SECTION 11-31-36: DATA CENTERS

SECTION 11-31-36: - DATA CENTERS

A. **Applicability**.

1. ***Data Center as an Accessory Use***. A Data Center that meets all of the criteria (a through c below) may be considered an accessory use and is not subject to the requirements of this Section 11-31-36. Accessory use criteria:

   a. The Data Center exclusively serves the enterprise functions of the on-site property owner or tenant.

   b. The Data Center does not lease data storage or processing services to third parties.

   c. The Data Center occupies no more than 10% of the total gross floor area of all buildings on the site.

2. ***Data Center as a Principal Use***. Data Center, as defined in Section 11-86-5, is prohibited in every zoning district, except that a Data Center may be permitted in the Planned Area Development (PAD) Overlay District that is used in combination with the General Industrial (GI) or Heavy Industrial (HI) base zoning district only if the Data Center is specifically permitted by the City Council with the approval of the rezoning to the subject PAD Overlay District. Additionally, all Data Centers as a principal use shall be located, developed, and operated in compliance with the Land Use Regulations in Article 2 and the following standards.

B. **Purpose**. The purpose of this Section is to:

1. Promote public health, safety, and general welfare by ensuring that potential adverse impacts from Data Centers and their associated mechanical equipment, including impacts on the availability, capacity, and distribution of utility services, including water, wastewater, gas, and electricity are mitigated; and

2. Minimize the physical, environmental, and visual impacts of Data Centers and their associated mechanical equipment on surrounding areas by promoting high-quality design and ensuring compatibility with adjacent land uses and the community.

C. **Permitted Zoning Districts.**

1. ***PAD Overlay District Required***. A Data Center may be permitted within a PAD Overlay District when applied in combination with the General Industrial (GI) or Heavy Industrial (HI) base zoning districts, but only if specifically authorized by the City Council as part of the PAD Overlay District approval.

2. ***Data Center as an Accessory Use***. A Data Center may be permitted as an accessory use in the Commercial and Employment zoning districts without requiring a PAD Overlay District and is not subject to the requirements of this Section 11-31-36.

D. **Relation to Other Regulations.** Where a conflict occurs between the provisions of this Section and any other City Code, ordinance, resolution, or regulation, the more restrictive provision shall control.

E. **Application Requirements.** In addition to the application requirements of Section 11-67-2 and application guides posted on the Development Services website, all development applications for a Data Center shall include all the following:

1. ***Project Narrative***. A project narrative that describes how the Data Center is consistent with the General Plan, any other applicable City plan or policies, and is compatible with surrounding uses.

2. ***Operational Plan***. An operational plan that provides evidence of compliance with all zoning, building, and fire safety regulations.

3. ***Good Neighbor Policy.*** A good neighbor policy describing all the following:

    a. The measures that will be taken to ensure ongoing compatibility with adjacent uses including sound attenuation, lighting control measures, vehicular access and traffic control, and litter control measures.

    b. Complaint response procedures, including the name and telephone number of the person responsible for the operation of the facility; and procedures for investigation, remedial action, and follow-up.

4. ***Water Consumption and Thermal Management Report.*** A water consumption and thermal management report which describes all the following:

    a. *Cooling System*. The proposed cooling system for the Data Center and whether the Data Center will be water-cooled or air-cooled.

    b. *Water Usage*.

        i The estimated amount of total water in acre feet that will be used by the proposed project and associated land use for a calendar year, along with a monthly breakdown of projected water demand for each month within that year.

        ii The estimated amount of water in million gallons per day that will be used by the proposed project during a typical 24-hour operational period under normal conditions, including anticipated usage patterns

        iii The estimated amount of water in million gallons per day to be used by the proposed project in a 24-hour period on its highest water consumption day.

        iv The estimated highest instantaneous flow rate in million gallons per day that will be used by the project along with the minimum, average, and maximum durations and frequencies of these flow conditions.

        v Indicate high consumption operational flexibility. Identify if high water demands can be aligned with the City's low-demand periods.

        vi The number of the proposed water meters and the size of each water meter for the proposed project.

        vii Proof that the applicant or property owner submitted a complete Sustainable Water Service Application to the City's Water Resources Department.

5. ***Wastewater Report.*** Proof that the applicant or property owner submitted a complete Industrial User Survey, or its equivalent under City Code Title 8, Chapter 4 (Sanitary Sewer Regulations) to the City's Water Resources Department.

6. ***Electric and Natural Gas (Energy) Service Report***. If located in the City's service area for electric or natural gas utility services:

a. The estimated annual and monthly demand for electric and natural gas utility services.

b. An assessment of future energy needs for the proposed project.

7. ***Initial Sound Study*.** An initial sound study performed by a third-party acoustical consultant which documents all the following:

a. The baseline sound levels on the project site.

b. The baseline sound levels measured at the property line of the nearest residential zoning district, residential use, or other sensitive uses as reasonably determined by the Planning Director.

8. ***Citizen Participation***. In addition to the Citizen Participation requirements of Section 11-67-3, all the following Citizen Participation measures are required:

a. *Neighborhood Meeting.*

i The applicant shall hold a minimum of two (2) neighborhood meetings with residents to describe the project, including the project design, proposed sound-mitigation, lighting control measures, vehicular access and traffic control, and litter control measures.

ii. A representative of the developer or owner with decision-making authority on the design of the Data Center shall attend the neighborhood meetings.

b. *Neighborhood Meeting Notification.*

i *Mailed Notice.* The applicant shall notify all property owners and homeowners' associations within a half-mile radius of the exterior boundary of the property that is the subject of the application, based on the last assessment.

ii *Notice Timeframe.* Written notice shall be provided by first class mail a minimum of 15-days prior to each neighborhood meeting.

c. *Site Posting.*

i The applicant shall post a sign on the proposed Data Center site at least 15-days before each neighborhood meeting.

ii The sign shall be located along an arterial street or other high-visibility location as reasonably determined by the Planning Director.

iii The sign shall include all the following content and shall be reviewed and approved by the Planning Director before installation:

(1) The applicant name and contact information.

(2) A brief description of the Data Center project.

(3) The date, time, and location of the neighborhood meeting.

(4) The applicant shall remove the sign after the neighborhood meeting(s), but not sooner.

F. **Development Standards.**

1. ***Modifications and Deviations Not Permitted***. The development standards contained within this Section and the development standards contained within Chapter 7 of the Zoning Ordinance, when applied to a Data Center, may not be modified through a Planned Area Development (PAD) Overlay, Bonus Intensity Zone (BIZ) Overlay, Alternative Compliance, or Special Use Permit (SUP), except for the maximum building height specified in Subsection (3) below.

2. ***Separation from Residential Zoning Districts and Residential Uses.*** A Data Center and all associated mechanical equipment, including but not limited to battery storage, power generation, cooling, ventilating, or other equipment that supports the Data Center, shall be located at least 400 feet from the property line of the nearest residential zoning district, residential use, or other sensitive use as reasonably determined by the Planning Director.

3. ***Height.*** The maximum height of a Data Center, including all associated equipment, is 60 feet.

4. ***Building Placement and Design.*** In addition to the development standards contained within Chapter 7 of the Zoning Ordinance, a Data Center shall adhere to all the following standards:

    a. *Quality Development Design Guidelines.* Be designed in compliance with Chapter 5 of the City's Quality Development Design Guidelines.

    b. *Orientation.* The Data Center's primary (front) façade shall be oriented towards adjacent arterial roadways and intersections.

    c. *Building Design Based on Sound Study.*

        i Based on the results of the initial sound study, the Data Center shall be designed and built to incorporate sound mitigation methods sufficient to prevent the sound levels emanating from the Data Center (as determined by a third-party acoustical consultant) from exceeding the ambient noise levels at the property line of the nearest residential zoning district, residential use, or other sensitive use as determined by the Planning Director that were observed in the baseline study.

        ii Design specifications for such sound mitigation shall be provided to the City and incorporated into the building design before building permit approval.

5. ***Architectural Design.*** In addition to the requirements of Chapter 7 of the Zoning Ordinance, a Data Center shall adhere to all the following standards:

    a. *Quality Development Design Guidelines*. Be designed in compliance with Chapter 5 of the City's Quality Development Design Guidelines.

    b. *All Side Architecture.* Architectural detailing on façades may vary depending on visibility and orientation. However, all façades that are publicly visible—whether from the street, neighboring properties, or public vantage points—shall have architectural detailing equivalent to the primary façade.

    c. *Multi-planar Façades*. In addition to the Site Planning and Design Standards of Chapter 7, a Data Center shall include multi-planar façades every 150 feet which are offset a minimum three (3) feet vertically and horizontally from the main building façade.

d. *Glazing Requirements*. A Data Center building shall incorporate windows or glass panels on a minimum of 40% of the front façade and 15% on all other facades.

e. *Architectural Features.* Architectural features shall be integrated into the design of Data Center buildings to create visual interest and establish a cohesive architectural identity—particularly at entryways and areas of public interface. All buildings shall incorporate at least five (5) of the following architectural features:

i *Overhangs*. Overhangs shall project a minimum three (3) feet from the building façade.

ii *Canopies*. Canopies shall extend a minimum four (4) feet from the building façade.

iii *Arcades*. Arcades shall provide a clear depth of six (6) feet and a minimum height of 10 feet.

iv *Window Shrouds*. Window shrouds shall project a minimum of six (6) inch around the entire window frame.

v *Raised Corniced Parapets Over Primary Entrances.* Raised corniced parapets shall extend a minimum of 18 inches above the adjacent roofline and six (6) inches horizontally from the wall.

vi *Tower Elements*. Tower elements shall be either one (1) story taller than the adjacent massing.

vii *Frameless Corner Glass*. Each glass wall shall be a minimum eight (8) feet wide, with a seamless corner radius or joint.

viii *Flying Roof Forms*. Roofs elements shall have a slope of at least 15 degrees and project a minimum four (4) feet beyond the main wall.

ix *Murals*. Murals shall encompass an area of 50 square feet.

x *Decorative Architectural Grilles, Laser-Cut Metal Screens, or Louvres*. Decorative architectural grilles, laser-cut metal screens, or louvres shall be a minimum four (4) feet wide or 12 square feet in area.

xi *Architectural Lighting*. Architectural lighting shall illuminate at least 25% of the primary façade length or highlight a minimum of three (3) distinct architectural components.

xii Other architectural feature approved by the Planning Director.

6. ***Truck Docks, Loading, and Service Areas***.

a. Truck docks, loading, and service areas shall not face or be visible from public rights-of-way or residential uses.

b. When possible, buildings should be used to screen truck docks, loading, and service areas.

c. Where building locations do not offer screening or in the case of phased development plans, truck docks, loading, and service areas shall be fully screened by a solid masonry wall at least eight (8) feet in height.

7. ***Fences and Freestanding Walls***. In addition to the development standards of Section 11-30-4, Data Centers shall adhere to all the following standards:

   a. *Architectural Compatibility*. Walls and fences shall be designed to complement the architectural style of the Data Center and surrounding development.

   b. *Articulation.* Walls and fences shall be articulated every 40 feet through the use of either of the following:

      i A column that is offset a minimum eight (8) inches from the horizontal plane of the wall or fence and extends a minimum eight (8) inches above the main body of the wall or fence.

      ii A landscape pocket which is three (3) feet deep by five (5) feet wide.

   c. *Decorative Cap*. All wall or fence columns shall have a decorative cap.

   d. *Prohibited Materials*.

      i The use of barbed wire, razor wire, embedded glass shards, or ultra barrier is prohibited.

      ii The use of chain link or electrified fencing may only be used for internal security purposes and shall be fully screened from public view.

8. ***Mechanical Equipment.*** Mechanical equipment, including but not limited to battery storage, power generation, cooling, ventilating, or other equipment that supports the Data Center, shall adhere to all the following standards:

   a. *Screening*. Be screened to reduce visual and noise impact using one (1) or more of the following methods:

      i Integrated into the building architecture and screened by a wall that appears as a natural extension of the building.

      ii With a solid masonry wall at least eight (8) feet in height or tall enough to fully screen the tallest piece of equipment.

   b. *Location*. Be located away from primary entrances, public-facing façades, residential uses or zoning districts, private or public roadways, and when possible, at the rear or side of the building.

   c. *Architectural Consistency*.

      i. Screening elements shall be designed as a seamless extension of the Data Center's architecture, avoiding exposed industrial-looking enclosures.

      ii. Screening elements shall use materials and colors that match the primary Data Center building.

9. ***Substation Screening.***

   a. *Height.*

      i. Substations, whether private or public, shall be screened to a height at least one (1) foot above the tallest piece of ground-mounted equipment.

      ii. If the required screen wall exceeds 10 feet in height, vertical articulation is permitted, provided that:

(1) A line-of-sight study demonstrates that the tallest piece of ground-mounted equipment is fully screened from public viewpoints at multiple angles; and

(2) The vertical modulation does not exceed 15% of the wall's total height.

b. *Enclosure Design.* Substations, whether private or public, shall be screened using walls, fencing, berming, landscaping, or other alternative methods.

i. *Screen Walls 10 Feet in Height or Shorter.* Substation screen walls that are 10 feet in height or shorter shall comply with the development standards in Section 11-31-16(F)(7) and Section 11-30-4 for Fences and Freestanding Walls, and be designed to match any proposed publicly facing wall within the development**.**

ii. *Screen Walls Greater than 10 Feet in Height*. Substation screen walls greater than 10 feet in height shall:

(1) Consist of a 10-foot solid masonry wall that uses materials and finishes that match any proposed publicly facing wall within the development; and

(2) A decorative louvered, slated, or perforated upper screen, no more than 75% opaque, mounted above the masonry wall.

10. ***Utilities.***

a. The Data Center shall bear the full cost of undergrounding any adjacent or on-site electrical infrastructure that would otherwise be provided via overhead distribution and/or transmission as deemed necessary by the City of Mesa Development Services Department in its sole discretion and approved by the applicable utility.

b. When the Data Center is located within the City's electric or natural gas service territories, the City may require a Data Center to source and transmit its own electric or natural gas commodity to a point of the City's electric or natural gas system as determined in the City's sole discretion.

c. The Data Center may be subject to other requirements from the applicable energy utility when located outside of the City's electric or natural gas service territories.

G. **Operational Requirements.**

1. ***Modifications and Deviations Not Permitted***. The operational standards contained within this Section may not be modified through a Planned Area Development (PAD) Overlay, Bonus Intensity Zone (BIZ) Overlay, Alternative Compliance, Special Use Permit (SUP), Variance or otherwise.

2. ***Sound Study at Certificate of Occupancy or Certificate of Completion Stage***.

a. Within 30 days of the issuance of a certificate of occupancy or certificate of completion, whichever occurs first, the Data Center operator shall conduct a sound study performed by a third-party acoustical consultant.

b. The study shall document noise levels emanating from the Data Center measured at the property line of the nearest residential zoning district, residential use, or other

sensitive uses as reasonably determined by the Planning Director, during peak routine operation of the Data Center mechanical equipment.

3. ***Annual Sound Study Required.***

   a. The Data Center operator shall perform an annual sound study during peak routine operation of the Data Center mechanical equipment for five (5) years after completion of the initial post-construction sound study.

   b. The study shall document noise levels emanating from the Data Center as measured at the property line of the nearest residential zoning district, residential use, or other sensitive uses as reasonably determined by the Planning Director.

   c. The Data Center operator shall provide the results of the sound study to the City within 30 days of the anniversary of the date on which the certificate of occupancy or certificate of completion was issued by the City.

4. ***Backup Generators.*** If the Data Center operator intends to use backup power generators on the parcel, the operator shall maintain a public website announcing the times when the generators will be in operation.

   a. Any routine operation of the backup generators, including for testing purposes, shall be announced on the website at least 24 hours in advance.

   b. The operator shall also notify the City of Mesa Public Information Office at least 24 hours in advance of a test.

   c. Unless the generators are supplying backup electrical supply during a power outage or an electric utility demand response event, backup generators may only operate between the hours of 9:00 am and 5:00 pm, Monday through Friday, excluding holidays.

   d. Upon request by City staff, the Data Center operator shall provide the address of the website and QR code where the notices required by this Section are published.

   e. Any generating systems that are capable of operating in parallel with the City of Mesa's electric utility or in an islanded manner within the City of Mesa's electric utility will be subject to a generator interconnection process and interconnection study. In all instances, the Data Center operator shall be responsible for all interconnection costs and costs of distribution system protection related to the operation of the generating system.