1. Amend Section 4.2, by adding section 4.2.21 Data Centers:

### A. Intent.

The intent of this Article is to promote and regulate the design, siting, construction, operation, maintenance and decommissioning of data centers and to protect the health, safety and welfare of neighbors and the public, and to avoid unintended impacts on resources and adjacent uses.

# B. Purpose.

The purpose of this Section is to provide the requirements necessary to obtain a permit to install and operate an active data center in Clinton County.

**C. Definitions.** As used in this SECTION, the following terms are hereby defined, in addition to those found in Definitions of this Ordinance:

Clean Agent Fire Suppression system: A system that uses electrically non-conductive gaseous agents that do not leave residue upon evaporation to extinguish fires.

Closed-loop cooling system: A sealed system where a coolant circulates continuously, absorbing heat from a source, and then transferring that heat to a heat exchanger for removal, without the coolant ever being exposed to the environment.

Commercial cryptocurrency mining: The commercial process by which cryptocurrency transactions are verified and added to the public ledger, known as the block chain, and the means through which new units of cryptocurrencies are released through the use of server farms. Any equipment requiring a high- density load service, for the purposes of operating a cryptocurrency mining server farm, will constitute a commercial cryptocurrency mining operation.

Community Noise Equivalent Level (CNEI): The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dB to sound levels occurring in the evening from 7 PM to 10 PM and after the addition of 10 dB to sound levels occurring in the night between 10 PM and 7 AM.

**Cryptocurrency:** A digital currency in which encryption techniques are used to regulate the generation of units of currency and to verify the transfer of funds while operating independently of a central bank.

Cryptocurrency data center: Leased or owned boundaries of floor space devoted to the operating data processing equipment for commercial cryptocurrency mining: excludes spaces for data centers not otherwise engaged in commercial cryptocurrency mining, commercial offices, storage, shipping and receiving, warehousing, or any other space that is not electronic processing.

Cryptocurrency server farm: Three or more interconnected computers housed together in a single facility either air-cooled or water cooled, whose primary function is to perform

cryptocurrency mining or associated data processing.

**Data mining:** The commercial process by which volumes of data are analyzed to find patterns, discover trends, and gain insight into how the data can be used will constitute a commercial data mining operation.

**Data Center** – A facility used primarily for the storage, management, processing, and transmission of digital data, which houses computer or network equipment, systems, servers, appliances and other associated components related to digital data operations. A Data Center includes a cryptocurrency data center, a cryptocurrency server farm, data mining, a data mining center, a commercial cryptocurrency mining and commercial data mining.

The facility may also include air handlers, power generators, water cooling and storage facilities, utility substations, and other associated utility infrastructure to support sustained operations at the Data Center.

Data Center Accessory Use: Ancillary uses or structures secondary and incidental to a Data Center use, including but not limited to: administrative, logistical, fiber optic, storage, and security buildings or structures; sources of electrical power such as generators used to provide temporary power when the main source of power is interrupted; electrical substations; utility lines, domestic and non-contact cooling water and wastewater treatment facilities; water holding facilities; pump stations; water towers; environmental controls (air conditioning or cooling towers; fire suppression, and related equipment), and security features, provided such Data Center Accessory Uses/structures are located on the same tract or assemblage of adjacent parcels developed as a unified development with a Data Center. The use shall not include energy generation systems used or intended to be used to supply power to the Data Center during normal operations.

**Data Center Substation:** A facility used for the transformation or transmission and/or switching of voltages to distribution voltages which switches circuits and distributes usable/consumable electric power, specifically for Data Center users on the same or adjacent site, or on a site immediately across a road right-of-way.

**Data Center Principal Building:** A building that contains the office and/or data storage functions of a Data Center.

**High-density load service:** Any individual service at or above 660 amps in which the energy use intensity (EUI) is calculated as greater than 250 kWh/Feet2/year in total for all operating square footage.

**Liquid Cooling System:** A method of cooling electronic components or other devices by circulating liquid coolant through them, to cool and absorb heat from components and then dissipate heat through a radiator.

**Sensitive Receptors:** Schools, preschools, day care centers, in-home daycares, health facilities such as hospitals, long term care facilities, retirement and nursing homes, community centers, places of worship, playgrounds, parks (excluding trails), campgrounds, prisons, dormitories, and any residence where such residence is not located on a parcel with an existing industrial,

commercial, or unpermitted use as determined by the zoning administrator.

## D: Data center operations.

- 1. A site plan shall be submitted and reviewed prior to the approval of the data center installation in accordance with Section 9.3.9 and shall require a special use permit.
- 2. Applicants wishing to site a new data center or cryptocurrency mining facility within Clinton County must provide an application and site plan. Each project shall require a separate application. Data Centers will use the Special Permitted Use application under the appropriate district. The application for a data center installation shall include the following information on the site plan or in narrative form, supplied by the data center installation owner.
  - a) The name, address, EIN of Applicant, as well as the proposed property owners, including contact information (name, address, telephone and email) of the authorized representative.
  - b) Project development timeline which indicates how the applicant will inform adjacent property owners and interested stakeholders in the community.
  - c) Project development plan for the project, which plan shall contain aerial photographs of the entire proposed project area, showing the proposed location for the facility. The plan shall show property lines and setback distances.
  - d) Documentation of Applicant's legal control over the private property necessary for the project, signed by the property owner.
  - e) The applicable fee.
  - f) A report prepared by a qualified third-party analyzing the noise profile of the project area and the ability of the project to demonstrate compliance. The expense for testing and reporting the results, in written format to the County will be the responsibility of the applicant.
  - g) Ice mitigation report for public right of ways and neighboring properties approved by the Clinton County Engineer and adjacent landowners.
  - h) Emergency Operations Procedures. A copy of the approved Emergency Operations Procedures shall be given to the system owner, the local fire department, the Sheriff, and Clinton County Emergency Management. A permanent copy shall also be placed in an approved location to be accessible to facility personnel and emergency responders.
  - i) Decommissioning plan see subsection H.

- j) Data Center placement and Orientation:
- 3. All principal and accessory structures associated with a Data Center shall be arranged, designed, and constructed to be harmonious and compatible with the site and with the surrounding properties. In general, Data Centers that visually approximate commercial office buildings are encouraged.
- 4. Buildings shall be sited and oriented to:
- a) Minimize visual impacts of the bulk of the building when examined on the line-of-sight basis from adjacent public streets and Sensitive Receptor areas.
- b) Provide safe and convenient vehicular access to the site, including sufficient on-site queuing areas at security gates.
  - c) Accommodate adequate parking.
  - d) Minimize impacts to natural resources
  - e) Incorporate appropriate stormwater management practices.
- 5. Data Center campuses containing more than one building are encouraged to provide a variety in building size, massing, siting, and appearance by transitioning from smaller or lower buildings along street frontages to larger and taller structures on the interior of the site. Consideration of topography shall be given to avoid placement of larger, taller, or more massive buildings in a prominent location on the property or along a public street.
- 6. Connection to public water and public sewer is required.
- 7. External building materials shall be of colors that are low-reflective, subtle, or earth tone. Fluorescent and metallic colors shall be prohibited as exterior wall colors.
- **E. Buffer yard screenings.** All Data Center operations shall provide buffer yards and screening along all property boundary lines, except for areas of ingress and egress to the site.
  - 1. Service Areas Loading bays, refuse collection areas, and service entrances shall be screened from view from existing or planned public roads, Sensitive Receptors, and residential zoning districts. Screening may include year round landscaping or a screen wall of an appropriate height to mitigate visual impacts as determined by a line-of-sight study submitted by the applicant.
  - 2. Mechanical/Electrical Equipment Screening.
  - 3. Ground-mounted equipment adjacent to and serving the Data Center Principal Building shall be completely screened behind an opaque wall or fence. When the equipment is located between buildings, a combination of walls and gates may be used at the openings between buildings.

When in or adjacent to an industrial use or zoning district, ground-mounted equipment screening is only required from any existing or planned public road.

Ground-mounted equipment is prohibited in any required setback.

# 4. Buffering:

a) Data Center sites abutting Sensitive Receptors or collector/arterial roads must include an enhanced buffer yard with required plantings located on an earthen berm with a grade no steeper than 2:1. The minimum height of the berm abutting Sensitive Receptors is twelve (12) feet, and abutting collector/arterial roads is ten (10) feet. Where the combined footprint of the principal structure or structures is less than 100,000 square feet: A minimum 100-foot buffer yard shall be provided along the entire length of any public street frontage of any property upon which the Data Center is located and along any property line which abuts or is within 500 feet of an existing residential property line or zone, school, daycare center, hospital, place of worship, designated park, or public open space.

A minimum 50-foot buffer yard shall be provided along any property line adjacent to a non-residential use or zone.

Where the combined footprint of the principal structure or structures is between 100,000 square feet and 250,000 square feet: A minimum 150-foot buffer yard shall be provided along the entire length of any public street frontage of any property upon which the Data Center is located and along any property line which abuts or is within 500 feet of an existing residential property line or zone, school, daycare center, hospital, place of worship, designated park, or public open space.

A minimum 50-foot buffer yard shall be provided along all other property lines.

Where the combined footprint of the principal structure or structures exceeds 250,000 square feet: A minimum 300-foot buffer yard shall be provided along the entire length of any public street frontage of any property upon which the Data Center is located and along any property line which abuts or is within 500 feet of an existing residential property line or zone, school, daycare center, hospital, place of worship, designated park, or public open space.

A minimum 50-foot buffer yard shall be provided along all other property lines.

- b) Utilities should be located outside of buffer yards to the maximum extent feasible to maintain a cohesive buffer yard, protect landscaping, and preserve open space. Utilities should be colocated when feasible to minimize the number of utility crossings through the required buffer yard, particularly when such crossings cannot be avoided.
- c) Use of existing vegetation for landscaping and screening is strongly encouraged and may be substituted for new berms and plantings if approved by the Zoning Administrator.

The required number of plant units shall be calculated in accordance with other municipal screening requirements.

Buffer yards along roadways shall be measured from the street right-of-way line. Where a lot line drainage or utility easement is required, the buffer yard shall be measured from the inside

edge of the easement. Buffer yards shall not include environmental encumbrances such as, but not limited to, wetlands, wetland transition areas, riparian buffers, and flood hazard areas as may be imposed by outside agencies.

The buffer yard shall include a dense landscape buffer consisting of the following:

- (i) One (1) large evergreen tree per 25 linear feet of buffer. The size of large evergreen trees shall be a minimum of eight (8) feet in height at the time of planting. Narrow/upright evergreen species may also be used within buffers at a ratio of 3:1. No more than 25% of the total required large evergreen species can be substituted with narrow/upright species.
- (ii) One (1) canopy (shade) tree per 75 linear feet of buffer. The size of canopy (shade) trees shall be a minimum of 2 ½ inch caliper at the time of planting.
- (iii) One (1) ornamental/flowering tree per 50 linear feet of buffer. The size of ornamental/flowering trees shall be a minimum of eight (8) feet in height for multistemmed varieties, or 2 ½ inch caliper at the time of planting for single-stemmed varieties.
- (iv) Five (5) shrubs per 25 linear feet of buffer. Shrubs shall be fully branched and a minimum of three (3) feet in height at the time of planting. Shrubs shall be a combination of evergreen and deciduous species, with a minimum of 50% evergreen. D.
- d) The landscape buffer shall be located along the outer edge of the buffer yard. Plant material within buffer plantings shall meet the following requirements:
  - (i) Be resistant to diesel exhaust.
  - (ii) Not identified on the most current DCNR invasive species or watch lists.
  - (iii) Be hardy within USDA hardiness Zone 4.
  - (iv) Shall be planted on the top and the exterior of any berm in order to provide effective screening.
  - (v) Shall be arranged in groupings to allow for ease of maintenance and to provide a natural appearance.
  - (vi) Shall provide a diversity in plant species, such that no one species accounts for more than 25% of each plant type.
  - (vii) The plantings shall be arranged to provide a complete visual screen of the property at least 12 feet in height, measured in addition to the height of any required berm, within three (3) years.

- (viii) The buffer yard may be located within the required building setback lines. No impervious surface is permitted within the buffer yard aside from access drives, sidewalks, and associated improvements.
- 5. The maximum building height for Data Centers shall comply with the zoning district standards set forth in section 3.6 of this ordinance.
- 6. Environmental and Community Impact Analysis:

Prior to the commencement of the Special Except Use hearing, the applicant shall provide an environmental and community impact analysis. The environmental and community impact analysis shall include:

- a) A narrative description of the nature of the on-site activities and operations, including the market area served by the facility, the hours of operation of the facility, the total number of employees on each shift, the times, frequencies, and types of vehicle trips generated, the types of materials stored and the duration period of storage of materials.
- b) A site plan of the property indicating the location of proposed improvements, flood plains, wetlands, waters of the Commonwealth and cultural and historic resources on the property and within 500 feet of the boundaries of the property.
- c) Evidence that the disposal of materials will be accomplished in a manner that complies with state and federal regulations.
- d) An evaluation of the potential impacts of the proposed use, both positive and negative, upon: Emergency services and fire protection,
- e) Any environmental impacts that are likely to be generated (e.g., odor, noise, smoke, dust, litter, glare, vibration, electrical disturbance, wastewater, stormwater, solid waste, etc.) and specific measures employed to mitigate or eliminate any negative impacts. The applicant shall further furnish evidence that the impacts generated by the proposed use fall within acceptable levels, as regulated by applicable laws and ordinances. Those impacts must specifically address the following:
  - (i) Water supply,
  - (ii) Sewage disposal,
  - (iii) Solid waste disposal,
  - (iv) School facilities and school district budget,
  - (v) Municipal revenues and expenses.
- **F. Public notice**. Upon receipt of all applications and filing fees, the Zoning Administrator shall place on the appropriate Board or Commission's agenda for the next regular meeting and see that proper notice is provided. Proper notice shall consist of publication of the request along with the time and place for the hearing at least five (5) days prior to the hearing, but no longer than twenty

(20) days prior to the hearing in all the officially designated newspapers of the County. In addition, the applicant shall provide proof certified mailings were sent 60 days prior to all property owners within a one (1) mile radius with the time and place for the hearing.

## G. General siting and design requirements.

- 1. Lot Size: Minimum lot size shall adhere to the minimum standards for the zoning district where the project is located.
- 2. Setbacks: Structures must adhere to the minimum accessory structure setback standards for the zoning district where the project is located; greater setbacks may be recommended.
- 3. Utility Connections: Reasonable efforts shall be made to place all utility connections from data center facilities underground, depending on appropriate soil conditions, shape and topography of the site, distance to the connection, or other conditions or requirements.
- 4. Regulations: All structures shall be subject to bulk and height regulations in the underlying zoning district.
- 5. Screening/Buffering: A landscape buffer is required to be installed and maintained during the life of the operation as provided in the "Buffering" subsection. Determination of the screening requirements will be made by the Board of Adjustment as part of the review and approval process and will be based on adjacent or nearby surrounding land uses and topography.
- 6. Signage: Each data center operation shall provide 24-hour emergency contact signage visible at the access entrance. Signs shall include company name, owner/representative name, telephone number, and corresponding local power company and telephone number. All additional signage must adhere to the Clinton County Sign ordinance.
- 7. For the lighting of predominantly horizontal surfaces, such as, but not limited to, parking areas, roadways, vehicular and pedestrian passage areas, loading docks, building entrances, sidewalks, bicycle paths, and site entrances, luminaires shall be aimed down, and shall meet Illuminating Engineering Society of North America (IESNA) full cut-off/fully shielded criteria.
- 8. For the lighting of predominantly non-horizontal surfaces, such as, but not limited to, facades, landscaping, and signs, luminaires shall be shielded and shall be installed and aimed to not project their output into the windows of neighboring residences, adjacent uses, past the object being illuminated, skyward, or onto a public roadway.
- 9. The illumination projected onto a residential use shall at no time exceed 0.1 footcandle, measured line-of-sight and from any point on the receiving residential property.
  - a) Glare
  - b) LED Lights
  - c) Luminaires

- d) Lighting After Hours
- 10. The illumination projected from any property onto a non-residential use shall at no time exceed 0.5 initial footcandle, measured line-of-sight from any point on the receiving property.
- 11. Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily using such means as cutoff luminaires, shields and baffles, and appropriate application of luminaire mounting height, wattage, aiming angle, and luminaire placement.
- 12. LED light sources shall have a correlated color temperature that does not exceed 3000K.
- 13. Luminaires shall not be mounted more than 20 feet above the finished grade of the surface being illuminated. No pole-mounted lighting on the roof shall be permitted.
- 14. Lighting for parking areas and vehicular traffic ways shall be automatically extinguished nightly within ½ hour of the close of the facility. On/off control shall be by an astronomic programmable controller with battery or capacitor power-outage reset. When after-hours site safety/security lighting is proposed, such lighting shall not exceed 25% of the number of fixtures required or permitted for illumination during regular business hours. Where there is reduced but continued onsite activity throughout the night that requires site-wide even illumination, the use of dimming circuitry to lower illumination levels by at least 50% after 11 PM or after regular business hours, or the use of motion sensor control, shall be permitted.
- 15. Noise: Audible noise caused by data centers and cryptocurrency mining operations, not including existing ambient noise, shall not exceed fifty-five (55) dB continuously during daytime hours or a nighttime continuous sound level of forty-seven (47) dB.
  - a) In the event audible noise due to data centers and cryptocurrency mining operations contains a steady pure tone, such as a whine, screech, or hum, the standards for audible noise set forth shall be reduced by five (5) dB.
  - b) Audible noise caused by data centers or cryptocurrency mining facilities shall not exceed sixty (60) dB for more than 5 minutes within an hour, when measured at the exterior of any residence, school, hospital, church, or public library existing on the date of approval of the permit.
  - c) In the event the ambient noise level (exclusive of the development in question) exceeds the applicable standard given above, the applicable standard shall be adjusted to equal the ambient noise level. The ambient noise level shall be expressed in terms of the highest whole number sound pressure level in dB, which is exceeded by more than five (5) minutes per hour. Ambient noise levels shall be measured at the exterior

- of potentially affected existing residences, schools, hospitals, churches, and public libraries. Ambient noise level measurement techniques shall employ all practical means of reducing the effect of generated noise at the microphone.
- d) In the event the noise levels resulting from data centers and cryptocurrency facilities exceed the criteria listed above, a waiver to said levels may be granted by the Board of Adjustment provided that the following has been accomplished.
  - (i) Written waiver from the affected property owners has been obtained stating that they are aware of the data center or cryptocurrency facility and the noise limitations imposed by this Ordinance, and that consent is granted to allow noise levels to exceed the maximum limits otherwise allowed; and,
  - (ii) If the applicant wishes the waiver to apply to succeeding owners of the property, a permanent noise impact easement shall be recorded in the Office of the Clinton County Recorder which describes the burdened properties and which advises all subsequent owners of the burdened property that the noise levels in excess of those permitted by this Ordinance may exist on or at the burdened property.
- 16. Structure: All structures shall have permanent concrete foundations.
  - a) Structures shall not be defective, decayed, or corroded.
  - b) Structures shall be permanent. The use of cargo containers, railroad cars, semi-truck trailers, and other similar storage containers for any component of the operation are prohibited.
  - e) A clean agent fire protection system must be provided and maintained in good working order within any structure which contains a data center. High sensitivity smoke detectors shall be installed and operational in order to activate the clean agent fire suppression system.
- 17. Zoning: Data centers shall only be allowed as a Special Exception Use permit in the C-1, C-2, M-1, and M-2 zoning Districts.
- 18. Cooling System: Data centers and cryptocurrency mining facilities shall be required to have a liquid cooling system.
  - a) A closed loop cooling system will be required.
  - b) The application shall include an estimate of annual water consumption for the site.
  - c) A water use impact statement by a qualified hydrologist shall be provided at the time of application.
  - d) The intended source of water for the development, and documentation from the Iowa

### Exhibit "A"

- Department of Natural Resources along with Clinton County Environmental Health affirming sufficient water resources exist to serve the site.
- e) All necessary permits must be obtained from Clinton County Environmental Health and the Iowa Department of Natural Resources.
- 19. Equipment: All servers, computers, processers, materials, and equipment must be enclosed within buildings.
- 20. Electrical Power: Prior to issuance of a permit, the applicant shall provide written verification from the power provider that the applicant has calculated the maximum potential electrical consumption of the proposed use and has verified the utility supply equipment and related electrical infrastructure is sufficiently sized and can safely accommodate the proposed use during the power provider's peak consumption hours.
- 21. Power Provision: Prior to the issuance of a building permit, the applicant shall provide written verification from their proposed power provider that the applicant has calculated the maximum potential electrical consumption of the proposed use and has verified the utility supply equipment and related electrical infrastructure is sufficiently sized and can safely accommodate the proposed use during the power provider's peak consumption hours.
- 22. Fire Safety: The applicant shall show a determination from the local fire department that the site can be reasonably serviced.
  - a) Areas within ten (10) feet of structures uses for data centers shall be cleared of combustible vegetation and other combustible growth.
  - b) A plan for Emergency Operations procedures including fire safety and response measures shall be approved by the Zoning Administrator prior to commencement of the approved used.
    - (i) A copy of the Emergency Operations Procedures shall be given to the local fire department, and Clinton County Emergency Management and be present onsite in a location to be accessible to facility personnel, fire code officials, and emergency responders.
  - The site operator will coordinate with the local fire department and Emergency Management Agency (EMA) to offer and provide training on an annual basis for the life of the project.
  - d) The applicant/site operator shall coordinate with the EMA Director to ensure the is adequate radio coverage for emergency responders within the building based upon existing coverage levels of the Clinton County Communications System at the exterior of the building and shall install enhancement systems as needed to meet compliance.
- 23. Ice Mitigation Report: Any data center or cryptocurrency facility shall ensure that the

amount of heat that is dissipated by the mining activity shall be monitored when the average daily temperature is 40 degrees Fahrenheit or less to ensure that there is no buildup of ice on neighboring properties and roadways.

a) In the instance that condensation and ice occur, there shall be an agreement between the facility's operational contact, owners of neighboring properties, and the County Engineer to mitigate ice on public right of way.

## H. Discontinuance, decommissioning and abandonment.

The application must include a decommissioning plan that describes the anticipated life of the facility and the manner in which the project will be decommissioned; the site restoration actions; removal of equipment, the estimated costs in current dollars; and the method for ensuring that funds will be available for decommissioning and restoration.

Following a continuous one-year period in which no mining is generated, or if substantial action on the project is discontinued for a period of one year, the permit holder or successor and interest, will have one year to complete decommissioning of the data center. Decommissioning shall be completed in accordance with the approved decommissioning plan. The landowner or tenant must notify the County when the project is discontinued.

- b) Amend Section 3.6.5.D, by adding section: 3.6.5.D.8 Data Centers, Subject to section 4.2.21.
- c) Amend Section 3.6.6.D, by adding section. 3.6.6.D.7 Data Centers, Subject to section 4.2.21.
- d) Amend Section 3.6.7.D, by adding section: 3.6.7.D.7 Data Centers, Subject to section 4.2.21.
- e) Amend Section 3.6.8.D, by adding section: 3.6.8.D.12 Data Centers, Subject to section 4.2.21.