

MONROE TOWNSHIP
CUMBERLAND COUNTY, PENNSYLVANIA

ORDINANCE NO. 2027-0X

AN ORDINANCE OF MONROE TOWNSHIP, CUMBERLAND
COUNTY, PENNSYLVANIA, AMENDING SECTIONS 305(1),
3.06(B), 6.02(A) AND TABLE 3.01 OF THE ZONING ORDINANCE
ADOPTED ON SEPTEMBER 12, 2024, REGARDING DATA
CENTERS AS CONDITIONAL USES AND PERMITTED
ACCESSORY USES FOR DATA CENTERS IN THE
HIGHWAY COMMERCIAL AND INDUSTRIAL ZONES

WHEREAS, the Board of Supervisors of Monroe Township has determined that it is appropriate to amend the Township's Zoning Ordinance; and

WHEREAS, the Board of Supervisors of Monroe Township is empowered to enact and amend zoning provisions under the grant of powers by the General Assembly of the Commonwealth of Pennsylvania, Act 247, "The Pennsylvania Municipalities Planning Code," July 31, 1968, as amended, hereinafter referred to as "MPC"; and

WHEREAS, this Ordinance is intended to guide future growth and development by regulating land uses within Monroe Township for the improvement of the health, safety, and general welfare of its citizens. It is therefore enacted and ordained by the Board of Supervisors of Monroe Township, Cumberland County, Pennsylvania, as follows:

Article I. Add New Definitions to Section 6.02(A) as follows:

Ambient Noise Level: The baseline environmental noise at a site prior to development, measured by a qualified acoustical engineer over a continuous 72-hour period (including one weekend day), using ANSI standards.

Backup Generator: Natural Gas, diesel, hydrogen fuel cells, Power Storage System, or other non-coal equipment used to generate electricity during a power outage or similar emergency. Backup generators are only to be used during periods of outages, natural disasters, or similar “emergency events” for power generation and for regular reliability testing and exercising.

Data Center: A facility or group of facilities, including its ancillary uses or associated structures located on the same tract or parcel of land, that is predominantly used to house working servers or similar data storage systems and has uninterruptible energy supply or generator backup power, or both, cooling systems, towers, and other temperature control infrastructure, consist of a building or buildings which are occupied primarily by computers and/or telecommunications and related equipment where digital information and/or data is processed, transferred, and/or stored, primarily to and from offsite locations. This use does not include computers or telecommunications related

equipment that is secondary and customarily incidental to an otherwise permitted use on the property, such as servers associated with an office building. This use shall also include cryptocurrency mining, blockchain transaction processing, and server farms. A Data Center may include limited office space associated with facility operations but does not include general business offices or call centers.

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, office and security buildings or structures; storage, renewable energy systems; 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 cooling or holding facilities; pump stations; water towers; external environmental controls (emission controls, noise pollution controls, environmental impact monitoring); internal environmental controls (air conditioning or cooling towers, fire suppression, and related equipment); 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.

Data Center Equipment: The necessary items housed in a Data Center or associated structures located on the same tract or parcel of land for the use including, but not limited to, working servers or similar data storage systems, generators, cooling systems, towers, and other temperature control infrastructure, computers and/or telecommunications and related items where digital information is processed, transferred and/or stored, primarily to and from offsite locations, and e-Waste. This does not include computers or telecommunications related equipment that is secondary and customarily incidental to an otherwise permitted use on the property, such as servers associated with an office building. Data Center Equipment does not include the building shell, lighting, access drive, landscaping, or buffering.

Demand Response: Demand response programs are incentive-based programs that encourage electric power customers to temporarily reduce their demand for power at certain times in exchange for a reduction in their electricity bills.

Emergency Power Outage: "Emergency," as used herein, is defined as an unexpected inadequate supply of electric energy which may result from the unexpected outage or breakdown of facilities for the generation, transmission or distribution of electric power. Such events may be the result of weather conditions, acts of God, or unforeseen occurrences not reasonably within the power of the affected "entity" to prevent.

For the purposes of this Ordinance, an emergency does not occur from a sudden increase in customer demand, an inability to obtain adequate amounts of the necessary fuels to generate electricity, or a regulatory action which prohibits the use of certain electric power supply facilities. Extended periods of insufficient power supply as the result of inadequate planning or the failure to construct necessary facilities does not qualify as an emergency herein. Situations where a shortage of electric energy is projected due solely to the failure of parties to agree to terms, conditions or other economic factors relating to service, will not be considered as emergencies.

Peak Shaving: An energy management strategy that involves reducing electricity use by using alternative power sources during periods of highest demand to avoid peak charges or alleviate stress on the grid.

Operator: The person or entity responsible for the post-construction operation of a Data Center.

Sensitive Receptors: A land use, facility, or population group particularly vulnerable to the negative impacts of noise, vibration, air pollution, and light pollution. For the purposes of this Chapter, Sensitive Receptors shall include, but are not limited to: residential uses, public and private schools, preschools, all day care facilities, health facilities such as hospitals and clinics, nursing, rest or retirement home, or medical residential campus, church or religious institution, playgrounds, parks (including trails), campgrounds, prisons, dormitories, kennels, veterinary office, animal rescues, wildlife rehabilitation centers, community centers, cemeteries, historical sites, recreational facilities, campgrounds, agricultural land, farms with livestock, wetlands, perennial or intermittent streams (i.e. Yellow Breeches Creek), conservation lands, preservation land, open space, PA Fish and Boat Commission “Class A” and “Exceptional Value (EV)” waters, and any residence where such residence is not located on a parcel within an existing industrial, commercial, or unpermitted use as determined by the zoning officer. Furthermore, these protections shall not apply to any Sensitive Receptor established adjacent to an approved Data Center after the date of issuance of the Data Center's certificate of occupancy.

Article II. Add Subsection 10 to Section 3.05(1) as follows:

Data Centers under Industrial and Commercial uses shall comply with the following regulations:

- a. *Pre-Application Review:* The pre-application review requirements specified in section 302 of the Monroe Township Subdivision and Land Development Ordinance shall be required for a data center.
- b. *Phased Data Centers:* All multi-phase Data Center Land Developments shall be depicted on a Master Plan prepared and submitted pursuant to the Plan Processing Procedures specified in the Monroe Township Subdivision and Land Development Ordinance.
- c. *Lot Area Requirements:* Data Centers shall meet the minimum lot size required by the underlying zoning district.
- d. *Minimum Setback Requirements:* The following minimum setback standards are required for all Data Centers and Data Center Accessory Uses. These requirements supersede the requirements of the underlying zoning district and only apply to the building or buildings. The buffer yard setback in section 3.05(1).h applies to all other onsite uses including but not limited to parking areas, access drives, staging areas, loading/unloading areas, utility substations, backup generators, cooling towers and other incidental uses.

Yard	Setback from nonresidential uses or parcels that do not contain Sensitive Receptors	Setback from Sensitive Receptors	
		Gross Building Floor Area Under 100,000 sq. ft.	~~Gross Buildings Floor Area~~ Over 100,000 sq. ft.
Front	100 Feet	300 Feet	300 Feet
Side	60 Feet	300 Feet	300 Feet
Rear	100 Feet	300 Feet	300 Feet
Building to Building	50 Feet		

- e. Street Frontage: The minimum street frontage shall be determined based on the requirements in the underlying zoning district.
- f. Lot Coverage: The maximum lot coverage shall be determined based on the requirements in the underlying zoning district.
- g. Height Limitations: The maximum building height shall be determined based on the requirements in the underlying zoning district.
- h. Screening: All screening shall be in accordance with Section 4.13 of this Ordinance and the following requirements:
 - (1) Location and Screening of Mechanical Equipment: All ground level and roof top mechanical equipment shall meet the following standards in addition to those required by Section 4.29 of this Ordinance:
 - (2) Mechanical equipment shall be fully screened on all sides with acoustical screening, whether the mechanical equipment is located on the roof of any structure. All rooftop equipment that produces sound (e.g., HVAC, cooling towers, generators, and the like) shall be fully screened from view and the screening shall be placed to shield the direction of emitted sound. Such visually solid screen shall be constructed with a design, materials, details, and treatment compatible with those used on the nearest principal facade of the building.
 - (3) Perforation for Ventilated Screening: Acoustical screening for mechanical equipment may incorporate perforated surfaces on screening walls as necessary to permit ventilation of mechanical equipment.
 - (4) Height of Screening of Principal and Accessory Structures:
An earthen berm averaging a minimum of fifteen (15) feet in height above the adjacent average ground level with a maximum side slope of 3:1, provided that the berm shall be covered by a well-maintained all-season natural ground cover and any required screening plantings shall be arranged on the outside and top of the berm. Vegetative screening materials shall be selected based on mature plant heights in relation to the height of the

principal or accessory structure and separation distance to provide full visual screening of the use. A plan prepared by a Registered Landscape Architect shall be submitted with Conditional Use application.

- (5) Composition of Screening: Vegetated earth berms with a minimum height of 15 feet shall be incorporated into the screening design.
 - (6) Truck loading and/or maneuvering areas and dock doors shall not face a residential use or district or a public street.
- i. Buffer Yard: A buffer yard of 300 feet shall be required between parking areas, access drives, staging areas, loading/unloading areas, utility substations, backup generators, cooling towers and other uses incidental to Data Centers or Data Center Accessory uses as measured from the property line of adjacent parcels containing Sensitive Receptors. Vegetative screening shall be placed in the buffer yard.
- (2) Within the required buffer yard, a fifty-foot-wide landscape screen is required and an earthen berm having a maximum slope three feet horizontal to one foot vertical (3:1) and a minimum height of 15 feet above grade. The berm shall be covered by a well-maintained all-season natural ground cover and any required screening plantings shall be arranged on the outside and top of the berm.
 - (3) Stormwater management facilities may be located within the buffer yard but not within the required landscape screen.
 - (4) The landscape screening may be located within the required building setback lines.
 - (5) No impervious surface is permitted within the landscape screening aside from access drives, sidewalks, and associated improvements.
 - (6) Utilities located inside the property shall not be permitted to be located within the landscape screening in order to maintain a cohesive landscape screening, protect landscaping, and preserve open space. Utilities should be co-located when feasible to minimize the number of utility crossings through the required landscape screening, particularly when such crossings cannot be avoided.
 - (7) Where a lot line drainage or utility easement is required, the screening yard shall be measured from the inside edge of the easement.
 - (8) Landscape screening shall not include environmental encumbrances such as, but not limited to, wetlands, wetland transition areas, streams, riparian buffers, and flood hazard areas.

- (9) Plantings in the landscape screening shall include a minimum of two rows of dense screens of evergreen and deciduous trees having a minimum height of 8 feet above the top of the berm.
- (10) Plant material within landscape screening plantings shall meet the following requirements:
 - a. Shall be arranged in groupings to allow for ease of maintenance and to provide a natural appearance.
 - b. Shall be chosen to ensure year-round vegetation.

j. Noise: In addition to the standards of Section 4.17(A).2, Data Centers shall comply with the following regulations. Where a conflict exists between Section 4.17 and this section, the more stringent regulation shall apply.

- (1) Sound Levels
 - a. The maximum property-line noise limits at the boundary of the existing or developed property containing a Sensitive Receptor shall not exceed 50 dBA during the day (7 am – 10 pm) and 40 dBA during the night (10 pm – 7 am).
 - b. The maximum sound levels listed above do not apply to emergency alerts, emergency work to provide electricity, water, or other public utilities when public health or safety is involved, snow removal, or road repair.
 - c. The maximum noise-level limits cannot exceed pre-development ambient noise levels by greater than 10 dBA.
- (2) A noise reduction barrier or device shall be required when it is inconclusive that noise level tests do not conform to acceptable noise levels.
- (3) The limitations herein shall not apply to any Sensitive Receptor that is established adjacent to the Data Center after the date of issuance of a certificate of completion or occupancy for the applicant's operation.
- (4) Mechanical equipment, whether on a roof top, on the ground level, or elsewhere on the exterior of the lot abutting a lot: (i) with an existing residential use; or (ii) within a Residential District any, shall be screened on all four (4) sides by an acoustical barrier. For purposes of this section, an acoustical barrier is defined as an exterior solid or louvred wall containing sound-proofing materials designed to absorb noise and protect neighboring properties from noise pollution.

- (5) Back-up Generators shall have sound attenuation enclosures to achieve noise reductions so as not to exceed 50 dBA and 50 dBC during any operating period as measured from the property line of the use. Maximum decibel levels listed for backup generators shall apply during times of power outage.
- (6) Low-Frequency and Infrasound Standards. To mitigate ground-borne and airborne low-frequency noise produced by mechanical chillers, backup power systems and or other components of the Data Center, the following shall apply:
 - a. Metric: In addition to dBA limits, the facility shall not exceed a limit of 55 dBC, 60 dBG and 80 dBZ at the property line of any Sensitive Receptor.
 - b. Differential Standard: The difference between the measured dBC and dBA levels shall not exceed 20 dB. A greater differential shall be considered evidence of excessive low-frequency noise requiring immediate engineering mitigation.
 - c. Measurement: Measurements shall be taken using a Type 1 Sound Level Meter capable of unweighted (Z-weighted) or C-weighted linear frequency response down to 2 Hz.
- (7) Sound & Vibration Studies. The Sound & Vibration studies shall include the values at all property lines.
- (8) Mechanical equipment, whether on a roof top, on the ground level, or elsewhere on the exterior of the lot abutting a lot: (i) with an existing residential use; or (ii) within a Residential District any, shall be screened on all four (4) sides by an acoustical barrier. For purposes of this section, acoustical barrier is defined as an exterior solid like concrete or louvred wall containing sound-proofing materials designed to absorb noise and protect neighboring properties from noise pollution.
- (9) Rubber mats (or other type of anti-vibration pads) shall be used under cooling fans, generators and other equipment that cause vibrations.
- (10) Mitigation measures shall be shown on the Land Development Plan and said plans shall be designed in compliance with all mitigation measures identified by the sound and vibration studies. Each Plan shall include a note stating whether there are noise mitigation measures identified by the noise study being implemented with the plan, and if so, such plans shall identify and label the noise mitigation measures and reference the sound and vibration studies. The Township has the authority to interpret and enforce

the Pre- and Post-Construction Study and any necessary noise mitigation measures.

(11) Tonal noise penalty:

- a. Each sound study shall include a narrow band frequency analysis for the purpose of identifying audible tones generated by the use. Audibility of tones shall be calculated in accordance with International Organization for Standardization Technical Specification (ISO/TS) 20065:2022 – Acoustics – Objective Method for Assessing the Audibility of Tones in Noise – Engineering Method.
- b. If the decisive audibility of any narrow-band averaged spectrum is 10 dB or more, a 6 dB penalty shall be applied to the overall A-weighted sound measurement for purposes of determining compliance with the paragraphs above.

(12) The applicant shall conduct multiple phased sound and vibration studies conducted by a 3rd party professional acoustical expert to evaluate both low-frequency and high-frequency ranges to ensure comprehensive assessment of potential noise impacts on surrounding properties and wildlife. The studies shall examine all exterior utility functions of the building (rooftop and ground-mounted) that produce sound. The studies shall evaluate and report anticipated decibel levels when all emergency power generation equipment is running, including backup generators. Study reports shall be submitted to the Township within 14 days of performed studies. The studies shall be conducted at the following phases:

- a. Preliminary Study: Conducted as part of the Conditional Use process and shall include recommended mitigation materials or systems as needed to meet the aforesaid sound and vibration limits.
- b. Pre-Construction Study: Conducted immediately prior to the zoning permit submission based upon the proposed user or users of the Data Center and Data Center Accessory Uses depicted on the Land Development Plan. Any mitigation materials or systems recommended by the interim sound study shall be incorporated into the construction plans for the use.
- c. As-built Study:
 - i. Conducted six (6) months after issuance of the certificate of occupancy and prior to the final escrow release for any land development phase.

- ii. Conducted every 5 years after issuance of the certificate of occupancy.
 - iii. The Township may require additional testing, at the Applicant's expense, whenever substantial modifications are made to the facility or whenever a documented noise complaint indicates potential noncompliance..
- (13) The above requirements also apply to all Data Center Accessory Uses.

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Monroe Township
Proposed Data Center Ordinance Text Amendment
2026.10.23

Article	Section #	Subject	Proposed Ordinance Amendments	Reference
I	-	Definitions	Revision and addition of several definitions to provide clarification on regulated use	Resident/Township
II	3.05(1).10.c	Setbacks	Added setbacks from Sensitive Receptors.	Resident/Township
II	3.05(1).10.e	Lot Coverage	Removed to avoid conflict with underlying districts	Township
II	3.05(1).10.f	Height Limitations	Removed to avoid conflict with underlying districts	Township
II	3.05(1).10.g	Screening	Revised to provide for 15' high berm	Resident/Township
II	3.05(1).10.h	Buffer Yard	Revised to provide for 300' buffer yard from Sensitive Receptors	Resident/Township
II	3.05(1).10.i	Noise	Added sound level restrictions, mitigation requirements, studies and As-built requirements	Resident/Township
II	3.05(1).10.j	Lighting		
II	3.05(1).10.k	Aesthetic Treatments		
II	3.05(1).10.l	Energy		
II	3.05(1).10.m	Water, Sewer & Wastewater		
II	3.05(1).10.n	Cooling System Requirements		
II	3.05(1).10.o	Safety		
II	3.05(1).10.p	Emergency Management Response		
II	3.05(1).10.q	Environmental & Community Impact Analysis (ECIA)		
II	3.05(1).10.r	Environmental Impact Assessment		
II	3.05(1).10.s	Threatened & Endangered Species		
II	3.05(1).10.t	Riparian Forest Buffer		
II	3.05(1).10.u	Parking		
II	3.05(1).10.v	Expansion Cap		
II	3.05(1).10.w	Violations, Compliance & Enforcement		
II	3.05(1).10.x	Decommissioning/Removal		
II	3.05(1).10.y	Community Benefits Agreement		
II	3.05(1).10.z	Performance & Mitigation		
III	Table 3.01	Permissible Uses		
VI	-	Additional Provisions		