SECTION 1. Definitions

DATA CENTER

A facility used primarily for or intended to be used primarily for the housing, operation, and/or co-location of computer, network, and communications equipment and for handling, storing, transmitting, and backing up the data necessary for the operation of a business or organizational entity. A data center generally includes systems, servers, appliances, and other associated components related to digital data operations, as well as environmental controls (air conditioning, generators, fire suppression, etc.), redundant/backup power supplies, electrical substations, redundant data communications connections and high security.

DISASTER RECOVERY FACILITY

A building used for the continued operation of an off-site business in the event of a natural or manmade disaster that causes the interruption of that business. Such facilities may include digital storage of business documentation, records, and other information.

SECTION 2. Schedule of uses

Data Centers and Disaster Recovery Facilities.

Disaster recovery facilities which are permitted as principal permitted uses in the ED Economic Development District and the M-1 Industrial District

Data Centers are permitted as a principle permitted use in the M1 District.

Data Centers are permitted as a Conditional use (CU) in the Economic Development District.

Disaster Recovery facilities and Data centers shall be subject to the following additional standards:

In the ED & M1 Districts, the maximum building size is ______ square feet of gross floor area. However, this size limit may be exceeded with conditional use (CU) hearing & approval in accordance with _____.

SECTION 3. Submission Checklist for Data Centers. Applicants must provide comprehensive analyses, including but not limited to:

- A) Provide evidence of compliance with the criteria for the main entrance feature, foundation plantings, building façade, and building fenestration (see Section 3 and Section 4), which includes Artist's rendering(s) and includes elevations. When located adjacent to residential areas, the artist's rendering(s) must also depict and provide credible evidence of compliance with the buffer yard criteria (Section 6) and adequacy of equipment visual screening (Section 5).
- **B)** If fencing is proposed, the applicant must provide evidence of compliance with the standards outlined in Section 7.
- C) The applicant must thoroughly demonstrate how the data center's utility needs will be met, including water usage and electrical connectivity (see Section 11).
- **D**) A noise study, prepared and certified by a professional noise engineer, must be submitted to the Township Supervisors, Township Planning Commission, and Township Engineer for review. The study must demonstrate compliance with the noise standards specified in Section 12.
- E) A lighting plan must be submitted that complies with Chapter 32: Outdoor Lighting Standards and SALDO Section 22-1020.

SECTION 1. Definitions

DATA CENTER

A facility used primarily for or intended to be used primarily for the housing, operation, and/or co-location of computer, and communications equipment and for handling, storing, and backing up the data necessary for the operation of a business or organizational entity. A data center generally includes as well as environmental controls (air conditioning, fire suppression, etc.), redundant/backup power supplies, redundant data communications connections and high security.

DISASTER RECOVERY FACILITY

A building used for the continued operation of an off-site business in the event of a natural or manmade disaster that causes the interruption of that business. Such facilities may include digital storage of business documentation, records, and other information.

SECTION 2. Schedule of uses

Data Centers and Disaster Recovery Facilities. Data centers and disaster recovery facilities which are permitted as principal permitted uses in the ED Economic Development District and the M-1 Industrial District shall be subject to the following additional standards:

SECTION 3. Submission Checklist for Data Centers

N/A

SECTION 4. Main Entrance Feature	SECTION 4. Main Entrance Feature
	N/a
Main Entrance Feature	
A) Main Entrance Design	
A) Wall Entrance Design	
1. A data center building shall include a main entrance feature that is differentiated from the remainder of the building façade by a change in building material, pattern, texture, color, or accent material.	
2. The entrance feature shall also either project from or recess into the adjoining building plane.	
B) Foundation Plantings or Enhanced Landscaping	
 Main entrance features shall incorporate foundation plantings consisting of a mix of evergreen and deciduous shrubs along at least 50% of the length of the façade. These foundation plantings are in addition to any required buffers or landscaping mandated by Township Ordinances. In lieu of foundation plantings, any required buffering and parking area landscaping may be provided at an enhanced rate of 20% more plant units than what is required pursuant to 	
SECTION 5. Building Facades and Fenestration	SECTION 5. Building Facades & Fenestration N/a
Building Façades & Fenestration	
A) Differentiated Surfaces	
 Principal façades must incorporate differentiated surfaces at horizontal linear intervals that may vary in frequency but must occur at least every 150 horizontal feet or no less frequently than three times the average height of the building. The building façade must incorporate a change in at least one of the following design elements: a. building material, b. pattern, c. texture, d. color, or e. accent material. 	
 B) Fenestration 1) Windows and Doors a. Windows, doors, or similar fenestration design features, such as faux windows, must be distributed horizontally and vertically across the façade. b. Fenestration must comprise a minimum of 30% of the individual façade. 	N/a

POSSILBLE NEW CRITERIA EXISTING CRITERIA

SECTION 6: Equipment Visual Screening

Equipment Visual Screening

A) Enclosure of Equipment

- 4. To provide visual screening and reduce noise levels, any equipment necessary for cooling, ventilating, or operating the facility, including power generators or other power supply equipment, must be fully enclosed.
- 5. If full enclosure is deemed mechanically unfeasible as evidenced by a technical submission and corroborative review by the Township Engineer, the equipment shall be screened by a wall, fence or similar barrier.
- B) Ground-Level Equipment and Electrical Substations: Any ground-level equipment, as well as any accessory electrical substation, must be screened from view from abutting lots and rights-of-way by a visually solid wall or a building. Substations shall be screened from adjacent major roads or residentially zoned/planned properties with a ten-foot tall opaque fencing, or a similarly sized wall facing residentially zoned/planned properties.
- 1. To provide visual screening and reduce noise levels, any equipment necessary for cooling, ventilating, or operating the facility—including power generators, accessory electrical substations, or other power supply equipment—must be fully enclosed.
- 2. If full enclosure is deemed mechanically unfeasible, as evidenced by a technical submission and corroborative review by the Township Engineer, the equipment must be screened by a visually solid barrier such as a wall, fence, or building. Substations located near major roads or residential areas must include a ten-foot-tall opaque fence or similarly sized wall.
- 3. In all cases listed above, the screening or enclosures must simultaneously serve as an "acoustical barrier" is defined as an exterior solid or louvred wall containing soundproofing materials designed to absorb noise and protect neighboring properties from noise pollution.

SECTION 7: Adjacent to Residential Setbacks

Where a Data Center or Disaster Recovery Facility is Located Adjacent to a Residential (RC, R1, R2) Zoning District, or an existing residential use, the Following Conditions Shall Apply:

A) Minimum Distance from Residential

- 1. Any data center building must be located at least 200 feet from the lot line of a Residential district or a property developed with an existing residential use.
- 2. If located on the ground, any equipment for cooling, ventilating, or otherwise operating the facility, including any power generator, electrical substations, or other power supply equipment, must be located at least 300 feet from the lot line of an Residential district or a property developed with an existing residential use.

SECTION 6: Equipment Visual Screening

N/a

SECTION 7: Adjacent to residential.

Where a data center or disaster recovery facility is located adjacent to a residential or institutional property or zoning district, the following conditions shall apply:

(1)

No barbed or razor wire shall be visible from neighboring residential or institutional properties or districts.

(2)

Any backup generators or power systems shall be either:

(a)

Fully enclosed within the principal structure.

(h)

Located no closer than 200 feet from the nearest residential property or district.

DRAFT DATA CENTER & DISASTER RECOVERY FACILITY STANDARDS – 11.19.2024 POSSILBLE NEW CRITERIA EXISTING CRITERIA

TOSSIEDEE NEW CRITERIA	LAISTING CRITERIA
SECTION 8: Fencing Standards	SECTION 8: Fencing Standards
Fencing Standards	
 Fencing shall incorporate high-quality design and materials that are architecturally compatible with the design of the principal structures and surrounding landscape & façade coloring. Evidence of this compatibility shall be submitted to the Township. No barbed or razor wire shall be visible from the perimeter lot line of any neighboring residential (RC, R1, R2) properties or districts. 	N/A
SECTION 9: Buffer Yard Requirements	SECTION 0. Duffer Vand Deguinements
Buffer Yard Requirements The intent is to visually obscure or screen data centers from contiguous residential properties or properties with existing residential use(s). A buffer yard plan shall be submitted to the township to provide credible evidence that the standards in this section shall be achieved.	SECTION 9: Buffer Yard Requirements N/A
 Screening Requirements: a. When a data center development adjoins a property that is a residential zone (RC, R2, or R1) 	
or a properties with an existing residential use-not currently developed with industrial uses, this use shall include a buffer yard that effectively screens the site through a combination of landscaping and screening techniques	N/A
 b. A 100-foot minimum buffer yard is required. c. The buffer width may be reduced to no less than 50 feet if mature existing trees (exceeding 30 feet in height), earthen berms, and/or screen walls are included. Earthen berms shall be 	
landscaped with native Pennsylvania shrubs and have a slope not steeper than 2:1. d. The preservation and use of existing trees as buffers is preferred.	
e. Between 40% and 70% of buffer plantings shall be evergreen trees, with a minimum height of eight feet at the time of planting.	
f. No more than 30% of buffer plantings should be understory deciduous trees.g. Utilities, equipment, and stormwater management facilities shall not be located in the buffer	
yards. If a utility must cross the buffer, it shall be the minimum traversal distance and then only if every precaution is taken to make up for the lost visual screen by utilizing a screen wall.	

EXISTING CRITERIA

SECTION 10: Floodplain, airports, ancillary uses, railroads

- No data center or disaster recovery facility or associated structures, including backup generators and fuel storage, may be located between the 100-year and 500-year flood elevations as shown in the most recent Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency for the Township.
- No data center or disaster recovery facility shall be located within the conical, horizontal, transitional, primary or approach surface zones for an airport.
- Ancillary uses permitted in a data center or disaster recovery facility include offices and computer stations necessary for the operation of the facility, uninterrupted power source (UPS) rooms, back-up generators, and fuel storage, but may not include company offices, retail uses, or customer service operations.
- No data center or disaster recovery facility shall be located within 800 feet of a railroad, railroad station or railroad yard and freight station.

SECTION 11: Utilities

Utilities

The applicant shall thoroughly demonstrate how the data center's utility needs will be met, including water usage and electrical connectivity. Applications are expected to provide information related to the development's electrical load requirements and further illustrate that any needed expansion of utilities can be done in a manner that minimizes impacts to surrounding properties and is compatible with existing and proposed nearby and adjacent developments.

A) Power

- 1. All new electric lines (both transmission and distribution) must be underground.
- 2. Applications shall clearly demonstrate, to the greatest extent possible, how electricity will be provided to accommodate the project's development and how the project's overall power demand relates to the overall regional network.
- a. This should include any on-site or off-site need for a new substation, expansion of an existing substation, switching station, and/or any other electrical infrastructure.

B) Water

- 1. Applications shall demonstrate the adequacy of water for firefighting situations, without impacting local private wells or public water sources.
- 2. Construction activities, including any required blasting, shall not impact the public water supply, nearby wells, or groundwater aquifers.
- 3. Water shall be provided by a public utility, and the applicant shall provide evidence of a will-serve notice to the municipality.

SECTION 10: Floodplain, airports, ancillary uses, railroads

- No data center or disaster recovery facility or associated structures, including backup generators and fuel storage, may be located between the 100-year and 500-year flood elevations as shown in the most recent Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency for the Township.
- No data center or disaster recovery facility shall be located within the conical, horizontal, transitional, primary or approach surface zones for an airport.
- Ancillary uses permitted in a data center or disaster recovery facility include offices and computer stations necessary for the operation of the facility, uninterrupted power source (UPS) rooms, back-up generators, and fuel storage, but may not include company offices, retail uses, or customer service operations.
- No data center or disaster recovery facility shall be located within 800 feet of a railroad, railroad station or railroad yard and freight station.

SECTION 11: Utilities

N/A

SECTION 12: Sound/Noise

The volume of sound inherently and recurrently generated by the use shall not exceed the standards in this Section at the property boundary of the receiving land use. In addition to the table below, the use shall also comply with all applicable standards Chapter 10 Part 2 Noise and Nuisances. If any provision is found to conflict with any provisions of Chapter 10 Part 2: Noise and Nuisances, or any other local ordinance, or Pennsylvania or federal law, the provision which is more restrictive or which establishes the higher standard shall control.

- 12. **Noise/Sound**: Applicants shall submit a noise/sound study, prepared and certified by a professional noise/sound engineer. The study must be submitted to the Township Supervisors, Township Planning Commission, and Township Engineer for review and must demonstrate compliance with the noise standards in this section
 - A. The noise study is shall be strongly encouraged to be updated and resubmitted to the Township within 30 days of occupancy of any data center building.
 - B. Noise studies shall factor in all data center related equipment, including generators, and substations, both during testing periods and general emergency operations.
 - B. Applicants shall strongly encouraged to provide a continuous noise monitoring devices around the property to transmit actual noise levels at property boundaries on a continuous basis to a remote, publicly accessible online database.
 - C. Sound levels shall be measured with a sound level meter equipped with a modern octave band filter according to standards prescribed by the American National Standards Institute (ANSI S1.4) or the International Organization for Standardization (ISO 1996).
 - D. Control of Intermittent Sounds: Objectionable sounds of an intermittent nature shall be controlled to prevent them from becoming a nuisance to adjacent uses.

Intermittent sounds are considered "objectionable" and/or a nuisance if they exceed a maximum of 10 dB above background noise levels at a frequency of occurrence greater than once every hour.

E) **Maximum Sound Pressure Levels**: Maximum sound pressure levels shall not exceed those provided in the following table.

Octave Band (cycles per second)	Maximum Sound Pressure Level (dB) (0.0002 dynes per square centimeter)
0-74	72
75-149	67
150-299	59
300-599	52
600-1,199	46
1,200-2,399	40
2,400-4,800	34
Above 4,800	32

SECTION 12: Sound/Noise

The volume of sound inherently and recurrently generated by the use shall not exceed the standards in this Section at the property boundary of the receiving land use.

(1)

Sound levels shall be measured with a sound level meter and associated octave band filter manufactured according to standards prescribed by the American Standards Association on May 12, 1958.

(2)

Objectionable sounds of an intermittent nature shall be controlled so as not to become a nuisance to adjacent uses.

(3)

Octave Band (cycles per second)	Maximum Sound Pressure Level (dB) (0.0002 dynes per square centimeter)
0-74	72
75-149	67
150-299	59
300-599	52
600-1,199	46
1,200-2,399	40
2,400-4,800	34
Above 4,800	32

DRAFT DATA CENTER & DISASTER RECOVERY FACILITY STANDARDS – 11.19.2024 POSSILBLE NEW CRITERIA EXISTING CRITERIA

SECTION 13: Equipment Sound Requirements and Testing Times

- 1. For data centers on property adjacent to residentially developed property, an approved plat, or a zoning district permitting residential uses, any data center mechanical equipment located on the property, whether on a rooftop, at ground level, or elsewhere on the exterior, must be screened on all four sides by an acoustical barrier.
- 2. For purposes of this section, an "acoustical barrier" is defined as an exterior solid or louvred wall containing soundproofing materials designed to absorb noise and protect neighboring properties from noise pollution.
- 1. Generator Testing Adjacent to Residential. For this use on property adjacent to property with existing residential development, or Zoning District permitting residential uses, the following standard applies to generator testing:
 - a. Generator testing is limited to between 5:00 p.m. and 7:00 a.m. between May 1 and September 30;
 - b. Generator testing is limited to between 11:00 a.m. and 5:00 p.m. between October 1 and April 30; and
 - c. Except for generator testing or commissioning activities, generator use is limited to backup/emergency use only.

SECTION 14: Lighting

1. Light and Glare

This use shall comply with the lighting regulations in Chapter 32: Outdoor lighting standards &/or SALDO 22-1020.

2. No direct or reflected glare or heat from any source shall be detectable in objectionable amounts beyond the boundaries of the zoning district in which the use is located or at the boundary with an adjacent residential property.

SECTION 15: Emissions & Ground Vibrations

- 1. The emission of any smoke, odorous gases or other odorous matter or steam in quantities that are offensive or noisome at any point along the boundary with an adjacent zoning district or residential property shall be prohibited.
- 2. Every use shall be operated so that ground vibration inherently and recurrently generated is not perceptible, without instruments, at any point along any boundary of the zoning district in which the use is located or at the boundary with an adjacent residential property.

SECTION 13: Equipment Sound Requirements and Testing Times

N/A

SECTION 14: Lighting

No direct or reflected glare or heat from any source shall be detectable in objectionable amounts beyond the boundaries of the zoning district in which the use is located or at the boundary with an adjacent residential property.

SECTION 15: Emissions & Ground Vibrations

- The emission of any smoke, odorous gases or other odorous matter or steam in quantities that are offensive or noisome at any point along the boundary with an adjacent zoning district or residential property shall be prohibited.
- Every use shall be operated so that ground vibration inherently and recurrently generated is not perceptible, without instruments, at any point along any boundary of the zoning district in which the use is located or at the boundary with an adjacent residential property.