and pavement markings. Alternative materials and designs may be approved by the TRC in consultation with the public works director.

P. *Culs-de-sac and closes.* Where practical, a close (see graphic, below) shall be used in place of a cul-de-sac. Culs-de-sac and closes shall be designed to facilitate the turning radius of emergency vehicles.

Close



Cul-de-sac with Curb and Gutter Section



PQ. *Intersections:*

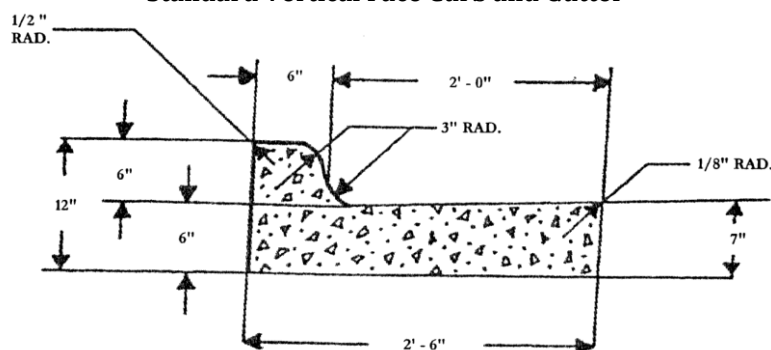
1. All streets shall intersect at right angles as nearly as possible and no street shall intersect at less than 60 degrees.
2. Where practical, intersections should be aligned to create four-way intersections.

3. Off-set intersections for local streets and neighborhood collectors should be at least 125 feet apart measured from centerline to centerline. A larger spacing in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards may be required for all other streets.
4. Property lines at street intersections shall be rounded with a minimum radius of 20 feet. At an angle of intersection of less than 90 degrees, a greater radius may be required.
5. Proper sight lines shall be maintained at all intersections of streets to permit adequate sight distance. Where the posted speed limit is less than 20 mph, the intersection sight distance may be reduced to 105 feet.
6. Bulb-outs are discouraged on narrow streets (less than 30 feet face-of-curb to face-of-curb) but encouraged on wider streets.
7. Property lines at street intersections shall be rounded with a minimum radius of 20 feet. Where a street intersects a state highway, the design standards of the state department of transportation shall apply.

QR. *Curb radii:* Curb radii shall be designed to reduce pedestrian crossing times along all streets requiring sidewalks. In general, curb radii should not exceed 20 feet except along NCDOT-maintained roads.

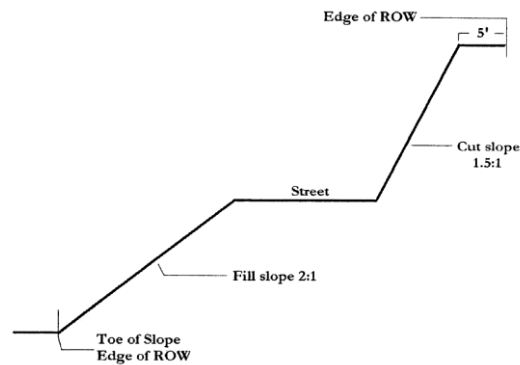
RS. *Curbs and drainage for city streets:* The following requirements shall apply to streets within the city. Streets within the ETJ shall meet all applicable requirements of the North Carolina Department of Transportation.

Standard Vertical Face Curb and Gutter



1. Curb and gutter shall be required on all new residential and commercial streets constructed within the city.
2. Standard vertical face curb and gutter within the city shall be two-foot, six-inch concrete with a height of six inches (see graphic, above). All curbing shall be properly backfilled.
3. Exceptions to this requirement may be made by the administrator subject to circumstances in the area under study. Such circumstances shall relate to the topography of the area, future maintainability of the streets, or other factors deemed relevant by the administrator.
4. Vertical face curbing is required along all streets with on-street parking and around all required landscaping areas and parking lots.
5. All drainage gates must be safe for bicyclists. Bicycle-safe drainage grates are types E, F, and G as approved by the NCDOT.
6. City street culvert dimensions shall be subject to the requirements of the public works director.
7. The right-of-way shall extend from a point five feet outward from the top of the bank of any cut slope to the toe of any fill slope. Maximum slope of any cut slope shall be at a ratio of no greater than 1.5 feet of horizontal run to one foot of vertical rise (1.5:1 slope), and the maximum slope of

698 any fill slope shall be at a ratio of no greater than two feet of horizontal run to one foot of vertical
699 rise (2:1 slope).



- 700
- 701 **ST.** *Centerline radius:* A 90-foot minimum centerline radius shall be used for local streets, parkside drives,
702 and minor streets between reverse curves though they may be reduced to 45 feet for design speeds less
703 than 20 mph. All other streets shall be in accordance with AASHTO standards.
- 704 **TU.** *Street lights:* Street lights shall be installed by the developer on all streets in accordance with Chapter 12
705 of this ordinance.
- 706 **UV.** *Posted speed limits:* All streets shall be posted in accordance with the Manual of Uniform Traffic Control
707 Devices and the City of Brevard Traffic Schedule.
- 708 **VW.** *Street grades:* The maximum permissible street grade shall be 18 percent.
- 709 **WX.** *Design standards:* Design standards not specifically addressed in this ordinance must comply with the
710 minimum design and construction criteria of the N.C. Department of Transportation.
- 711 **XY.** *Minimum right-of-way:* The administrator shall determine right-of-way widths based upon the
712 characteristics of the proposed development. However, unless otherwise specified, the minimum right-
713 of-way for all new streets within the city shall be 50 feet, and shall satisfy minimum requirements of the
714 North Carolina Department of Transportation in the ETJ.

715 **13.7. Infrastructure requirements in steep slope areas. Reserved**

- 716 ~~A. ——— *Infrastructure:* Infrastructure shall be installed in steep slope areas as defined in chapter 6 in~~
717 ~~accordance with the provisions of this chapter. However, the approving authority shall have the authority to~~
718 ~~modify infrastructure requirements and impose such conditions as are necessary to minimize the disturbance~~
719 ~~caused by the installation of infrastructure in steep slope areas. Modifications and conditions shall be~~
720 ~~intended to minimize disturbance and increase the safety and stability of infrastructure, and shall not be~~
721 ~~granted or imposed to reduce cost to the developer. Modifications and conditions may relate but shall not be~~
722 ~~limited to pavement width, sidewalk width, curb and gutter design and width, and shoulder design. The~~
723 ~~maximum road grade requirement shall not be modified.~~
- 724 ~~B. ——— *Culs-de-sac:* The required turnaround on a dead-end street in a steep slope area shall have a roadway~~
725 ~~diameter of not less than 50 feet. If the street length does not exceed 300 feet and if construction difficulties~~
726 ~~will not permit a turnaround, the use of a "Y" or "T" or other turning space of a design such as will allow a~~
727 ~~vehicle with a wheel base of at least 20 feet to complete a turning movement with a maximum of one backing~~
728 ~~movement may be permitted.~~
- 729 ~~C. ——— *Grading:* Grading shall not be required for the full right-of-way in steep slope area if the~~
730 ~~administrator determines that full grading will prevent convenient access to adjoining property or will~~
731 ~~destroy the natural beauty of the site by excessive cut and fill. Shoulder fill slopes shall not be steeper than~~
732 ~~2:1.~~

17.3. Environmental survey.

Identification of existing trees, understory vegetation, known endangered species, habitats, wetlands, perennial streams, floodplains, and topographical features on a site prior to the advanced preparation of development plans enables the reasonable and practical planned preservation of existing and environmentally sensitive areas.

This requirement provides the city and the applicant the ability to evaluate the proposed development in order to preserve vegetation, to improve the appearance of the development proposed and to encourage the use of the existing forest and tree canopy, specimen trees, and significant vegetation to satisfy the requirements of this chapter.

An environmental survey is intended to identify forest stands or trees of a uniform size and species; specimen trees of varying sizes and species, particularly free standing or open-grown or field grown trees; a distinctive tree line or forest edge; existing watercourses; and previously documented endangered species habitats.

A. The use of digital geographic data obtained from the City of Brevard, ~~or~~ Transylvania County, or the State of North Carolina is deemed to be sufficient for the sketch plan and master plan phases of submittal requirements.

B. For construction documents, the environmental survey requirements are as follows

1. Provide a general written description of the significant vegetation. Significant vegetation is defined as being 12 inches in diameter at breast height (DBH) or greater and native understory species two inches or greater (e.g. dogwood, holly, redbud, etc.), including tree species and uniform the size and height of stands of homogeneous trees including the typical tree species composition of the forest stand, typical tree size, and general health and vigor of the stand and specimen trees.
2. Denote the dripline of any existing forest stand, as measured between existing tree trunks six inches or greater located at the edge of the stand.
3. Identify all free standing, open grown or field-grown specimen trees located on the site 12 inches or greater DBH.
4. Show all other important natural features influencing site design such as the location of wetlands, rock outcroppings, site topography at ~~two~~ five-foot contour intervals, slopes steeper than ~~15~~ 35 percent, and perennial streams, natural drainage ways, lakes, and other water bodies, and floodplains indicating both the flood fringe and the flood way. USGS and FEMA data shall be used to determine the location of perennial streams.
5. Denote the presence of any known endangered species' habitats indicated in any surveys completed by Transylvania County, the State of North Carolina, or other governmental agency.
6. Show all buffer delineations as follows:
 - i. Buffer boundaries including all undisturbed buffer zones must be clearly delineated on all development plans for approval by the city, on all construction documents, including grading and clearing plans, erosion and sediment control plans, and site plans.
 - ii. Buffer boundaries for all required undisturbed buffer zones must be clearly delineated on-site prior to any land disturbing activities. Where existing trees are to be preserved in a buffer zone, limits of grading shall maintain a minimum 20-foot separation from the base of each tree on the upland side of the buffer or to the dripline.
 - iii. Buffer boundaries including all buffer zones as well as all buffer requirements must be specified on the record plat, on individual deeds, and in property association documents for lands held in common.

- C. This requirement can be waived by the administrator if the site lacks qualifying natural features.

17.4. Sketch plan requirements.

In addition to information on the environmental survey, the sketch plan shall show in simple sketch form the proposed layout of streets, lots, buildings, public open spaces and other features in relation to existing conditions based upon the size of the tract proposed for development. All plans shall be submitted at a scale not less than one inch = 50 feet unless otherwise authorized by the administrator. It shall also include the following information:

- A. A sketch vicinity map, including north arrow, showing the location of any proposed building(s) or subdivision in relation to neighboring tracts, subdivisions, roads, and waterways.
- B. The name, address, and telephone number of the property owner.
- C. The name of the proposed development project.
- D. The boundary lines of the property.
- E. The total acreage.
- F. The existing and proposed land uses and the existing land uses of adjacent properties.
- G. The existing topographic conditions of the property including contours not exceeding five-foot intervals. Transylvania County, ~~or~~ City of Brevard, or State of North Carolina topographic information may be used to fulfill this requirement.
- H. The location, names, and private and recorded right-of-way widths of any existing streets on or within 300 feet of the land to be subdivided.
- I. Lots of adjacent developed or platted properties.
- J. Zoning classification of the land and adjacent properties.
- K. Illustrative building elevations denoting general design elements and materials.
- L. Watershed classification, if any.
- ~~M. Delineation of slopes greater than 15 percent.~~
- ~~N. Delineation of slopes greater than 25 percent.~~
- NO. Floodway, non-encroachment, and surface water protection area delineation.
- OP. Floodplain delineation.

17.5. Master plan requirements.

The master plan shall be drawn to the following specifications and must contain or be accompanied by the information listed below. This section defines both preliminary and final master plans. A preliminary master plan may only be submitted as part of an application for a conditional zoning district. All plans shall be submitted at a scale not less than one inch = 50 feet unless otherwise authorized by the administrator.

- A. Processing or review of a preliminary or final master plan may not proceed without all of the following information:
 - 1. The boundary, as determined by survey, of the area to be developed with all bearings and distances shown and the location within the area, or contiguous to it, of any existing streets, railroad lines, perennial streams, wetlands, easements or other significant features of the tract.
 - 2. Scale denoted both graphically and numerically with north arrow.

3. A vicinity map at a scale no smaller than one inch equals 1,200 feet showing the location of the subdivision with respect to adjacent streets and properties.
 4. The proposed name of the development, street names, the owner's name and address, the names of adjoining subdivisions or property owners, the name of the city, county, and state in which the development is located, the date of plan preparation, and the zoning classification of the tract to be developed, and of adjoining properties.
 5. Corporate limits and extraterritorial jurisdiction boundaries (where applicable).
 6. A timetable for estimated project completion for each phase proposed.
 7. Original contours at intervals of not greater than ~~two~~five feet for the entire area to be subdivided or developed and extending into adjoining property for a distance of 300 feet at all points where street rights-of-way connect to the adjoining property and 50 feet at all other points of common project boundaries. Transylvania County or City of Brevard digital topography may be used to satisfy this requirement but should be field-verified to ensure accuracy. This requirement may be waived for developments smaller than one acre or where insufficient topographic changes warrant such information.
 8. The location of any building restriction areas (i.e. flood hazard areas, buffer locations, watershed protection districts, and/or jurisdictional wetlands), where applicable.
 9. Site calculations shall include total acreage of tract, acreage in parks and other non-residential uses, total number and acreage of parcels, and the total number of housing units.
 10. The following statement shall be placed upon all final master plan documents, as applicable:

"Areas delineated upon this plat or plan as a protection area or Special Flood Hazard Areas is subject to limitations upon development as set forth Chapter 34 of Brevard City Code, and any development, disturbance, or encroachment is prohibited except in accordance therewith."
- B. Requirements for preliminary master plans. A preliminary master plan may only be submitted as part of an application for a conditional zoning district. A preliminary master plan may be more conceptual in nature than a final master plan, and shall be sufficient to demonstrate deviations from the base zoning district and the scope of the project.
1. At a minimum, a preliminary master plan shall show the conditions both requested and offered that deviate from the base zoning district.
 2. A preliminary master plan may divide the district into land use areas and specify proposed uses and other development standards which shall apply to such land use area. The preliminary master plan may also depict transition zones between any such land use areas which shall permit deferring the determination of the precise boundaries between land use areas until final master plan review.
 3. Additional submittal requirements for the preliminary master plan shall be determined by the administrator in the pre-application meeting or during review. The approving authority may require additional submittals as deemed necessary due to the particulars of the project. A preliminary master plan may include the following information, as applicable:
 - (a) The location of proposed buildings, parking and loading areas, streets, alleys, easements, lots, parks or other open spaces, site reservations (i.e. school sites), property lines and building setback lines with street dimensions, and tentative lot dimensions.
 - (b) The traffic and circulation system demonstrating a safe and adequate on-site transportation system that addresses vehicular, bicycle, transit and pedestrian circulation. The on-site transportation system shall be integrated with the off-site transportation circulation system of the city.

- (c) The proposed limits of construction for all proposed development activity, including all required protected areas and open space.
- (d) Landscaping plan and/or vegetation preservation plan in accordance with Section 17.9.
- ~~(e) Tree preservation plan in accordance with Section 17.9.~~
- (ef) Lighting plan in accordance with Section 17.10.
- (fg) Architectural plans in accordance with Section 17.11.
- (gh) Traffic impact analysis (if required) in accordance with Section 17.12.
- (hi) Stormwater management concept plan in accordance with Section 17.13.
- (ij) Conceptual utilities plan. Conceptual plans for utilities to serve the development, including sanitary sewers, storm sewers and water lines.
- (jk) Environmental impact statement, pursuant to Article 113A of the North Carolina General Statutes, if: the development exceeds two acres in area, and; if the BPB deems it necessary due to the nature of the land or peculiarities in the proposed design.
- (kl) Development permit and certification application with supporting documentation as required by the flood hazard prevention requirements of Chapter 6 of this ordinance.
- C. Requirements for final master plans.
1. A final master plan shall include all of the following information, as applicable:
- (a) The location of proposed buildings, parking and loading areas, streets, alleys, easements, lots, parks or other open spaces, site reservations (i.e. school sites), property lines and building setback lines with street dimensions, and tentative lot dimensions.
- (b) The transportation and circulation system showing typical cross-sections of proposed streets. Where a proposed street is an extension of an existing street, the profile of the street shall include 300 feet of the existing roadway, with a cross section of the existing street. Where a proposed street within the development abuts a tract of land that adjoins the development and where said street may be expected to extend into said adjoining tract of land, the profile shall be extended to include 300 feet of the said adjoining tract.
- (c) The proposed limits of construction for all proposed development activity, including all required protected areas and open space.
2. Additional submittal requirements for the final master plan shall be determined by the administrator in the pre-application meeting or during review. The approving authority may require additional submittals as deemed necessary due to the particulars of the project. A final master plan may include the following information and supplemental plans, as applicable.
- (a) Landscaping plan and/or vegetation preservation plan in accordance with Section 17.9.
- ~~(b) Tree preservation plan in accordance with Section 17.9.~~
- (be) Lighting plan in accordance with Section 17.10.
- (ce) Architectural plans in accordance with Section 17.11.
- (de) Traffic impact analysis (if required) in accordance with Section 17.12.
- (ef) Stormwater management concept plan in accordance with Section 17.13.

- (f) Conceptual utilities plan. Conceptual plans for utilities to serve the development, including sanitary sewers, storm sewers and water lines.
- (g) Environmental impact statement, pursuant to Article 113A of the North Carolina General Statutes, if: the development exceeds two acres in area, and; if the BPB deems it necessary due to the nature of the land or peculiarities in the proposed design.
- (h) Development permit and certification application with supporting documentation as required by the flood hazard prevention requirements of Chapter 6 of this ordinance.

17.9. Landscape plan requirements.

A. A ~~tree~~/landscaping plan and/or vegetation preservation plan shall be required prior to any site disturbance for:~~on~~

1. ~~All~~ non-residential uses;

2. ~~All~~ ~~and~~ multi-family uses in a residential district; ~~prior to any site disturbance.~~

3. Any development in steep slope areas, in accordance with Section 6.4; and

4. Any other development where a landscaping plan and/or vegetation preservation plan is deemed necessary by the administrator due to the particulars of the project.

B. The plan shall contain the following information:

1. ~~A.~~ — An accurate drawing of property boundaries.
2. ~~B.~~ — A development summary including the total development acreage, proposed use(s), required parking and provided parking spaces, and total building square footage.
3. ~~C.~~ — The location of proposed buildings, driveways, parking areas, required parking spaces, and traffic patterns.
4. ~~D.~~ — The location of all overhead and underground utilities.
5. ~~E.~~ — Name of the project, name and address of owner, name and address of engineer, scale, date, legend, and north arrow.
6. ~~F.~~ — General location, type and quantity of existing plant materials.
7. ~~G.~~ — Existing plant materials and areas to be left in natural state.
8. ~~H.~~ — Methods and details for protecting the critical root zone (CRZ) of existing plant materials during construction.
9. ~~I.~~ Locations, size and labels for all proposed plants.
10. ~~J.~~ Plant lists with common name, botanical name, quantity, and spacing and size of all proposed landscape material at the time of planting.
11. ~~K.~~ — Location and description of other landscape improvements, such as earth berms, walls, fences, screens, sculptures, fountains, lights, courtyards, walks or paved areas. Berms shall have topo.
12. ~~L.~~ — Planting and installation details as necessary to ensure conformance with all required standards as referenced in Chapter 9.

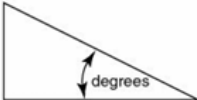
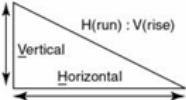
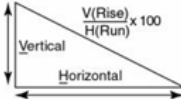
19.3. Definitions.

Cut slope: The exposed ground surface resulting from excavation of material.

Fill slope: The exposed ground surface resulting from deposition of material.

Grade: See Slope.

Slope: The extent to which a land form deviates from the perfectly horizontal as expressed in percent, degree, ratio. The following table explains the conversion between these separate methods of expressing the extent of slope.

Slope Measurements		
Degrees	Ratio	Percent
		
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%

Slope, moderately steep: Areas at or above 2,250 feet in elevation above mean sea level and with an average slope between 25% and 34%.

Slope, steep: Areas at or above 2,250 feet in elevation above mean sea level and with an average slope of 35% or greater.

4.9. Fences and walls.

- A. All fences and walls shall be constructed so that the best face faces outward from the parcel upon which it is constructed and towards adjacent properties. The "best face" shall generally mean the side opposite to framing members.
- B. Fences and walls shall not be placed within public utility easements or public right-of-way without first securing an encroachment agreement from the City of Brevard, the North Carolina Department of Transportation, or other appropriate entity.
- C. Fence or wall height shall be measured from the side of the fence or wall that is exterior to the property as the vertical distance between the lowest adjacent ground level, natural or filled, and the top of the fence material. Fence heights are restricted as follows:
1. In industrial districts, and public safety and other critical facilities. Fences or walls shall be no greater than six feet in height before the front building line and no greater than eight feet in height in the side or rear yard.
 2. All other districts and uses. Fences or walls shall be no greater than eight feet in height behind the front building line or four feet in height before the front building line.
 3. No closed fence or wall shall be greater than two-and-a-half feet in height when placed within the sight triangle of any intersection as specified in Section 4.5 of this ordinance. Open fences are exempt from this provision.
- D. Fence and wall materials shall conform to the following requirements:
1. *Residential districts:*
 - (a) All fences and walls must be of brick, stone, stucco, wrought iron, wood, or other materials similar in appearance and durability, except that chain link or woven wire may be used in the side and rear yard behind the front building line.
 - (b) All other wire fences, including barbed wire or concertina wire, are prohibited.
 - (c) Nothing in this chapter shall prevent the administrator from approving architecturally variant uses of material to allow creative fence design, such as the contemporary look of heavy-gauged welded wire panels framed in timber.
 - (d) The use of plastic plumbing pipe is a prohibited fence material.
 2. *Commercial districts:*
 - (a) All fences and walls must be of brick, stone, stucco, wrought iron, wood, or other materials similar in appearance and durability.
 - (b) Chain link wire fences may be used as secure enclosures internal to the property or site subject to the following requirements:
 - (1) Chain link fences shall not be visible from a public right-of-way,
 - (2) Chain link fences shall not serve as a perimeter fence or property line fence unless buffered by a type A buffer yard on all sides, and then only in the side or rear yard behind the front building line.
 - (c) All other wire fences, including barbed wire or concertina wire, are prohibited.
 - (d) All walls and fences shall be materially similar to other walls and fences in the same block or general vicinity.
 3. *Industrial districts, public safety facilities, and other critical facilities:*

- (a) All fences and walls must be of brick, stone, stucco, wrought iron, wood, or other materials similar in appearance and durability, and shall be materially similar to other walls and fences on the same block or general vicinity.
- (b) Vinyl coated, chain link fencing may be approved by the administrator as perimeter fencing with additional filtering through openings using opaque or semi opaque slats or screening or by installing a type A landscaping buffer between incompatible uses, between different zoning districts or where visible from a public street.
4. *Barbed wire*: Barbed wire may be permitted within bona-fide agricultural operations within any zoning district.
- E. Retaining walls shall also conform to the following requirements:
1. Retaining walls should minimize the impacts of cut and fill on a site.
 2. The height of any retaining wall should not exceed five feet unless required to be higher for engineering reasons.
 - (a) An increase in retaining wall height may be allowed if the proposed design minimizes the cut and fill impacts and enhances the existing landscape.
 3. In areas where cuts are steeper, a stepped or terraced wall should be used. Large, unbroken retaining walls in a uniform plane should be avoided.

6.1. Statutory Authority and Legislative Findings-of-Fact.

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Articles 7, 11, 9, and 13 of Chapter 160D; and Article 8 of Chapter 160A of the North Carolina General Statutes, delegated to local governmental the responsibility units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

The City Council of the City of Brevard, North Carolina, makes the following legislative findings-of-fact.

- A. The flood prone areas within the City of Brevard and its extraterritorial jurisdiction are subject to periodic inundation which results in loss of life, property, health hazards, safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- B. The development activities listed herein contribute, individually and cumulatively, to the flood losses addressed above: (1) obstructions in floodplains causing increases in flood heights and velocities; (2) the occupancy in flood prone areas of uses vulnerable to floods or other hazards; (3) the loss of wetlands, streamside riparian areas, and other lands that slow, absorb, retain, and cleanse storm and flood waters; and (4) the expansion of impervious surfaces both within and outside of flood prone areas that cause increases in the velocity and rate of the discharge of stormwater into bodies of water.
- C. The discharge of urban pollutants and sedimentation into bodies of water results in health and safety hazards and the impairment of environmentally and economically significant aquatic wildlife habitat, adversely affecting the public health, safety, and general welfare.
- D. Development activities cause sedimentation pollution through untreated and uncontrolled stormwater from impervious areas, improper land disturbance, and the loss of wetlands, streamside riparian areas, and other lands that absorb and cleanse storm and flood waters.
- E. Brevard is in a unique geographical location where mountains, valleys and hills constitute significant natural topographical features. The mountains and hillsides of Brevard are visible from

many locations within the city, adding to the quality of life for residents and improving tourism opportunities. These areas are sensitive to development and measures shall be taken to preserve viewshed, maintain slope stability, control erosion and stormwater runoff.

- F. The steeply sloping areas within the City of Brevard and its extraterritorial jurisdiction are particularly susceptible to erosion and landslides, and pose particular difficulties in the construction and maintenance of public infrastructure and the provision of public services. Development activities in such areas are likely to result in the loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- G. On June 20, 2005, the City of Brevard, in conjunction with Transylvania County and the City of Rosman, adopted the Multi-Jurisdictional Hazard Mitigation Plan as an additional resource to substantially and permanently reduce the planning area's vulnerability to natural hazards. The plan is intended to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the natural environment. This is to be achieved by increasing public awareness, documenting resources for risk reduction and loss prevention, and identifying activities to guide the planning area towards the development of a safer, more sustainable community.

6.2 Statement of Purpose

It is the purpose of this chapter to protect and promote the public health, safety and general welfare by preventing the loss of life and/or public and private economic loss due to landslides, floods, erosion and sedimentation pollution. It is further the purpose of this chapter to protect our existing environmental resources, including steep slopes, floodplains, stream corridors, wetlands, watershed and groundwater recharge areas, soils, forest stands, specimen trees, and other significant vegetation and wildlife, which are of economic value to the city and its citizens and make Brevard a desirable place to live and visit.

In furtherance of this purpose, the regulations contained herein are designed to accomplish the following:

1. Restrict or prohibit uses that are or may be dangerous to health, safety, and property or that may result in damaging increases in erosion, flood heights or velocities;
2. Require that uses and infrastructure vulnerable to the movement of earth or flooding be protected against such damage at the time of initial construction;
3. Control the alteration of steep slopes, natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodgates;
4. Control filling, grading, dredging, and all other development that may increase erosion or flood damage;
5. Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands; and
6. Require that stormwaters that may damage property, increase flood hazards, or pollute surface waters be adequately controlled and treated.

6.3. Objectives.

The objectives of this chapter are as follows:

1. To protect human life and health;
2. To minimize the expenditure of public money for costly stormwater or flood control and stormwater management projects;

3. To minimize the need for rescue and relief efforts associated with flooding and landslides and generally undertaken at the expense of the general public;
4. To minimize prolonged business losses and interruptions;
5. To minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located on steep slopes or in flood prone areas;
6. To help maintain a stable tax base by providing for the sound use and development of steep slope areas, flood prone areas, and the control of stormwater runoff;
7. To minimize the impairment of, or damage to, sensitive natural areas and bodies of water; and
8. To ensure that potential buyers are aware that property is in a special flood hazard area or area of known landslide potential.
9. Protect the viewshed and natural beauty of natural slopes and floodplains.

6.4. Steep slope area requirements.

In accordance with G.S. 160D-703(d), the provisions contained in this section shall apply to all areas within the planning jurisdiction of the City of Brevard that are classified as "moderately steep slope areas" and "steep slope areas". These provisions do not limit or negate the effect of other provisions of this ordinance which may apply to steep slope areas.

A. *Applicability:*

1. This section shall apply to any subdivision plat, land-disturbing activity, building permit, or any other development proposal on a parcel located at or above 2,250 feet in elevation above mean sea level and with an average slope of 25% or greater.
 - i. "Moderately steep slope" areas are defined as those areas with a slope of 25% to 34%.
 - ii. "Steep slope" areas are defined as those areas with a slope of 35% or greater.
 - iii. A parcel is considered at or above the elevation if any area within the parcel boundaries is at or above the stated elevation.
2. The provisions in this section are intended to encourage a sensitive form of development and to allow for a reasonable use that complements the natural and visual character of the community.

B. *Determining slope:* Slope shall be determined in accordance with the methods and procedures contained herein.

1. Prior to commencing any development or land-disturbing activity and prior to issuing any permits and/or other approvals, the calculated slope for the parcel(s) shall be approved by the Planning Department.
 - i. Parcels where no portion of the lot is located at or above 2,250 feet in elevation above mean sea level are exempt from this requirement.
 - ii. Incidental improvements and additions to existing structures, accessory structures less than 1,000 square feet in ground floor area, and interior renovations are exempt from this requirement.
2. Calculations and supporting documentation shall be submitted to the Planning Department for review prior to or in conjunction with the applicable submittals. The administrator shall: (a) request additional information; (b) request revisions to the slope calculation submittal; or (c) issue written concurrence with the determination of slope, as submitted.

- 174 i. Each slope calculation and supporting documentation submitted to the Planning
175 Department for review shall include a scaled map, accurately showing the
176 topography for the entire land tract and the parcel boundaries.
- 177 ii. In cases where the applicant or property owner does not agree with the
178 determination made by the administrator, the alternative slope analysis shall be
179 heard and decided on by the Board of Adjustment, following a notice of appeal filed
180 with the City Clerk.
- 181 3. Slope shall be determined through use of one of the following methods:
- 182 i. The approved contour interval formula:
- 183 Slope (**S%**) is equal to the total length (**L**) of contour lines within a given parcel,
184 multiplied by the contour interval (**I**) of said parcel, then multiplied by .0023,
185 divided by the area (**A**) of the parcel.
- 186 Or,
- 187
$$S\% = \frac{(L \times I)}{A} .0023$$
- 188 A
- 189 The calculation shall use the smallest contour interval for which maps are available
190 or at a minimum of five-foot intervals.
- 191 .0023 is the product of two constants, one of which converts feet into acres and
192 one of which converts a decimal fraction into a percentage, the value of .0023 is the
193 percentage of one square foot of one acre.
- 194 ii. Analysis conducted and sealed by a professional surveyor, engineer, or landscape
195 architect using recognized, industry-accepted methods.
- 196 1. The administrator may require slope calculations to be sealed by a
197 professional surveyor, engineer, or landscape architect for projects with
198 over an acre of disturbed area.
- 199 4. Slope shall be rounded to the nearest whole number and noted on all development plans
200 required by this ordinance.
- 201 5. Areas placed in a permanent conservation easement, dedicated to the public for open space,
202 protected as open space by restrictive covenants, or otherwise permanently protected in a
203 natural state with prohibition on vegetation removal and land-disturbing activities may be
204 removed from the calculation of parcel slope.
- 205 i. The applicant shall provide also provide the legal documentation for permanent
206 protection and a closed perimeter line delineating the revised boundaries for
207 calculating slope.
- 208 ii. Nothing shall limit the ability of moderately steep slope areas, steep slope areas,
209 conservation easements, or other means of permanent land protections to be
210 included in the total parcel area for the means of calculating density.
- 211 C. *Geotechnical analysis:*
- 212 1. Development in steep slope areas shall be required to undergo geotechnical analysis by a
213 registered professional engineer to determine the stability of the underlying geology and
214 soils to support the proposed project. The geotechnical analysis report shall be required to
215 be submitted prior to the issuance of a zoning permit.
- 216 2. If a geotechnical analysis has been performed for subdivision approval that includes
217 building pad analysis of the individual lots, it is unnecessary to submit a new analysis for
218 each lot, provided the location of structures on each lot does not change by more than 20
219 feet in any one direction.

220 D. *Development projects with moderately steep slope areas and/or steep slope areas:*

- 221 1. Development and subdivision plans shall be designed to minimize disturbance to the
222 natural landform and should not destroy the visual quality and community character.
- 223 i. To the extent possible given topographic and other physical constraints, land
224 disturbance should be confined to portions of the lot not considered to be steep
225 slope areas.
- 226 ii. Buildings, parking, and other improvements should be clustered on less steep and
227 sensitive areas of the site to reduce the amount of grading.
- 228 iii. Projects are encouraged to demonstrate terrain-adaptive design and construction
229 techniques.
- 230 2. Proposed land-disturbing activity shall meet all applicable local and State regulations
231 relating to soil erosion and sedimentation control.
- 232 3. Land disturbance shall be limited to the minimum required for building foundations,
233 driveways, stormwater management measures and immediate areas surrounding these
234 elements as required by this ordinance.
- 235 i. With the exception of approved stockpiling or restoration efforts, substantial earth
236 moving beyond that required for the installation or construction of approved
237 buildings, structures, driveways, or stormwater management measures shall not
238 be permitted.
- 239 4. When grading is necessary, it should be blended with the natural land form as much as
240 possible. Rigid contouring should be avoided, and contours should be rounded to appear
241 undulating and natural.
- 242 5. The approving authority shall have the right to impose such conditions as are necessary to
243 protect public health, safety, and welfare for projects in steep slope or very steep slope
244 areas as authorized under the provisions of this section because the minimum standards
245 set forth in this ordinance are insufficient given the exceptional and unique conditions of
246 topography, location, shape, size, drainage or other physical features of the site, or because
247 of the special nature and character of surrounding development.
- 248 i. Such conditions shall be reasonable and shall be limited to the minimum additional
249 improvements necessary to protect the public health, safety or welfare. Such
250 conditions may, without limitation, pertain to the following:
- 251 1. The retention and planting of vegetation;
- 252 2. Sedimentation and erosion controls;
- 253 3. Cut and fill slope design and stabilization;
- 254 4. The degree of land disturbance; and
- 255 5. The location, form and design of proposed structures and driveways so as
256 to minimize land disturbance and ensure structural integrity; and
- 257 6. The location, form and design of subdivision lots, streets, and public
258 utilities, so as to minimize land disturbance and ensure structural
259 integrity.
- 260 ii. The administrator may reduce the required setbacks in accordance with Section
261 2.3 in order to facilitate compliance with this section.

262 E. *Conditional zoning districts with steep slope areas:*

- 263 1. It is strongly encouraged that any proposed development project containing extensive
264 steep slope areas be considered in accordance with the procedures for conditional zoning

districts, which process allows for creative designs that may enhance development potential while achieving the steep slope protection requirements of this section.

2. City council may allow development on steep slope areas by means of a conditional zoning district. Council may require the clustering of structures and impose any other necessary condition upon the design of the development in order to minimize impacts and uphold the intent of this section.

F. Grading extent:

1. The maximum extent of grading on a property with moderately steep or steep slope areas shall be reduced to support the goals and objectives of this section. This shall be governed by the following table:

Average Existing Slope	Maximum Percent of Site Graded
25% - 29%	70%
30% - 34%	60%
35% - 39%	50%
40% - 44%	35%
45% or greater	20%

2. Additional grading may be awarded to projects on steep slope areas if any of the following conditions are met. The credits may accumulate to equal the total reduction outlined herein.

Credit	Conditions
10%	Buildings and parking areas are properly screened by vegetation to minimize the visual impact from key viewing areas, which include downtown, public parkland and other public recreational areas, and major streets and highways
10%	The steepest portions and/or most visible portions of the lot are placed in a permanent conservation easement, dedicated to the public for open space, protected as open space by restrictive covenants, or otherwise permanently protected in a natural state with prohibition on vegetation removal and land-disturbing activities
10%	Exterior colors for new buildings and structures, including roofs, are coordinated with the predominate colors of the surrounding landscape to minimize contrast between the structure and the natural environment

3. Additional grading may also be permitted as part of a conditional zoning district.

G. Density:

1. Densities of residential development shall be reduced in steep slope areas to support the goals and objectives of this section. This shall be governed by the following table:

Average Existing Slope	Maximum Residential Density
35% - 39%	20% reduction of underlying zoning district
40% - 44%	50% reduction of underlying zoning district
45% or greater	70% reduction of underlying zoning district

2. Additional density may be awarded to projects on steep slope areas if any of the following conditions are met. The credits may accumulate to equal the total reduction outlined herein.

Credit	Conditions
10%	Grading is limited to 10% of more under the maximum allowed under this section
10%	Buildings and parking areas are properly screened by vegetation to minimize the visual impact from key viewing areas, which include

	downtown, public parkland and other public recreational areas, and major streets and highways
10%	The steepest portions and/or most visible portions of the lot are placed in a permanent conservation easement, dedicated to the public for open space, protected as open space by restrictive covenants, or otherwise permanently protected in a natural state with prohibition on vegetation removal and land-disturbing activities
10%	Exterior colors for new buildings and structures, including roofs, are coordinated with the predominate colors of the surrounding landscape to minimize contrast between the structure and the natural environment

- i. The maximum residential density shall not exceed the maximum residential density permitted in the underlying zoning district as outlined in Section 2.3, unless such provisions are specified in a conditional zoning district.

H. *Building height:*

1. SEE ATTACHMENT 3

2. Accessory structures shall not exceed 15 feet in height on any side.
3. Applicants shall provide architectural plans and building elevations to demonstrate compliance with this section.

I. *Tree and vegetation preservation:*

1. Landscaping / vegetation preservation plans, in accordance with Section 17.9, shall be required for all development projects on steep slopes to ensure compliance with this section.
2. Plant materials should be used that blend with the mountainside of hillside. Landscape schemes that are rough, natural, and/or subdued in character are encouraged.
3. All trees and other specified vegetation shall be preserved except in the area approved for grading or within 20 feet of the building footprints.
- i. Non-native or invasive species may be removed.
4. In the event a property owner desires to remove trees and other protected vegetation required to be preserved in this section, they may submit an alternative landscape plan for consideration by the Brevard Planning Board.

i. This alternative landscape plan must contain:

1. a tree survey of the property showing which trees and other protected vegetation will be removed and which will remain;
2. the location of any structures, driveways, and other impervious surfaces; and
3. an explanation of the reason(s) for removal of required trees and other protected vegetation, including a statement of how the removal of the required trees and other protected vegetation supports the purposes of this section or how such removal can be mitigated consistent with the purposes of this section.

- ii. The Planning Board may approve, approve with conditions, or deny the alternative landscape plan. If conditions are established, they shall be enforceable in accordance with the provisions of the development permit.

J. *Infrastructure:*

1. Infrastructure shall be installed in steep slope areas as defined in chapter 6 in accordance with the provisions of this chapter.

2. Roads and driveways created on parcels with steep slopes should follow the natural terrain, unless necessary to accomplish the purpose.
 3. The approving authority shall have the authority to modify infrastructure requirements and impose such conditions as are necessary to minimize the disturbance caused by the installation of infrastructure in steep slope areas.
 - i. Modifications and conditions shall be intended to minimize disturbance and increase the safety and stability of infrastructure, and shall not be granted or imposed to reduce cost to the developer.
 - ii. Modifications and conditions may relate but shall not be limited to pavement width, sidewalk width, curb and gutter design and width, and shoulder design. The maximum road grade requirement shall not be modified.
 4. Culs-de-sac:
 - i. The required turnaround on a dead-end street in a steep slope area shall have a roadway diameter of not less than 50 feet.
 - ii. If the street length does not exceed 300 feet and if construction difficulties will not permit a turnaround, the use of a "Y" or "T" or other turning space of a design such as will allow a vehicle with a wheel base of at least 20 feet to complete a turning movement with a maximum of one backing movement may be permitted.
 5. Grading:
 - i. Grading shall not be required for the full right-of-way in steep slope area if the administrator determines that full grading will prevent convenient access to adjoining property or will destroy the natural beauty of the site by excessive cut and fill.
 - ii. Shoulder fill slopes shall not be steeper than 40%.
- K. *Subdivision of land:*
1. Newly created parcels of land shall have adequate developable area outside of steep slope areas, except parcels created and restricted for the purpose of recreation, conservation or open space protection and land processes which are exempt from the subdivision ordinance.

6.5. - Sedimentation and erosion prevention.

In order to prevent soil erosion and sedimentation pollution of streams, springs, flat water bodies, drainage networks, or other surface waters, the property owner shall at all times comply with all requirements of the North Carolina Sedimentation Pollution Control Act of 1973, as amended.

- A. The following conditions are considered hazardous, a nuisance, and a threat to property and the environment; creating such conditions and/or allowing them to continue shall constitute a violation of this ordinance.
1. The discharge or deposition of sedimentation pollution from one parcel of land onto another parcel of land of the same or different ownership.
 2. The discharge or deposition of sedimentation pollution onto a street or public right-of-way, including drainage ditches and swales within a public right-of-way.
 3. The discharge or deposition of sedimentation pollution into any surface water, including drainage ditches and swales.

-
- 365 4. The discharge or deposition of sedimentation pollution into wetlands, surface water
366 protection areas, or other protected areas.
- 367 5. The uncontrolled or uncontained movement of sedimentation pollution within any parcel of
368 land.
- 369 6. The presence of destabilized slopes that may collapse and pose a hazard to life or property.
- 370 7. Any other condition that may pose a nuisance or hazard to life, property, or the environment
371 by means of the movement, collapse, discharge, or deposition of earth.
- 372 B. *Requirements of the property owner and developer.* The property owner or developer or both, as the
373 case may be, are responsible for ensuring that development complies with the following
374 requirements of this ordinance:
- 375 1. No land disturbance activity of any kind shall take place without a site plan approval
376 authorizing development of the site. The tilling of earth for the cultivation of crops and other
377 incidental land disturbances as determined by the administrator shall be exempt from this
378 requirement.
- 379 2. Development shall at all times comply with the provisions of this Chapter and with the
380 provisions of the North Carolina Sedimentation Pollution Control Act.
- 381 3. The discharge of sedimentation pollution from agricultural fields, gardens, unsurfaced
382 driveways and parking lots, grading, excavations, open cuts, side slopes, and other land
383 surface disturbances shall be prevented, and all grading, excavations, open cuts, side slopes,
384 and other land surface disturbances shall be mulched, seeded, sodded, or otherwise protected
385 with appropriate sedimentation and erosion control treatments.
- 386 4. All cut slopes, fill slopes, side slopes, road or driveway embankments, and any other sloping
387 excavated area or land disturbance shall be stabilized at all times to prevent potentially
388 hazardous subsidence or collapse, or the discharge of sedimentation pollution. Such areas
389 shall at all times be maintained at a grade of no greater than 40%.
- 390 5. Erosion and sedimentation from all land disturbance activities shall be controlled and
391 contained with silt fencing, road matting, and any other method approved by the
392 administrator to prevent the deposition of sedimentation pollution upon adjoining parcels,
393 lots, streets, and any surface water. Failure to properly install and/or properly maintain
394 approved sedimentation/erosion control measures shall constitute a violation of this
395 ordinance.
- 396 6. Furthermore, it is recognized that development projects are dynamic and that proposed and
397 approved sedimentation/erosion control measures may, from time to time, prove inadequate.
398 Therefore, it shall also be a violation of this ordinance to fail to install additional
399 sedimentation/erosion control measures upon observing, or being notified, that approved and
400 installed sedimentation/erosion control measures are insufficient.
- 401 7. Erosion and sedimentation control measures, structures, and devices shall be planned,
402 designed, and constructed to provide protection from the calculated maximum peak rate of
403 runoff from a ten-year storm.
- 404 8. On-site areas that are subject to severe erosion, and off-site areas that are especially
405 vulnerable to damage from erosion and/or sedimentation, shall be identified and receive
406 special attention.
- 407 9. All land-disturbing activities shall be planned and conducted to limit exposure to the shortest
408 feasible time.
- 409 10. Exposed slopes shall be planted or otherwise provided with ground cover, devices, or
410 structures sufficient to restrain erosion within 30 calendar days after completion of any phase
411 of grading.

-
11. All uncovered areas shall be provided with protective cover unless the administrator has granted an extension of time, for good cause shown, upon written request of the property owner and developer. This cover shall be planted within 15 working days (exclusive of days where seedbed preparation is not possible due to weather as determined by the administrator) or 90 days following completion of any phase of grading, whichever period is shorter. Ground cover is not required on cleared land forming the future basin of a planned reservoir.
 12. Land disturbance shall not be permitted within surface water protection areas, except as permitted within this chapter.

C. *Duties of the administrator:*

1. The administrator shall require a copy of a North Carolina Department of Environmental Quality approved sedimentation and erosion control plan prior to the issuance of site plan approval for any project proposing to disturb one acre or more of land.
2. The administrator shall, from time to time, inspect areas of land disturbance for compliance with this section and shall take necessary action to remedy violations.
3. Upon observation of any violation of this section, the administrator shall notify the property owner and developer of such violation and the need to remedy it. If the property owner and developer fail to take immediate and appropriate action to remedy the violation, the administrator shall take action to remedy the violation in accordance with the procedures set forth herein. Furthermore, the administrator shall notify the appropriate office of the North Carolina Department of Environmental Quality of a potential violation of the North Carolina Sedimentation Pollution Control Act of 1973

13.5. Street design.

A. *Streets required:*

1. All new development shall abut a public street as required in Chapter 4 of this ordinance.
2. New development and substantial improvements to existing development with frontages on existing public streets shall be required to upgrade all their frontages to meet the standards of this chapter.
3. New development without frontages upon a public street shall, in all cases, extend and connect to a public street. Public street extensions and improvements required for new development, including those beyond the development boundary, are the sole responsibility of the developer. Such improvements must be provided in accordance with the requirements of the Chapter 62 of Brevard City Code and this ordinance. This section shall apply to all subdivisions, the development of which is subject to the control of the city, both inside and outside the city limits.
4. Streets shall be installed by the developer and dedicated to the city prior to the approval of any final subdivision plat or development plan unless a performance guarantee is provided to the administrator in accordance with City Code, this ordinance, and procedures established by the administrator. Streets shall be installed by the developer and dedicated to the city prior to the issuance of any certificates of occupancy for any building within that phase or on that street, as applicable to the particular development.
5. City streets shall be built to the minimum specifications of this chapter and Chapter 62 of Brevard City Code, and shall comply with all standards and specifications of the public works director. New streets in the ETJ shall meet all standards and requirements of the North Carolina Department of Transportation.

- B. *Streets to connect:* Streets shall interconnect within a development and with adjoining development in accordance with Chapter 8 and 10 of this ordinance. Culs-de-sac are permitted only where topographic conditions and/or exterior lot line configurations offer no practical alternatives for connection or

through traffic. Street stubs shall be provided with development adjacent to open land to provide for future connections at the discretion of the administrator. Streets shall be planned with due regard to the designated corridors shown on adopted plans and policies of the city or Transylvania County.

C. *Pedestrian and bicycle infrastructure:* Pedestrian and bicycle infrastructure shall be required as set forth within this chapter and conformance with adopted plans and policies of the city or Transylvania County.

D. *Topographic considerations:* Wherever possible, street locations should account for difficult topographical conditions, paralleling excessive contours to avoid excessive cuts and fills and the destruction of significant trees and vegetation outside of street-rights-of way on adjacent lands.E.

Infrastructure in steep slope areas: Infrastructure shall be installed in steep slope areas in accordance with the provisions of this chapter and any other applicable provisions in Section 6.6.

F. *Private streets and reserve strips:* There shall be no private streets or reserve strips platted in any subdivision except as provided for in Chapter 4 of this ordinance.

G. *On-street parking:*

1. On-street parking may be required by the administrator.

2. When required, all on-street parking provided shall be parallel. Curb or angle parking is permitted upon approval of the administrator when the fronting buildings are more than 22 feet in height to provide spatial definition and when the posted speed limit is less than 25 mph.

3. When required, minimum right-of-way widths shall be modified to account for on street parking.

H. *Traffic calming devices:* The use of approved traffic calming measures is encouraged as alternatives to conventional traffic control measures on Neighborhood Streets and within circulation areas of commercial and mixed-use developments.

I. *Flood elevations:* No street in an area subject to flooding shall be approved if it is more than one foot below the elevation of the 100-year flood. The administrator may require, where necessary, profiles and elevations of streets for areas subject to flooding. Fill may be used for streets in accordance with Chapter 34 of Brevard City Code. Drainage openings shall be so designed as to not restrict the flow of water and unduly increase flood heights.

J. *Storm drainage:* Stormwater shall not be discharged into any stream and shall be retained and treated accordance with Chapter 6 of this ordinance, except that streets and related retention/treatment infrastructure shall be designed to accommodate a 25-year, 24-hour storm drainage standard.

K. *Street names:* Streets shall be named and property addressing assigned in accordance with Brevard City Code, Chapter 62, Streets, Sidewalks and Other Public Ways, Article VII, Property Addressing and Road Naming. The administrator shall require evidence that road names and property addresses have been approved and assigned by the Transylvania County Property Addressing Coordinator prior to approving any development.

L. *Blocks:*

1. The lengths, widths, and shapes of blocks shall be determined with due regard to:

a. The provision of adequate building sites suitable to the special needs of the type of use contemplated, and adequate public open spaces accessible and visible to residents.

b. District requirements and design criteria.

c. Needs of non-vehicular and vehicular traffic circulation and traffic control and safety.

d. Opportunities and constraints of topography, with convenient access to important physical and topographical features such as lakes and rivers, significant areas of trees and other natural features, and areas of high ground offering scenic views.

2. Blocks shall not be less than 200 feet nor more than 660 feet ($\frac{1}{8}$ -mile), as measured from edge of right-of-way, unless site and topography or other special circumstances are present as determined

by the administrator. Where deemed necessary by the administrator, a pedestrian crosswalk of at least ten feet in width may be required.

3. Blocks shall have sufficient width to allow two tiers of lots of minimum depth except where single tier lots are required to separate residential development from another type of use, or when abutting a perennial stream or lake.

M. *Landscaping:*

1. Streets shall be landscaped with street trees. Commercial streets shall have trees which compliment the face of the buildings and which shade the sidewalk. Residential streets shall provide for an appropriate canopy, which shades both the street and sidewalk, and serves as a visual buffer between the street and the home.
2. All street trees shall be installed in accordance with Chapter 8 of this ordinance. Large canopy trees shall be planted in a planting strip at a minimum average distance of 40 feet on-center.
3. The minimum width of all planting strips shall be six feet. For large canopy trees such as Willow Oaks and Red Maples, a minimum of eight foot planting strip is suggested. Refer to Chapter 8 of this ordinance for additional information on landscaping.

N. *Street markers and traffic control signs:* Street markers and traffic control signs shall be required and posted in accordance with city standards and the Manual of Uniform Traffic Control Devices. Such infrastructure shall be installed by the developer prior to the issuance of any Certificates of Occupancy for any building on that street.

O. *Pedestrian and bicycle infrastructure:* Sidewalks, multi-use paths, or other pedestrian/bicycle infrastructure shall be constructed in accordance with the following requirements:

1. In determining the type of pedestrian/bicycle infrastructure that shall be required the Administrator shall refer to any adopted plan or policy of the city for guidance. Such plans or policies include but are not limited to: *City of Brevard Comprehensive Transportation Plan, City of Brevard Comprehensive Pedestrian Plan, City of Brevard Street Schedule, City of Brevard Comprehensive Land Use Plan, City of Brevard Recreation Plan*, other master plans and small area plans, and other plans and policies.
2. Sidewalks, multi-use paths, and other pedestrian and bicycle improvements shall be installed by the developer and dedicated to the city prior to the approval of any final subdivision plat, or issuance of final zoning approval or certificate of occupancy for any development plan. Pedestrian and/or bicycle infrastructure shall be constructed within the street right-of-way. The approving authority shall require the dedication of additional street right-of-way or a pedestrian easement when sufficient right-of-way does not exist to comply with this requirement. The approving authority may accept the dedication of additional right-of-way or a pedestrian easement in order to accommodate alternative routes and designs that do not follow streets.
3. Streets shall be bordered by pedestrian/bicycle infrastructure on both sides. Exceptions to this requirement and modifications to the design of pedestrian/bicycle infrastructure may be granted by the TRC for developments in steep slope areas and where warranted by environmental or topographic conditions, or where this requirement would serve no useful purpose.
4. Without exception, pedestrian/bicycle infrastructure shall be required along all new public and private streets within new subdivisions or developments, and within new phases of existing subdivisions and any other form of development.
5. Without exception, pedestrian/bicycle infrastructure shall be required along existing streets within or abutting new subdivisions and any other form of development (except subdivisions in GR districts establishing less than eight dwelling units); or along existing streets within or abutting any form of existing development undergoing substantial improvement (except single-family and duplex residential structures in GR districts).

6. Pedestrian/bicycle infrastructure shall be required along the same side of the street upon which the development fronts, except that when a development project is located on both sides of the same street the approving authority may require that infrastructure be installed on both sides of the street.
7. When site characteristics and/or traffic patterns are such that the construction of pedestrian/bicycle infrastructure in accordance with this section would be a hardship and would not result in useful pedestrian walkways, the administrator, upon recommendation from the TRC may allow the applicant to pay the designated cost of constructing such infrastructure into the city sidewalk fund in lieu of requiring construction of the infrastructure. In determining whether to accept a fee in lieu of construction of infrastructure, the administrator shall refer to any adopted plan or policy of the City for guidance. Such plans or policies include but are not limited to: *City of Brevard Comprehensive Transportation Plan, City of Brevard Comprehensive Pedestrian Plan, City of Brevard Street Schedule, City of Brevard Comprehensive Land Use Plan, City of Brevard Recreation Plan*, other master plans and small area plans, and other plans and policies.
8. The administrator may accept a performance guarantee for the construction of sidewalks on behalf of the city in situations where no other public infrastructure is proposed in accordance with Chapter 16 of this ordinance.
9. Multi-use paths and other infrastructure:
- Multi-use paths, and other pedestrian and bicycle infrastructure shall be provided instead of or in addition to sidewalks wherever called for on an adopted plan or policy of the city. Such plans or policies include but are not limited to: *City of Brevard Comprehensive Transportation Plan, City of Brevard Comprehensive Pedestrian Plan, City of Brevard Street Schedule, City of Brevard Comprehensive Land Use Plan, City of Brevard Recreation Plan*, other master plans and small area plans, and other plans and policies.
 - When a multi-use path is required in an area not adjacent to a public or private street, then such facility shall be credited towards the satisfaction of the open space requirements as set forth in Chapter 7 of this ordinance.
 - All required multi-use paths shall be dedicated to the City of Brevard by means of right-of-way or pedestrian easement.
 - On-street bicycle lanes shall be required when called for upon an adopted plan or policy of the city.
10. Pedestrian and bicycle improvements shall be as follows:

Zoning District	Facility Width	
	City Streets	NCDOT Streets*
GR	5 feet	5 feet
RMX, NMX, CMX, DMX, GI, IC	5 feet	8 feet
Public Streets	City Streets Required; Dedication to City Required	NCDOT Streets Required
Street Rights-of-Way	Required; Dedication to City Required	Required; Dedication to NCDOT Required
Multi-Use Path (where required)	10 feet	10 feet
On-Street Bike Lane (where required)	5 feet	5 feet

*Sidewalks are not required along alleys and commercial service streets except when required as a condition of a Conditional Zoning District, Group Development, or special use permit.

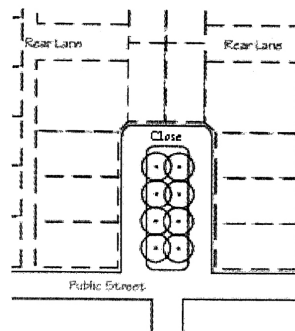
11. All pedestrian/bicycle infrastructure shall comply with the minimum requirements for handicapped accessibility in compliance with the North Carolina Accessibility Code or other federal, state, or local regulations. During the construction of pedestrian/bicycle infrastructure,

whether new or replacement, handicapped ramps shall be placed in the sidewalk where it intersects with streets and other pedestrian and vehicular travel ways.

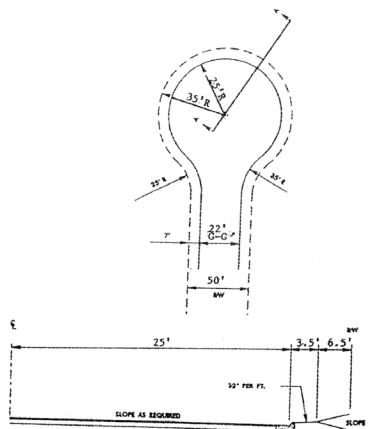
12. All sidewalks shall be made of 4,000 PSI concrete with a minimum depth of four inches, except that street and driveway crossings shall be a minimum of six inches in depth. Bike lanes and multi-use paths shall be made of asphalt, designed according to the North Carolina Bicycle Planning and Design Guidelines published by the NCDOT and shall include all appropriate signage and pavement markings. Alternative materials and designs may be approved by the TRC in consultation with the public works director.

- P. *Culs-de-sac and closes.* Where practical, a close (see graphic, below) shall be used in place of a cul-de-sac. Culs-de-sac and closes shall be designed to facilitate the turning radius of emergency vehicles.

Close



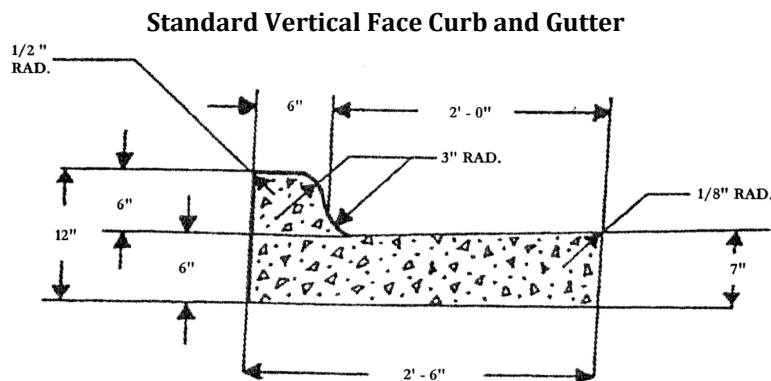
Cul-de-sac with Curb and Gutter Section



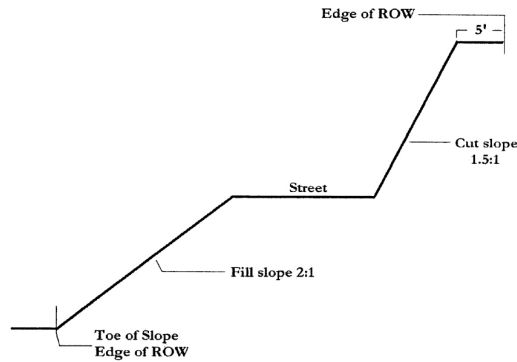
- Q. *Intersections:*

1. All streets shall intersect at right angles as nearly as possible and no street shall intersect at less than 60 degrees.
2. Where practical, intersections should be aligned to create four-way intersections.
3. Off-set intersections for local streets and neighborhood collectors should be at least 125 feet apart measured from centerline to centerline. A larger spacing in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards may be required for all other streets.

4. Property lines at street intersections shall be rounded with a minimum radius of 20 feet. At an angle of intersection of less than 90 degrees, a greater radius may be required.
 5. Proper sight lines shall be maintained at all intersections of streets to permit adequate sight distance. Where the posted speed limit is less than 20 mph, the intersection sight distance may be reduced to 105 feet.
 6. Bulb-outs are discouraged on narrow streets (less than 30 feet face-of-curb to face-of-curb) but encouraged on wider streets.
 7. Property lines at street intersections shall be rounded with a minimum radius of 20 feet. Where a street intersects a state highway, the design standards of the state department of transportation shall apply.
- R. *Curb radii:* Curb radii shall be designed to reduce pedestrian crossing times along all streets requiring sidewalks. In general, curb radii should not exceed 20 feet except along NCDOT-maintained roads.
- S. *Curbs and drainage for city streets:* The following requirements shall apply to streets within the city. Streets within the ETJ shall meet all applicable requirements of the North Carolina Department of Transportation.



1. Curb and gutter shall be required on all new residential and commercial streets constructed within the city.
2. Standard vertical face curb and gutter within the city shall be two-foot, six-inch concrete with a height of six inches (see graphic, above). All curbing shall be properly backfilled.
3. Exceptions to this requirement may be made by the administrator subject to circumstances in the area under study. Such circumstances shall relate to the topography of the area, future maintainability of the streets, or other factors deemed relevant by the administrator.
4. Vertical face curbing is required along all streets with on-street parking and around all required landscaping areas and parking lots.
5. All drainage gates must be safe for bicyclists. Bicycle-safe drainage grates are types E, F, and G as approved by the NCDOT.
6. City street culvert dimensions shall be subject to the requirements of the public works director.
7. The right-of-way shall extend from a point five feet outward from the top of the bank of any cut slope to the toe of any fill slope. Maximum slope of any cut slope shall be at a ratio of no greater than 1.5 feet of horizontal run to one foot of vertical rise (1.5:1 slope), and the maximum slope of any fill slope shall be at a ratio of no greater than two feet of horizontal run to one foot of vertical rise (2:1 slope).



- T. *Centerline radius:* A 90-foot minimum centerline radius shall be used for local streets, parkside drives, and minor streets between reverse curves though they may be reduced to 45 feet for design speeds less than 20 mph. All other streets shall be in accordance with AASHTO standards.
- U. *Street lights:* Street lights shall be installed by the developer on all streets in accordance with Chapter 12 of this ordinance.
- V. *Posted speed limits:* All streets shall be posted in accordance with the Manual of Uniform Traffic Control Devices and the City of Brevard Traffic Schedule.
- W. *Street grades:* The maximum permissible street grade shall be 18 percent.
- X. *Design standards:* Design standards not specifically addressed in this ordinance must comply with the minimum design and construction criteria of the N.C. Department of Transportation.
- Y. *Minimum right-of-way:* The administrator shall determine right-of-way widths based upon the characteristics of the proposed development. However, unless otherwise specified, the minimum right-of-way for all new streets within the city shall be 50 feet, and shall satisfy minimum requirements of the North Carolina Department of Transportation in the ETJ.

13.7. Reserved

17.3. Environmental survey.

Identification of existing trees, understory vegetation, known endangered species, habitats, wetlands, perennial streams, floodplains, and topographical features on a site prior to the advanced preparation of development plans enables the reasonable and practical planned preservation of existing and environmentally sensitive areas.

This requirement provides the city and the applicant the ability to evaluate the proposed development in order to preserve vegetation, to improve the appearance of the development proposed and to encourage the use of the existing forest and tree canopy, specimen trees, and significant vegetation to satisfy the requirements of this chapter.

An environmental survey is intended to identify forest stands or trees of a uniform size and species; specimen trees of varying sizes and species, particularly free standing or open-grown or field grown trees; a distinctive tree line or forest edge; existing watercourses; and previously documented endangered species habitats.

- A. The use of digital geographic data obtained from the City of Brevard, Transylvania County, or the State of North Carolina is deemed to be sufficient for the sketch plan and master plan phases of submittal requirements.
- B. For construction documents, the environmental survey requirements are as follows

1. Provide a general written description of the significant vegetation. Significant vegetation is defined as being 12 inches in diameter at breast height (DBH) or greater and native understory species two inches or greater (e.g. dogwood, holly, redbud, etc.), including tree species and uniform the size and height of stands of homogeneous trees including the typical tree species composition of the forest stand, typical tree size, and general health and vigor of the stand and specimen trees.
 2. Denote the dripline of any existing forest stand, as measured between existing tree trunks six inches or greater located at the edge of the stand.
 3. Identify all free standing, open grown or field-grown specimen trees located on the site 12 inches or greater DBH.
 4. Show all other important natural features influencing site design such as the location of wetlands, rock outcroppings, site topography at five-foot contour intervals, slopes steeper than 35 percent, and perennial streams, natural drainage ways, lakes, and other water bodies, and floodplains indicating both the flood fringe and the flood way. USGS and FEMA data shall be used to determine the location of perennial streams.
 5. Denote the presence of any known endangered species' habitats indicated in any surveys completed by Transylvania County, the State of North Carolina, or other governmental agency.
 6. Show all buffer delineations as follows:
 - i. Buffer boundaries including all undisturbed buffer zones must be clearly delineated on all development plans for approval by the city, on all construction documents, including grading and clearing plans, erosion and sediment control plans, and site plans.
 - ii. Buffer boundaries for all required undisturbed buffer zones must be clearly delineated on-site prior to any land disturbing activities. Where existing trees are to be preserved in a buffer zone, limits of grading shall maintain a minimum 20-foot separation from the base of each tree on the upland side of the buffer or to the dripline.
 - iii. Buffer boundaries including all buffer zones as well as all buffer requirements must be specified on the record plat, on individual deeds, and in property association documents for lands held in common.
- C. This requirement can be waived by the administrator if the site lacks qualifying natural features.

17.4. Sketch plan requirements.

In addition to information on the environmental survey, the sketch plan shall show in simple sketch form the proposed layout of streets, lots, buildings, public open spaces and other features in relation to existing conditions based upon the size of the tract proposed for development. All plans shall be submitted at a scale not less than one inch = 50 feet unless otherwise authorized by the administrator. It shall also include the following information:

- A. A sketch vicinity map, including north arrow, showing the location of any proposed building(s) or subdivision in relation to neighboring tracts, subdivisions, roads, and waterways.
- B. The name, address, and telephone number of the property owner.
- C. The name of the proposed development project.
- D. The boundary lines of the property.
- E. The total acreage.

- 725 F. The existing and proposed land uses and the existing land uses of adjacent properties.
- 726 G. The existing topographic conditions of the property including contours not exceeding five-foot
727 intervals. Transylvania County, City of Brevard, or State of North Carolina topographic information
728 may be used to fulfill this requirement.
- 729 H. The location, names, and private and recorded right-of-way widths of any existing streets on or
730 within 300 feet of the land to be subdivided.
- 731 I. Lots of adjacent developed or platted properties.
- 732 J. Zoning classification of the land and adjacent properties.
- 733 K. Illustrative building elevations denoting general design elements and materials.
- 734 L. Watershed classification, if any.
- 735
- 736 N. Floodway, non-encroachment, and surface water protection area delineation.
- 737 O. Floodplain delineation.

738 **17.5. Master plan requirements.**

739 The master plan shall be drawn to the following specifications and must contain or be accompanied by
740 the information listed below. This section defines both preliminary and final master plans. A preliminary
741 master plan may only be submitted as part of an application for a conditional zoning district. All plans shall be
742 submitted at a scale not less than one inch = 50 feet unless otherwise authorized by the administrator.

- 743 A. Processing or review of a preliminary or final master plan may not proceed without all of the
744 following information:
- 745 1. The boundary, as determined by survey, of the area to be developed with all bearings and
746 distances shown and the location within the area, or contiguous to it, of any existing streets,
747 railroad lines, perennial streams, wetlands, easements or other significant features of the
748 tract.
- 749 2. Scale denoted both graphically and numerically with north arrow.
- 750 3. A vicinity map at a scale no smaller than one inch equals 1,200 feet showing the location of
751 the subdivision with respect to adjacent streets and properties.
- 752 4. The proposed name of the development, street names, the owner's name and address, the
753 names of adjoining subdivisions or property owners, the name of the city, county, and state
754 in which the development is located, the date of plan preparation, and the zoning
755 classification of the tract to be developed, and of adjoining properties.
- 756 5. Corporate limits and extraterritorial jurisdiction boundaries (where applicable).
- 757 6. A timetable for estimated project completion for each phase proposed.
- 758 7. Original contours at intervals of not greater than five feet for the entire area to be subdivided
759 or developed and extending into adjoining property for a distance of 300 feet at all points
760 where street rights-of-way connect to the adjoining property and 50 feet at all other points
761 of common project boundaries. Transylvania County or City of Brevard digital topography
762 may be used to satisfy this requirement but should be field-verified to ensure accuracy. This
763 requirement may be waived for developments smaller than one acre or where insufficient
764 topographic changes warrant such information.
- 765 8. The location of any building restriction areas (i.e. flood hazard areas, buffer locations,
766 watershed protection districts, and/or jurisdictional wetlands), where applicable.

- 767 9. Site calculations shall include total acreage of tract, acreage in parks and other non-
768 residential uses, total number and acreage of parcels, and the total number of housing units.
- 769 10. The following statement shall be placed upon all final master plan documents, as applicable:
770 "Areas delineated upon this plat or plan as a protection area or Special Flood Hazard Areas is
771 subject to limitations upon development as set forth Chapter 34 of Brevard City Code, and
772 any development, disturbance, or encroachment is prohibited except in accordance
773 therewith."
- 774 B. Requirements for preliminary master plans. A preliminary master plan may only be submitted as
775 part of an application for a conditional zoning district. A preliminary master plan may be more
776 conceptual in nature than a final master plan, and shall be sufficient to demonstrate deviations
777 from the base zoning district and the scope of the project.
- 778 1. At a minimum, a preliminary master plan shall show the conditions both requested and
779 offered that deviate from the base zoning district.
- 780 2. A preliminary master plan may divide the district into land use areas and specify proposed
781 uses and other development standards which shall apply to such land use area. The
782 preliminary master plan may also depict transition zones between any such land use areas
783 which shall permit deferring the determination of the precise boundaries between land use
784 areas until final master plan review.
- 785 3. Additional submittal requirements for the preliminary master plan shall be determined by
786 the administrator in the pre-application meeting or during review. The approving authority
787 may require additional submittals as deemed necessary due to the particulars of the project.
788 A preliminary master plan may include the following information, as applicable:
- 789 (a) The location of proposed buildings, parking and loading areas, streets, alleys,
790 easements, lots, parks or other open spaces, site reservations (i.e. school sites),
791 property lines and building setback lines with street dimensions, and tentative lot
792 dimensions.
- 793 (b) The traffic and circulation system demonstrating a safe and adequate on-site
794 transportation system that addresses vehicular, bicycle, transit and pedestrian
795 circulation. The on-site transportation system shall be integrated with the off-site
796 transportation circulation system of the city.
- 797 (c) The proposed limits of construction for all proposed development activity, including all
798 required protected areas and open space.
- 799 (d) Landscaping plan and/or vegetation preservation plan in accordance with Section 17.9.
- 800 (e) Lighting plan in accordance with Section 17.10.
- 801 (f) Architectural plans in accordance with Section 17.11.
- 802 (g) Traffic impact analysis (if required) in accordance with Section 17.12.
- 803 (h) Stormwater management concept plan in accordance with Section 17.13.
- 804 (i) Conceptual utilities plan. Conceptual plans for utilities to serve the development,
805 including sanitary sewers, storm sewers and water lines.
- 806 (j) Environmental impact statement, pursuant to Article 113A of the North Carolina
807 General Statutes, if: the development exceeds two acres in area, and; if the BPB deems
808 it necessary due to the nature of the land or peculiarities in the proposed design.
- 809 (k) Development permit and certification application with supporting documentation as
810 required by the flood hazard prevention requirements of Chapter 6 of this ordinance.
- 811 C. Requirements for final master plans.

1. A final master plan shall include all of the following information, as applicable:
 - (a) The location of proposed buildings, parking and loading areas, streets, alleys, easements, lots, parks or other open spaces, site reservations (i.e. school sites), property lines and building setback lines with street dimensions, and tentative lot dimensions.
 - (b) The transportation and circulation system showing typical cross-sections of proposed streets. Where a proposed street is an extension of an existing street, the profile of the street shall include 300 feet of the existing roadway, with a cross section of the existing street. Where a proposed street within the development abuts a tract of land that adjoins the development and where said street may be expected to extend into said adjoining tract of land, the profile shall be extended to include 300 feet of the said adjoining tract.
 - (c) The proposed limits of construction for all proposed development activity, including all required protected areas and open space.
2. Additional submittal requirements for the final master plan shall be determined by the administrator in the pre-application meeting or during review. The approving authority may require additional submittals as deemed necessary due to the particulars of the project. A final master plan may include the following information and supplemental plans, as applicable.
 - (a) Landscaping plan and/or vegetation preservation plan in accordance with Section 17.9.
 - (b) Lighting plan in accordance with Section 17.10.
 - (c) Architectural plans in accordance with Section 17.11.
 - (d) Traffic impact analysis (if required) in accordance with Section 17.12.
 - (e) Stormwater management concept plan in accordance with Section 17.13.
 - (f) Conceptual utilities plan. Conceptual plans for utilities to serve the development, including sanitary sewers, storm sewers and water lines.
 - (g) Environmental impact statement, pursuant to Article 113A of the North Carolina General Statutes, if: the development exceeds two acres in area, and; if the BPB deems it necessary due to the nature of the land or peculiarities in the proposed design.
 - (h) Development permit and certification application with supporting documentation as required by the flood hazard prevention requirements of Chapter 6 of this ordinance.

17.9. Landscape plan requirements.

- A. A landscaping plan and/or vegetation preservation plan shall be required prior to any site disturbance for:
 1. All non-residential uses;
 2. All multi-family uses in a residential district;
 3. Any development in steep slope areas, in accordance with Section 6.4; and
 4. Any other development where a landscaping plan and/or vegetation preservation plan is deemed necessary by the administrator due to the particulars of the project.
- B. The plan shall contain the following information:
 1. An accurate drawing of property boundaries.

2. A development summary including the total development acreage, proposed use(s), required parking and provided parking spaces, and total building square footage.
3. The location of proposed buildings, driveways, parking areas, required parking spaces, and traffic patterns.
4. The location of all overhead and underground utilities.
5. Name of the project, name and address of owner, name and address of engineer, scale, date, legend, and north arrow.
6. General location, type and quantity of existing plant materials.
7. Existing plant materials and areas to be left in natural state.
8. Methods and details for protecting the critical root zone (CRZ) of existing plant materials during construction.
9. Locations, size and labels for all proposed plants.
10. Plant lists with common name, botanical name, quantity, and spacing and size of all proposed landscape material at the time of planting.
11. Location and description of other landscape improvements, such as earth berms, walls, fences, screens, sculptures, fountains, lights, courtyards, walks or paved areas. Berms shall have topo.
12. Planting and installation details as necessary to ensure conformance with all required standards as referenced in Chapter 9.

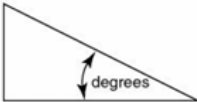
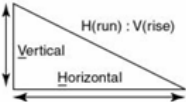
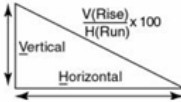
19.3. Definitions.

Cut slope: The exposed ground surface resulting from excavation of material.

Fill slope: The exposed ground surface resulting from deposition of material.

Grade: See Slope.

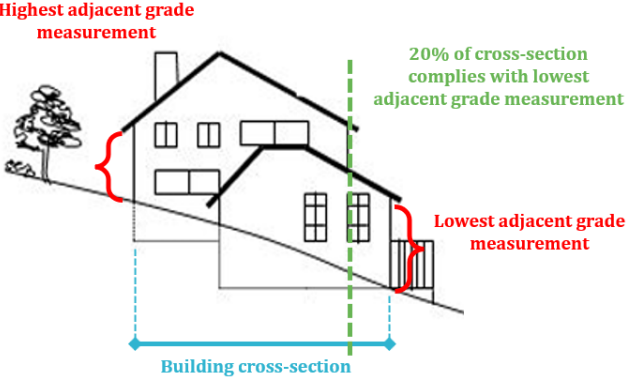
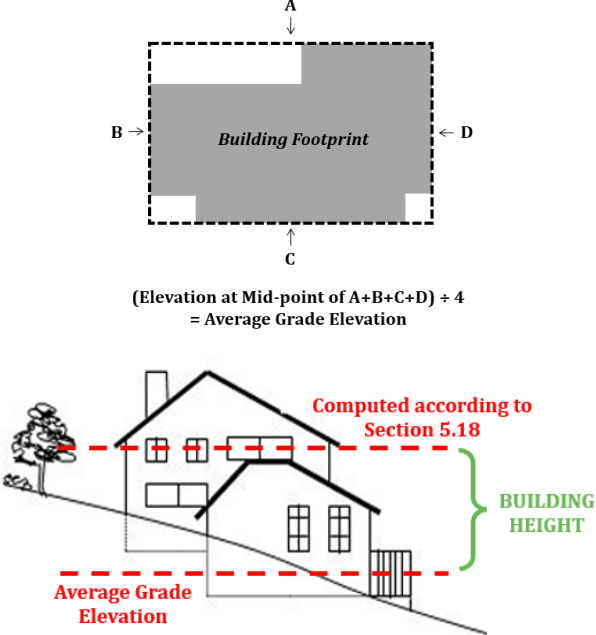
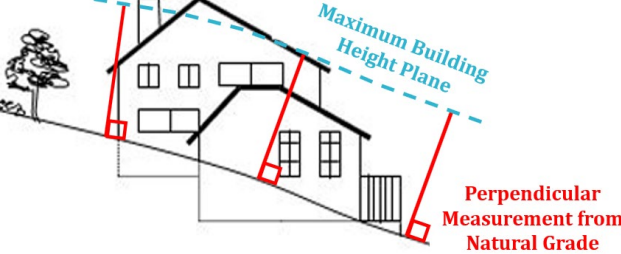
Slope: The extent to which a land form deviates from the perfectly horizontal as expressed in percent, degree, ratio. The following table explains the conversion between these separate methods of expressing the extent of slope.

Slope Measurements		
Degrees	Ratio	Percent
		
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%

Slope, moderately steep: Areas at or above 2,250 feet in elevation above mean sea level and with an average slope between 25% and 34%.

883 *Slope, steep:* Areas at or above 2,250 feet in elevation above mean sea level and with an average slope of
884 35% or greater.
885

BUILDING HEIGHT AND BULK OPTIONS

OPTION	REGULATION	ILLUSTRATION
Highest and Lowest Adjacent Grade	The maximum height of principal structures in steep slope areas shall be limited to 15 feet from the highest adjacent grade and 35 feet on the lowest adjacent grade. Building height shall be measured in accordance with Section 5.18 using the highest adjacent grade and the lowest adjacent grade, respectively, as the reference elevations. The property owner may utilize step-back or terraced building approach, provided at least 20% of the structure's footprint conforms to the height measured from the lowest adjacent grade.	 Highest adjacent grade measurement 20% of cross-section complies with lowest adjacent grade measurement Lowest adjacent grade measurement Building cross-section
Average Grade	The maximum height of principal structures in steep slope areas shall be limited to 25 feet from the average grade elevation. Building height shall be measured in accordance with Section 5.18 using the average grade elevation as the reference elevation. The average grade shall be calculated by drawing the smallest rectangle possible that encompasses the entire building area and averaging the elevations at the midpoint of each side of the rectangle. The property owner is encouraged to utilize step-back or terraced building approach to reduce the visual bulk of the structure.	 A B → ← D C Building Footprint (Elevation at Mid-point of A+B+C+D) ÷ 4 = Average Grade Elevation Computed according to Section 5.18 Average Grade Elevation BUILDING HEIGHT
Perpendicular to Natural Grade	The maximum height of principal structures in steep slope areas shall be limited to 25 feet measured perpendicular from the natural grade to the parapet or roof line of a flat roof, the eave of a pitched roof, or the deck line of a mansard roof. The property owner is encouraged to utilize step-back or terraced building approach to reduce the visual bulk of the structure.	 Maximum Building Height Plane Perpendicular Measurement from Natural Grade



Agenda & Objectives

Agenda

- Background & Purpose
- Understanding the Current Ordinance
- Staff Goals
- Key Questions & Discussion
- Next Steps

Outcomes

- Identify Priorities for Ordinance
- Provide direction for Staff in Drafting



Image Source: Romantic Asheville

City of Brevard Planning Department

Previous Efforts

- Steep Slopes have been discussed numerous times in the past five years, especially as infill development becomes more of a priority
 - Planning Board – 4 times
 - City Council – 6 times

Fall 2022 Proposed Text Amendment

- Proposed Changes
 - Changes to the review process
 - Added stipulation that measurement should be for area of disturbance
 - Removed density restrictions for Conditional Zoning Districts
 - ***Did not address the calculation method itself or the application***
- Planning Board unanimously recommended approval
- City Council wanted to see the fully revised section before making a decision



City of Brevard Planning Department

Purpose

Development regulations around steep slopes and hillside protections generally have the following objectives:

1. Protecting the natural land conditions and respecting existing topography
2. Preventing inappropriate and/or unsafe development
3. Preserving the aesthetic and scenic qualities
4. Ensuring the public health, safety, and general welfare

*Ultimately, this is about **safety** and **aesthetics** that provide **economic value** and promote **quality of life** in Brevard*



City of Brevard Planning Department

Current Ordinances

Purpose: “promote the public health, safety and welfare... and protect our existing environmental resources... which are of economic value to the city and its citizens and make Brevard a desirable place to live and visit” (UDO 6.2).

Challenges in assessing the topographical land use conditions

- Steep Slope Area requirements are overly simplified and do not address the purpose as they open the door for significant grading
- Nothing to protect visual resources, scenic vistas, and mountain ridges



Image Source: Explore Brevard

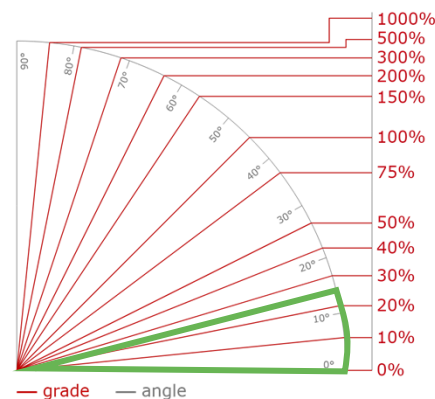


City of Brevard Planning Department

Steep Slope Ordinance

Current Regulations

- “Steep slope areas with an **average slope of 25 percent or greater** shall be delineated upon all final development plans and plats and shall be noted as protection areas for which **no development shall be permitted**. These areas shall be off-limits to all development or land disturbances of any kind whatsoever and **shall be maintained in a naturally vegetated state**, except that forest management in accordance with the provisions set forth in this ordinance may be permitted” (UDO 6.4.D.4)



City of Brevard Planning Department

Steep Slope Ordinance

Current Definition

- “Steep slope areas are defined as those areas with a slope of 15 percent or greater. Slope shall be determined by **measuring the change in height for every 100 feet of horizontal distance**. For example, a change in elevation of 15 feet over a horizontal distance of 100 feet equals a 15 percent slope. Alternatively, slope may be determined by means of **commonly accepted slope Geographic Information System modeling software** using commonly accepted topographical baseline data” (UDO 6.4.A)

????

No clear definition of the area being measured, so it could be manipulated and/or lead to the entire site being graded

“Commonly accepted” is vague and there is no way of ensuring consistency in the definition

There is no means for Staff to verify/confirm the assessment



City of Brevard Planning Department

Sedimentation and Erosion Ordinance

Current Regulations

- “The property owner shall at all times **comply with all requirements of the North Carolina Sedimentation Pollution Control Act of 1973**, as amended.”
- “All cut slopes, fill slopes, side slopes, road or driveway embankments, and any other sloping excavated area or land disturbance shall be stabilized at all times... [and] be maintained at a slope ratio of no greater than two feet of horizontal run to one foot of vertical rise (**2:1 slope [roughly 50%]**).”
- “**Exposed slopes shall be planted** or otherwise provided with ground cover, devices, or structures sufficient to restrain erosion.”
- “The administrator shall require a copy of a **North Carolina Department of Environmental Quality approved sedimentation and erosion control plan**... for any project proposing to disturb one acre or more of land.”



City of Brevard Planning Department

How does our current slope ordinance protect?

Lots that don't Pre-date UDO with 25% Slope or Greater

- **No development allowed**
- Minimal allowances may be allowed via conditional zoning district

Lots that don't Pre-date UDO with 15-24% Slope

- Administrators **may** impose conditions to ensure safe development
- Encouraged to be a conditional zoning district

Lots that Pre-date UDO, Regardless of Slope

- One principal structure permitted
- **No other regulations or protections**

Lots that "Pre-date the Ordinance" were created before

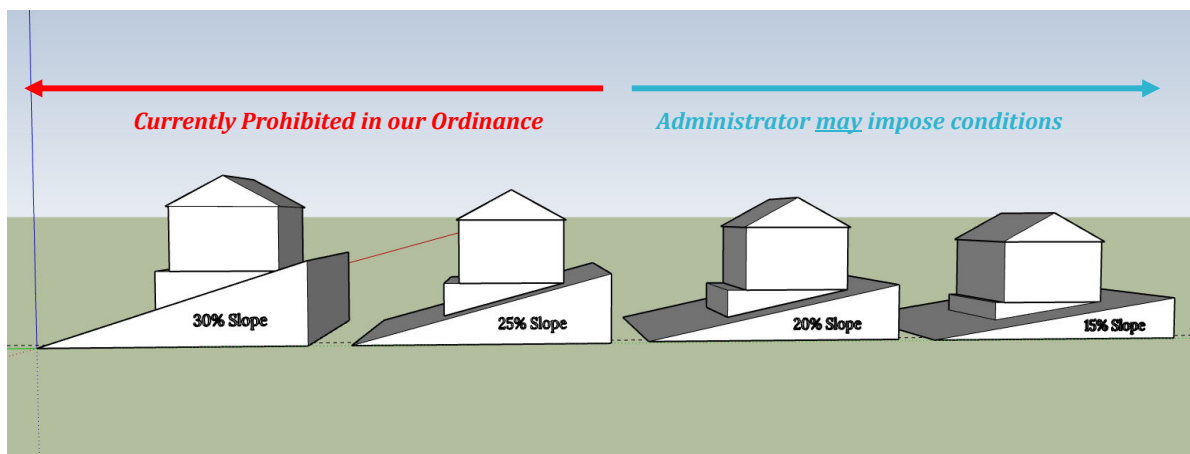
April 3, 2006

The only way for us to determine this is by searching historic deeds and plats for each individual parcel.

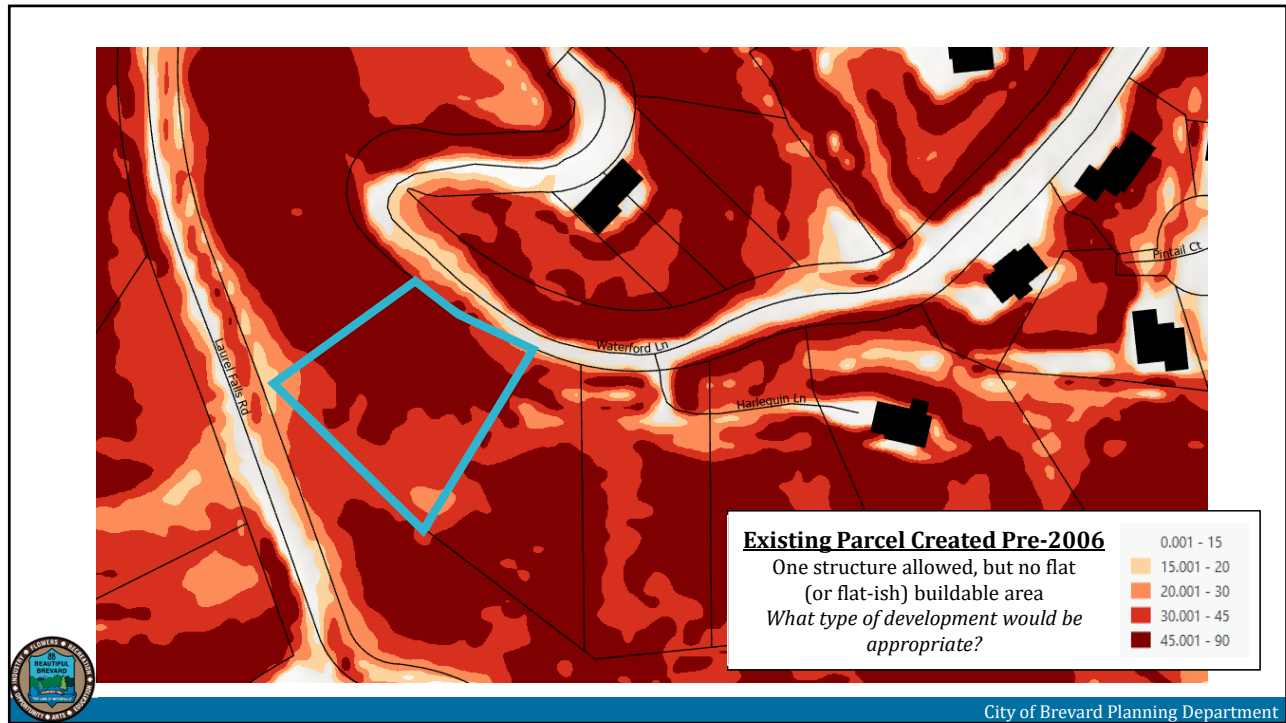


City of Brevard Planning Department

What does slope look like?



City of Brevard Planning Department



Staff's Goals & Objectives

The Steep Slope Ordinance Should:

- Accomplish the steep slope ordinance objectives
- Allow development *if* it is safe and doesn't diminish the community's scenic qualities and character
- Ensure development respects the natural form and does not lead to extensive grading and disturbance
- Ensure that all development on steep slopes are subject to regulations and protections
- Allow "reasonable use" of a property owner's land
- Be easy (or easier) to administer and enforce
- Be as clear and objective as possible
- Allow the administrator to impose protections in unique circumstances

Steep Slope Ordinance Objectives

1. Protect the natural land conditions and respecting existing topography
2. Prevent inappropriate and/or unsafe development
3. Preserve the aesthetic and scenic qualities
4. Ensure the public health, safety, and general welfare



Steep Slope Ordinance Topics

Discussion Questions

- **How do we balance protecting natural resources with the need for infill development?**
 - What are we currently regulating? Is it working?
 - What can we regulate under NC law?
 - How can we incentivize things we can't regulate?
- **What constitutes a "steep slope?"**
 - Where do we start regulating slopes? Does it vary by elevation?
 - Where do we have steep slopes in our jurisdiction? Are all of those (ditches, man-made slopes, etc.) worth protecting?
- **How do we determine if it is a "steep slope"?**
- **How do we determine if a development project is safe?**



Steep Slope Ordinance Objectives

1. Protect the natural land conditions and respecting existing topography
2. Prevent inappropriate and/or unsafe development
3. Preserve the aesthetic and scenic qualities
4. Ensure the public health, safety, and general welfare

City of Brevard Planning Department

How do we determine if it is a steep slope?

Proposed Options for Property Owners

- Slope (**S%**) is equal to the total length (**L**) of contour lines within parcel, multiplied by the contour interval (5ft or less) (**I**) of area, then multiplied by .0023, divided by the total area of the parcel (**A**).

$$S\% = \frac{.0023(I)(L)}{A}$$

- Analysis conducted and sealed by a professional surveyor, engineer, or landscape architect using recognized, industry-accepted method.

Proposed Process for Property Owners

- Look up and/or calculate slope and submit to Planning Department (see Buncombe County example)
- Property owners may choose to recalculate based on ordinance requirements (see Waynesville example)



Others that Use This Formula:

Asheville
Black Mountain
Buncombe County
Jackson County
Sylva
Waynesville
Weaverville

City of Brevard Planning Department

How do we determine if it is a steep slope?

Example: Buncombe County Slope Calculator (mapWNC)

- Ensures consistent methodology and analysis for all parcels
- Easy for property owners, developers, zoning administrators, etc. to use and understand
- Does not add additional expense to small projects where slope wouldn't be and issue

Find Slope for a Parcel

1. Use [SimpliCity](#) or [mapAsheville](#) to find the PIN of the parcel you are interested calculating slope for.

2. Enter the 10 or 15 digit PIN below and click Calculate.

To calculate the slope of multiple parcels enter a comma separated list PINs.

Jurisdiction: Asheville

Acres: 0.22000

Maximum Elevation: 2120

Percent Slope: 14.89

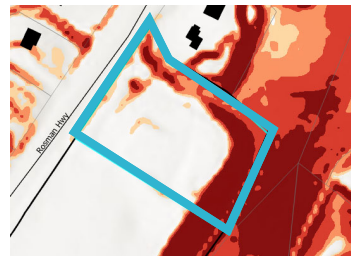


City of Brevard Planning Department

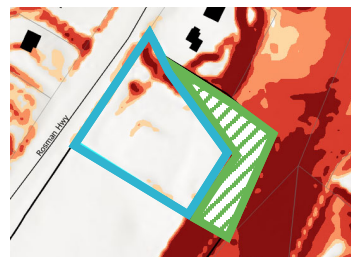
How do we determine if it is a steep slope?

Example: Waynesville Protections

- Property owners may remove **permanently protected areas** from their slope calculation
 - Permanent conservation easement,
 - Dedicated to the public for open space,
 - Protected as open space by restrictive covenants, or
 - Other means of permanently protecting in a natural state
- Incentivizes **permanent protection** of very steep slopes



Current Parcel
Average: 26%



If steep slope is
permanently
protected: <10%



City of Brevard Planning Department

How do we know if development is safe?

Challenge

- Planners are not experts in assessing the safety of developing on steep slopes
- We should rely on experts!

Geotechnical Analysis

- Subsurface/soil composition and stability assessment
- Recommendations for safe construction, grading, foundations, soil reinforcement, etc.

Other Cities Require Geotechnical Analysis at:

- Greater than 35% Slope
 - Asheville, Black Mountain, Buncombe County, & Sylva
- Greater than 40% Slope
 - Weaverville
- Greater than 50% Slope
 - Boone & Banner Elk



City of Brevard Planning Department

City / County	% Slope When Regs Start	Elevation Trigger?	Use Slope Formula?	Area Measured?	Prohibition ?	Scale
Brevard	15%	No	No	Not defined	Yes	15-24% - <u>May</u> impose conditions 25%+ - Prohibited
Asheville	15%	Yes	Yes	Not defined	No	Varies by slope and elevation
Black Mountain	25% (<1 acre) 16% (>1 acre) Any parcel 2,600ft+	Yes (some)	Yes	Parcel	No	16-25% - "Minimize impact" 25%+ - Regulated (varies)
Boone	30%	No	No	Parcel	No	30-49% - Regulated some (varies) 50%+ - Regulated more (varies)
Buncombe County	15%	Yes	Yes	Parcel	No	35% + - Regulated (varies)
Hendersonville	15%	No	No	Parcel	Yes	15-35% - Regulated (varies) 35%+ - Prohibited
Jackson County	35%	Somewhat, overlay trigger	Yes	Area of Disturbance	No	35% + - Regulated (varies)
Sylva	15%	No	Yes	Not defined	No	15-30% - Regulated some (varies) 30%+ - Regulated more (varies)
Waynesville	25%	Yes	Yes	Parcel	No	25% + - Regulated (varies)
Weaverville	15%	No	Yes	Parcel	No	15% + - Regulated



City of Brevard Planning Department

Parcel vs. Area of Disturbance

	Principle	Application	Process	Grading Extent	Vegetation Preservation
Parcel	Doesn't always protect what we want to protect (especially without elevation trigger)	Doesn't account for less steep portions of the lot that are not sensitive for development	Could be automatically calculated and property owners can look it up (see Asheville/Buncombe County)	Could regulate (very common)	Could regulate (very common)
Area of Disturbance	Allows "reasonable use" of a property owner's land	Allows development on less steep portions of the lot	Would need to be an additional step in the permitting process where staff determines the slope for them with GIS	Doesn't allow for regulations that limit grading extent because not disturbing the whole property	Doesn't allow for broad tree preservation because not disturbing the whole property (would need to be incentives and/or buffer regulations)



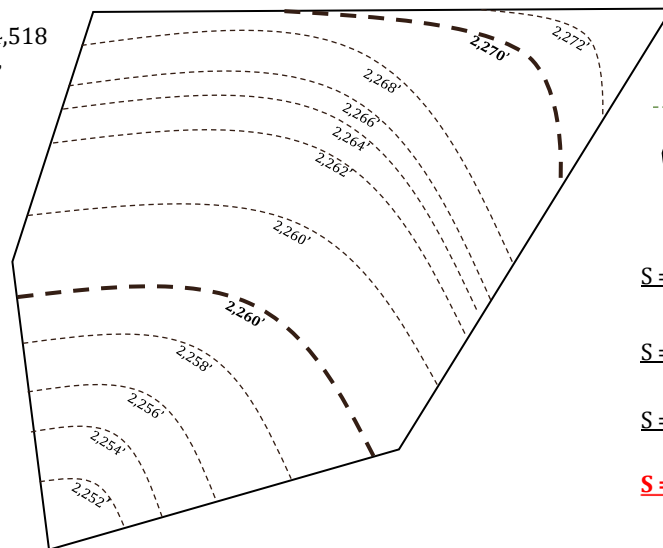
City of Brevard Planning Department

Slope Calculation Example

Contour Length – 14,518

Contour Interval – 2'

Area – 3 acres



$$S = \frac{(L \times i) .0023}{a}$$

--- Contour line
 Parcel

$$S = \frac{(14,518 \times 2) .0023}{3}$$

$$S = \frac{(29,036) .0023}{3}$$

$$S = \frac{66.78}{3}$$

$$S = 22.26$$

Not to Scale



City of Brevard Planning Department

What slopes do we want to protect?

- Mapping exercise



City of Brevard Planning Department

How do you develop on steep slopes?

Tiered, multistory structure that conforms to the natural landscape



Cut and fill the natural grade to create a flat surface for development



City of Brevard Planning Department

We can't regulate architectural standards for 1-2 unit homes, but we can encourage and incentivize!

Example: Sylva Regulations

- Reduced height and density for developments on steep slopes
- "Bonuses" offered for things like building colors / light reflectivity, vegetation preservation easements, clustering development on less steep portions of the lot, reduced amount of grading, etc.

Example: Jackson County Regulations

- "Applications for development authorization shall demonstrate compliance with the best practices set forth herein..."
- Includes a long list of best practices including grading, screening, building colors, clustering of buildings, vegetation, road placement, etc.
- *May be hard to enforce because isn't very objective*



City of Brevard Planning Department

Building Height

Current Building Height Measurement

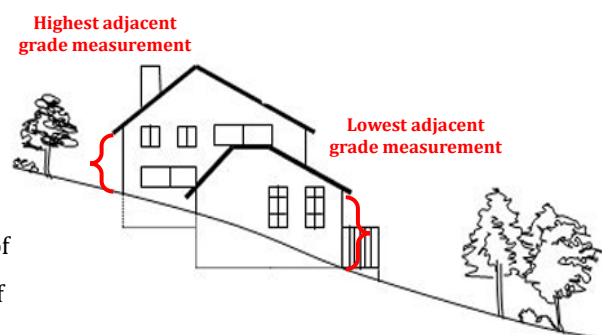
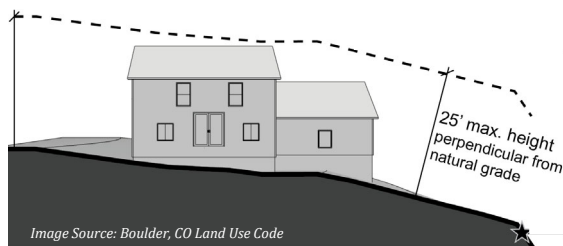
- 35 feet from *highest* adjacent grade

Steep Slopes Height Option #1

- (TBD) feet in height measured perpendicular from existing grade
 - Would this incentivize the type of buildings we want built?

Steep Slopes Height Option #2

- 35 feet from *lowest* adjacent grade AND (TBD) feet from *highest* adjacent grade
 - How do we regulate the tiers? Maybe 30% of the building footprint needs to be at each height? Do we regulate the center portion of the cross-section? If so, how?



City of Brevard Planning Department

Discussion: What protections are needed?

- Building height
- Bulk and massing
- Building placement
- Amount of site disturbance
- Land use
- Landscaping, screening, vegetation preservation, etc.
- Residential density
- Non-residential density (Floor-Area Ratio)
- Architecture (where applicable)



City of Brevard Planning Department

Next Steps

- Planning Board Work Session (Today, Feb 28th)
- Staff drafts new steep slope ordinance based on work session input
- Planning Board reviews steep slope ordinance



Image Source: David Oppenheimer, via Pixels.com



City of Brevard Planning Department

WESTERN NORTH CAROLINA STEEP SLOPE ORDINANCES

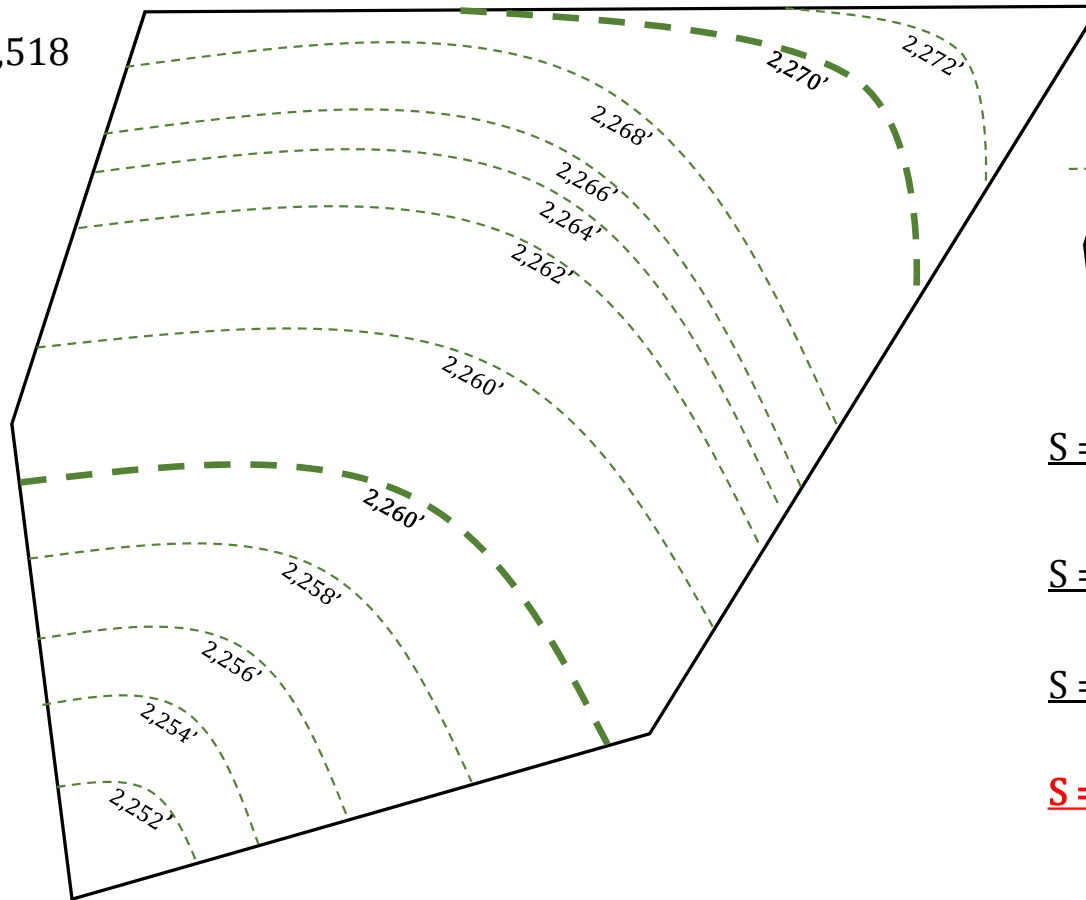
City / County	% Slope When Regs Start	Elevation Trigger?	Use Slope Formula?	Measurement Area?	Prohibition?	Scale	Geotechnical Analysis Required?
Brevard	15%	No	No	Not defined	Yes	15-24% - May impose conditions, no regulations 25%+ - Prohibited	None
Asheville	15%	Yes, 2,220 ft and 2,350 ft	Yes	Not defined	No	Varies by slope and elevation	36% +
Black Mountain	25% (<1 acre) 16% (>1 acre) Any parcel above 2,600 ft	Yes (some), 2,600 ft	Yes	Parcel	No	16-25% - "Minimize impact" 25%+ - Regulated (varies)	36% +
Boone	30%	No	No	Parcel	No	30-49% - Regulated some (varies) 50%+ - Regulated more (varies)	50% +
Buncombe County	15%	Yes, 2,500 ft	Yes	Parcel	No	35% + - Regulated (varies)	36% +
Hendersonville	15%	No	No	Parcel	Yes	15-35% - Regulated (varies) 35%+ - Prohibited	None
Jackson County	35%	Somewhat, overlay trigger	Yes	Area of Disturbance	No	35% + - Regulated (varies)	None
Sylva	15%	No	Yes	Not defined	No	15-30% - Regulated some (varies) 30%+ - Regulated more (varies)	36% +
Waynesville	25%	Yes, 2,900 ft	Yes	Parcel	No	25% + - Regulated (varies)	None
Weaverville	15%	No	Yes	Parcel	No	15% + - Regulated (varies)	40% +

Existing Slope Calculation Example

Contour Length – 14,518

Contour Interval – 2'

Area – 3 acres



$$S = \frac{(l \times i)}{a} .0023$$

----- Contour line
 Parcel

$$S = \frac{(14,518 \times 2)}{3} .0023$$

$$S = \frac{(29,036)}{3} .0023$$

$$S = \frac{66.78}{3}$$

$$\underline{S = 22.26}$$

Not to Scale

COMMENT OF CONSISTENCY WITH COMPREHENSIVE PLAN AND ANY OTHER OFFICIALLY ADOPTED APPLICABLE PLANS

NCGS 160D-604 requires that the Planning Board shall advise and comment on whether the proposed amendment is consistent with any comprehensive plan prior to consideration by the Governing Board. The Planning Board shall provide a written recommendation to the Governing Board that addresses plan consistency and other matters as deemed appropriate by the Planning Board, but a comment by the Planning Board that a proposed amendment is inconsistent with the Comprehensive Plan shall not preclude consideration or approval of the proposed amendment by the Governing Board.

The Brevard Planning Board forwards this recommendation to City Council with a finding that the proposed zoning text amendment is **consistent** with the following elements of the City's adopted plans and policies:

Building Brevard 2030 Comprehensive Land Use Plan Goals

GOAL 2: *Encourage a development pattern that respects Brevard's sense of place and prioritizes livable communities.*

GOAL 5: *Celebrate Brevard's natural resources through conservation of environmentally sensitive areas, improving access to recreation, and restoration of native ecosystems.*

Building Brevard 2030 Comprehensive Land Use Plan Actions

PNRC-10: *Preserve steep slopes and natural areas adjacent to Pisgah Forest.*

LUH-4: *Identify areas across the City that are best positioned to accommodate future growth.*

LUH-9: *Evaluate and amend development ordinances to facilitate infill development on vacant and underdeveloped parcels, as well as revitalization of developed parcels.*

LUH-24: *Refine zoning districts and slope regulations in constrained areas*