

REQUEST FOR BOARD ACTION

HENDERSON COUNTY PLANNING BOARD

MEETING DATE: April 20, 2023

SUBJECT: LDC Text Amendment – TX-2023-03, Cryptocurrency Mining

PRESENTER: Autumn Radcliff, Planning Director

ATTACHMENTS: 1. Draft Amendment

SUMMARY OF REQUEST:

Many jurisdictions throughout the United States, including Cherokee County, have been dealing with cryptocurrency mining facilities and their impact to the community. As a result, several western North Carolina counties are in the process of developing regulations to address the issue and concerns with these types of uses. Currently, the Henderson County Land Development Code (LDC) does not specifically address the operation of cryptocurrency mining operations. This proposed amendment will establish locations where cryptocurrency mining operations may be located and the supplemental requirements that must be met to protect the public health, safety, and general welfare of county residents.

The purpose of the amendment is to mitigate the negative effects of cryptocurrency mining operations. This includes, but is not limited to, very high energy usage, noise pollution, and the disposal of electronic waste.

BOARD ACTION:

The Planning Board is requested to make a recommendation on the proposed amendment. The Board of Commissioners must hold a public hearing prior to adopting any amendments to the Land Development Code.

Suggested Motion:

I move that the Planning Board send forward a favorable recommendation on the proposed text amendment TX-2023-03, cryptocurrency mining with any changes as discussed, and find that these changes are consistent with the County Comprehensive Plan.

LDC Text Amendment (TX-2023-03)

Cryptocurrency Mining

Possible changes are highlighted.

Cryptocurrency Mining

Summary: The Henderson County LDC does not specifically address the operation of cryptocurrency mining. This amendment will establish locations where cryptocurrency mining operations may be located and the supplemental requirements that must be met to protect the public health, safety, and general welfare of county residents. The purpose of the amendment is to mitigate the negative effects of cryptocurrency mining operations. This includes, but is not limited to, very high energy usage, noise pollution, and the disposal of electronic waste. The high energy consumption of cryptocurrency mining operations has a negative impact on the power grid, and equipment at these facilities has the potential to create noise pollution that negatively impacts nearby residents, businesses, and wildlife. In addition, electronic waste from cryptocurrency mining operations contains heavy metals and carcinogens that have the potential to damage human health, and air and water quality if not handled correctly.

Amend the Table of Permitted and Special Uses as follows.

10. Manufacturing & Industrial Uses	R1	R2	R2R	R3	R4	OI	LC	CC	RC	I	SR
Cryptocurrency Mining										S	10.5

Definition:

Cryptocurrency Mining Operation(s). The operation of specialized computer equipment for the purpose of mining one or more blockchain-based cryptocurrencies, such as Bitcoin. This activity, which is also termed “proof of work,” involves the solving of algorithms as part of the development and maintenance of a blockchain which is a type of distributed ledger maintained on a peer- to-peer network. Typical physical characteristics of cryptocurrency mining include specialized computer hardware for mining operations as well as equipment to cool the hardware and operating space. For the purposes of the associated regulations, cryptocurrency mining includes the commercial “creation” (“mining”) of virtual currency not recognized as legal tender of the U.S., but does not include the exchange of cryptocurrency, the use, creation, or maintenance of all types of peer-to-peer distributed ledgers. This definition does not include use of one or not more than five computers from which cryptocurrency is mined in an enclosed structure, provided the cryptocurrency is not mined for commercial purposes.

Add SR and insert as SR 10.5:

SR 10.5. Cryptocurrency Mining

- (1) Site Plan. Major *Site Plan* required in accordance with §42-330 (Major Site Plan Review).
- (2) Perimeter Setback. One hundred (100) feet.
- (3) Separation. *Cryptocurrency mining operations* shall not be constructed or newly located within 1,000 feet (measurements from the property line of the proposed store to the property line of the district/use) of an existing dwelling unit (not located on the same property as the use), residential zoning district, library, day care facility, park, religious institution (including accessory uses not located on the same lot, but contiguous to the principal place of worship), or within two (2) miles of a school, all distances in straight-line distance.
- (4) Hours of Operations. *Cryptocurrency mining operations* shall not be mined between the hours of 9:00 pm to 6:00 am, or anytime on Sunday.
- (5) Noise Restrictions. Noise pollution generated from *cryptocurrency mining operations* shall not exceed 50 decibels per unit. The equipment in a cryptocurrency operation shall be calibrated every six (6) months and a report of this calibration shall be provided to the Henderson County Zoning Administrator.
- (6) Scenic Byways. *Cryptocurrency mining operations* shall not be permitted on sites visible from Scenic Byways as designated by the North Carolina Department of Transportation.
- (7) Security. *Cryptocurrency mining operations* shall be completely enclosed with a NCDOT approved precast sound wall. The wall shall be at least eight (8) feet in height. A B2 buffer is required on all exterior sides of the security wall.
- (8) Electrical Disconnection Switch. The electrical disconnect switch shall be clearly marked and unobstructed. Switches are permitted to be secured within a fenced area or building. Duke Energy or any other power utility provider to the operation shall have access to the disconnection switch at all times or an onsite manger must be present at all times.
- (9) Power Transmission Lines. All new power transmission lines to any building, structure or utility connection shall be located underground.
- (10) Power Grid Reductions. Duke Energy or any other power provider to the operation shall have the authority during select high power usage events to cut or significantly reduce or restrict power to any cryptocurrency mining operation. The power utility provider is requested to cut or reduce power to these operations before considering reducing power to residential homes or other commercial or industrial facilities.
- (11) Renewable Energy. *Cryptocurrency mining operations* shall be required to develop or purchase sufficient new renewable energy to offset 100 percent of the electricity consumed by the cryptocurrency mining operation. To meet this condition, the *cryptocurrency mining operation* must be able to establish that their actions will introduce new renewable energy onto the electrical grid beyond what would have been developed otherwise.
- (12) Electronic Waste. Verification must be provided to the Henderson County Zoning Administrator that all qualified recyclable materials, including electronic waste, generated at the *cryptocurrency mining operation* will be recycled including packing foam, computer chips, and cardboard.
- (13) Special Flood Hazard Area. No structures, equipment, storage, or buildings shall be located within the *Special Flood Hazard Area*.
- (14) Lighting. *Lighting mitigation* is required.
- (15) Prohibited. The use may not be applied for as a conditional rezoning application.