JOPLIN
PLANNING, DEVELOPMENT, & NEIGHBORHOOD SERVICES

STAFF PLANNING REPORT
Text Amendment

CASE 019-26 Text Amendment

APPLICANT City of Joplin

REQUEST:
The applicant is requesting to amend Appendix 29-A of the Joplin Municipal Code (Joplin Development Code), adopting specific use standards and definitions for Data Center.

DISCUSSION:
The current zoning code does not list data centers as a specified use group, nor does it include specific use standards for said use group. Currently, undefined uses fall under the discretion of the Planning, Development, and Neighborhood Services Director, to decide which zoning district the proposed use falls under.

City Staff has conducted research to address all industry concerns related to data centers, as well as concerns expressed through public engagement with City residents and at previous public hearings. The largest concerns centered around separation of uses, environmental impacts, utility costs, noise, lighting, renewable energy, and allowable zoning district. The proposed text amendment also addresses industry standards not explicitly addressed by the public.

As part of staff's analysis, an evaluation of existing City regulations within the State of Missouri was composed:

	St. Louis, MO	Branson, MO	Kansas City, MO	Joplin, MO
Status	P&Z Vote Delayed (5-18-26)	Adopted	Adopted	Not Adopted
Setback	300 feet from transit center, residential, assessed residential, or church, school, or park (lot line to lot line)	500 feet from residential use or district, church, daycare, lodging, park, & schools (from property line)	No separation but more restrictive design standards for data centers over 500k sf	300 feet from lodging, residential zone or use, church, school, day care, public/civic. 50 feet everywhere else.
Environ-mental	All require closed loop cooling, LEED certification, and cool roof	No Explicit Regulations	Green Roof	closed loop cooling, meet LEED or other green building program standards, cool roof
Utility Costs	No specific protection for general consumers	Must receive letter from utility that adequate capacity is present	Will Serve letter from utility	Guarantee that consumer rates will not increase as result
Noise	55db from 7a-10p or 50db from 10p-7a	65 dBC at property line. 55 dBC at property line when within 500' of residential, church, daycare, lodging, park & school	No noise detectable perceptible beyond property line if over 500k sf	45dBC within 50' of specified conflicting uses. 80 dBC at property line when not adjacent to identified conflicting uses.
Lighting	Require Fixture cutoff & shields	No Explicit Regulations	No Explicit Regulations	0.5 fc at property line and mounting height/shielding requirements
Renew-able Energy	Standard (5+ MW) - 50% renewable within 5 yrs of operation Large Load (75+ MW) 75% within 5 yrs	Not Explicitly Required	Not Explicitly Required	Not Explicitly Required
Zoning	Micro (<5MW) P in Industrial & Unrestricted Districts, SUP in Central Comm, Central Business, and Jefferson Memorial District Standard (5+MW) SUP in Jefferson Memorial, Unrestricted, Industrial, and Central Business Districts Large Load (75+MW) SUP in Unrestricted District	SUP in Industrial or through PD approval	SUP for Heavy Commercial, Downtown P in Industrial or PD	SUP only in M-2 (Heavy Industrial) District

The proposed changes will accomplish the following:

- Establish a use group and definition for data centers.
- Require a Special Use Permit for data centers, within the M-2 (Heavy Industrial District).
- Establish Specific Use Standards for data centers.

DEFINITION OF USE:

Data centers will be defined as "a facility whose primary service is data processing or data storage, and is used to house computer systems and associated components, such as central processing units, graphical processing units, neural networks, quantum bits, quantum processors, memory, data routing, data storage, server farm, bitcoin mining, crypto processing, virtual private networks, virtual servers, artificial intelligence training or processing, image processing, cloud computing, email servicing, a telecom hotel, Telehouse co-location, or any other term applicable to facilities which are used for such purposes shall be deemed to be a data center."

PERMITTED DISTRICTS:

Under the terms of the proposed text amendment, data centers will only be permitted within the M-2 District (Heavy Industrial). This use will not be permitted by right and will require a Special Use Permit prior to permits for improvement and operation. The specific use standards establish criteria that must be met for the issuance of a Special Use Permit. As part of the Special Use Permit Procedures in Article 2, Section 5, of the Joplin Development Code, the Planning and Zoning Commission and City Council may apply additional conditions for the Special Use Permit on a case-by-case basis, as deemed necessary.

SPECIFIC USE STANDARDS:

The Specific Use Standards proposed create operational standards in regard to conflicting uses, energy/water consumption, mitigating noise impact, etc. The proposed use standards will create a setback buffer of 300 feet for all improvements to a data center site. Noise will be limited to 45 db within 50 feet of the property line, when adjacent to residential uses. Data centers will be required to operate with a closed loop system do reduce water consumption, and a cool roof system, to minimize glare and site heating. Generators will be regulated by the noise provisions, and energy reports must be submitted as part of the application. Developers will be required to provide formal written verification of cost responsibility for infrastructure improvements.

Improvements and impacts to the site will be required to be submitted to the City at the time of Special Use Permit application, including a full site plan, building elevations, projected noise levels, and documents addressing all other items specified within the text amendment.

The proposed ordinance has been attached with the application materials, as part of this case.

EVALUATION OF SPECIFIC STANDARDS WHEN COMPARED TO OTHER COMMUNITIES:

Setback:

As a semi-rural community, Joplin requires a less restrictive setback than City's like St. Louis, which is composed of high-density, primarily urban neighborhoods. The City is proposing a 300-foot setback from specified conflicting uses, including public/civic, lodging, and residential uses.

A 50-foot setback is required from all other zoning districts and uses that are not explicitly identified as a conflict (public/civic, lodging, and residential).

Environmental:

The City is proposing a closed loop cooling system, which recycles water and reduces energy and water consumption. The City is also proposing a cool roof requirement, which means that the roofing system utilizes lighter colors or specialized coatings that reflect light, cooling the building, which in turn reduces energy consumption, while also reducing heating of surrounding areas (in other words, "mitigates the potential for heat islands"). The City also proposes that structures meet green building standards, which focus on optimizing energy performance and emissions, sustainable building materials, proper ventilation, sustainable sites that minimize erosion, light pollution, and ecological impact during construction, optimizing transportation, and more.

Utility Costs:

The City is proposing adding a clause to the specific use standards, that will require developers to verify with utility companies via written documentation to the City, that existing residents will not bear the cost of utility upgrades.

Noise:

The City's existing noise provisions for allowable decibel counts do not address "C-weighted decibels." A C-weighted decibel (dBC) captures a much wider range of frequencies, specifically low-end bass, than a standard decibel (dB) measurement. The City is proposing a more restrictive allowable dBC level than the identified surrounding communities, when in proximity to specified conflicting uses. The general allowable dBC level will match the current standard operating noise levels for Heavy Industrial properties, identified in Article 4 of the Joplin Development Code. The proposed allowable dBC for data centers is 80dBC.

Lighting:

The City already has limitations on mounting heights, and lighting intensity, and requires more restrictive lighting cut-offs at different mounting heights/wattages. The proposal is to add a provision limiting foot candles (fc) to 0.5, when measured at property line, 3 feet above grade. For context, a full moon night is about 0.01 fc, most lit parking lots are between 2-5 fc at their brightest points, stadiums and sports arenas are between 50-100 fc, and direct sunlight is between 1,000-10,000 fc.

Renewable Energy:

The City is not proposing a requirement for renewable energy. The only City to propose a change requiring sustainable energy in the State of Missouri is St. Louis. St Louis is heavily urbanized metropolitan town, suffering from a low tree canopy (about 20%) and being covered in dark, impermeable surfaces by about 57%. Another contributing factor is that Ameren, the electrical utility provider for St. Louis, is a coal-heavy utility provider. Coal makes up the largest portion of its energy generation portfolio. St Louis mandated a 100% clean energy initiative by 2035, *city-wide*, not just focusing on data centers exclusively. The Environmental Protection Agency (EPA) determined that the St. Louis bi-state area did not meet the 2015 ozone National Ambient Air Quality Standards (NAAQS) by the August 2024 deadline and thus were reclassified from a "Moderate" to a "Serious" nonattainment status, effective December 31, 2024. As of May 2026, the region still maintains a failing grade for ozone and particle pollution in annual reports.

Requiring renewable energy adoption may force data centers to other communities or into the county, where these regulations are not present and do not impose additional costs on the developer/end user. Additionally, requiring on-site renewable energy, such as windmills or solar

panels, decreases the amount of available green space, and may negatively impact environmentally sensitive areas.

Large scale renewable energy resources, such as solar panels, create their own nuisances on surrounding properties, including glare, operational noise, visual and aesthetic problems.

Zoning:
The City is proposing the most restrictive zoning provisions compared to surrounding communities, only allowing data centers of all types, sizes, and power consumption levels, within our most intensive zoning district (Heavy Industrial), exclusively through Special Use Permit.

Staff recommends to approve Case 019-26

ENCLOSURES:
- Application
- Proposed Ordinance