TOWN OF FLETCHER

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Data Center Discussion
Town Council March 9th 2026

Planning Department Staff Report
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What are Data Centers?

Data centers are the physical facilities that house the infrastructure of the internet. At their core, they are networked computer systems designed for data storage and processing, supported by equipment such as battery systems, backup generators, and cooling technology.

Industry analysts expect continued growth in data center construction, including both large "hyperscale" facilities and smaller "edge" centers distributed closer to users. Developers are drawn to sites with low latency, reliable and affordable electricity, and access to fiber infrastructure.

While data centers have traditionally clustered near major internet hubs and employment centers, the rise of cloud computing is driving expansion into smaller metropolitan and rural areas. Large technology firms often seek sites for expansive, single-story buildings, while colocation operators may pursue infill locations or existing structures with strong connectivity.

Because data centers consume significant electricity and require cooling, developers prefer areas with lower power costs, cooler climates, and reduced natural hazard risk.

From the outside, data centers often resemble typical commercial or light industrial buildings. However, their operational characteristics are usually very different from surrounding land uses. From a planning standpoint, the most significant distinctions involve their high electricity and water consumption, potential noise generation, heightened safety and security requirements, and relatively low employment densities.

In 2020, data centers consumed roughly 200 to 250 terawatt hours of electricity, about one percent of global demand. While efficiency gains have historically offset rising usage, growing demand from streaming, gaming, cloud computing, AI, and connected devices is expected to drive higher energy consumption. This figure does not include cryptocurrency mining, which alone used an estimated 60 to 70 terawatt hours in 2020, comparable to the annual electricity use of a mid-sized country.

Both data centers and cryptocurrency mining facilities generate significant waste heat and require substantial cooling, often relying on water. A medium sized data center can use more water annually than two 18-hole golf courses.

These facilities can also produce noise, particularly from rooftop or ground mounted cooling equipment, which may impact nearby properties, especially residential areas.

Because they operate continuously and house valuable equipment and sensitive data, data centers typically include enhanced security features such as fencing, gated access, and lighting.

Source- APA's Zoning Practice June 2022 Issue "Zoning for Data Centers and Cryptocurrency Mining" By David Morley, AICP

Current Regulations for Similar Uses

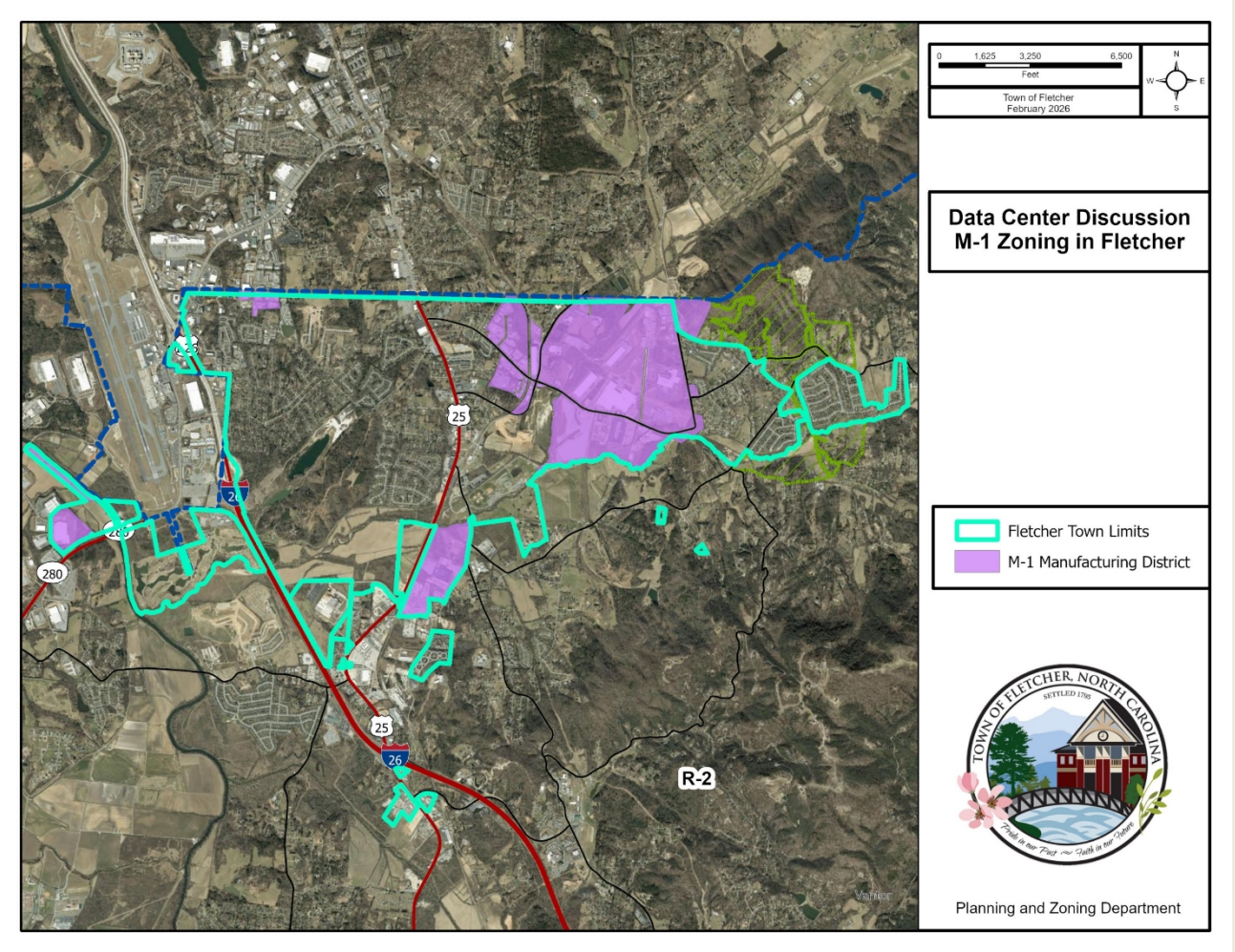
In 2023, Council added "Cryptocurrency Mining Operations" as a use listed in the Use Matrix. Cryptocurrency Mining Operations are not currently permitted in any zoning district within the Town. They are defined as "The operation of specialized computer equipment for the purpose of mining one or more 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."

As you will see, the current definition of Cryptocurrency Mining Operations is silent on overall data centers. While some data centers may include a cryptocurrency component, not all data centers involve cryptocurrency. Data centers can encompass a wide range of technological functions, such as hosting websites, providing cloud services, and supporting AI infrastructure. For these reasons, it would be my interpretation that our current definition and prohibition of Cryptocurrency Mining Operations does not extend to all data centers.

The ordinance does state, however, that "Any use not listed in the Use Matrix is prohibited unless the Administrator determines that it falls within the same class as a listed use as set forth." Since data centers are not explicitly listed as a permitted use, it could be argued that they are already prohibited. However, without a clear definition or supplementary standards, an attorney could contend that a data center falls within an existing permitted industrial use category. In short, if the Town wishes to specifically regulate data centers, my recommendation would be to add them as a defined use and clearly indicate where they are permitted or prohibited. This would also allow the Town to adopt supplementary standards tailored to this use, ensuring it can be regulated in a manner consistent with the Town's goals and priorities.

The ordinance further states "Uses not listed as a permitted (P), permitted with additional standards (PS) or requiring a special use permit (SUP) are presumed to be prohibited from the applicable zoning district. 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. 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. Should the Administrator determine that a materially similar use does not exist, this Chapter may be amended to establish specific listing for the use in question."

Where would the Data Centers Likely be Built?



Based on the information outlined above regarding the size and configuration typically required for data centers, it is reasonable to conclude that such a facility in the Town of Fletcher would most likely be located within the M-1 Manufacturing District. Properties within this district are generally larger in scale and capable of accommodating the square footage and building design commonly associated with data center development.

All the areas within the Town that currently hold this designation are shown in the above map in purple. The existing town limits are shown in Cyan.

If Council decides that data centers should be allowed in more areas, then the map can be adjusted accordingly. As mentioned previously Cryptocurrency Mining Operations are not currently permitted anywhere within Town limits, not even within the M-1 district which allows the most intensive of uses.

Process for a Moratorium

Towns have the authority to adopt a temporary moratorium on development approvals in order to provide time to prepare and adopt new plans or regulatory standards. Pursuant to G.S. 160D-107, North Carolina local governments "may adopt temporary moratoria on any development approval required by law."

G.S. 160D-107(d) requires the local government to be clear about why the moratorium is necessary as well as when and how the issues will be resolved. At the time of adopting a development moratorium the regulation must include the following details:

(1) A statement of the problems or conditions necessitating the moratorium and what courses of action, alternative to a moratorium, were considered by the local government and why those alternative courses of action were not deemed adequate.

(2) A statement of the development approvals subject to the moratorium and how a moratorium on those approvals will address the problems or conditions leading to imposition of the moratorium.

(3) A date for termination of the moratorium and a statement setting forth why that duration is reasonably necessary to address the problems or conditions leading to imposition of the moratorium.

(4) A statement of the actions, and the schedule for those actions, proposed to be taken by the local government during the duration of the moratorium to address the problems or conditions leading to imposition of the moratorium.

A moratorium must be limited to a reasonable duration tied directly to the time necessary to address the issue that prompted it. Under G.S. 160D-107(a), the length may not exceed the period required to correct, modify, or resolve those conditions. An extension is permitted only if the local government has taken all reasonable and feasible steps outlined in the original ordinance and if new facts or conditions justify the continuation. Any extension ordinance must include the same findings required by G.S. 160D-107(d), including a statement of the new facts or conditions warranting the extension.

For a moratorium of 60 days or less, the governing board must hold a legislative hearing and provide at least seven days' public notice prior to the hearing. For any moratorium exceeding 60 days, the local government must comply with the standard notice and hearing requirements in G.S. 160D-601, including published notice of the legislative hearing on two separate occasions. These same requirements apply to any extension that causes the total duration of the moratorium to exceed 60 days.

An exception exists for situations involving an imminent and substantial threat to public health or safety, in which case a moratorium may be adopted without prior notice pursuant to G.S. 160D-107(b).