City of Phoenix
PLANNING AND DEVELOPMENT DEPARTMENT

Staff Report
Zoning Ordinance Text Amendment
Z-TA-2-25-Y
May 1, 2025

Application No. Z-TA-2-25-Y: Amend the Phoenix Zoning Ordinance Chapter 2, Section 202 (Definitions) to add a definition for data centers; amend Chapter 5, Section 507 Tab A.II.D (Guidelines for Design Review, City-Wide Design Review Guidelines, Specialized Uses) to modify the section title and add design standards for data centers; and amend Chapter 6, Section 647 (Special Permit Uses), Section 647.A.2 to add data centers within the C-2 (Intermediate Commercial), C-3 (General Commercial), CP/GCP (Commerce Park/General Commerce Park), A-1 (Light Industrial), and A-2 (Industrial) zoning districts, with a Special Permit and performance standards

Staff recommendation: Staff recommends approval of Z-TA-2-25-Y as shown in the proposed text in Exhibit A.

BACKGROUND

In 2024, the Mayor and City Council directed City staff to create new policy guidance and zoning regulations related to data centers, in response to the increased frequency and development of these types of facilities. Data centers house a large collection of technological equipment designed to store, process, and manage vast amounts of digital information. One major concern with data centers is that their energy demand is expected to increase significantly, in large part due to Artificial Intelligence. Another major concern is the scale at which these types of facilities are built and how they can negatively affect the surrounding community they are built in. The companion general plan amendment, GPA-2-25-Y is a request to amend the 2025 General Plan to add a section to provide policy guidance for data centers addressing the major concerns they pose to the community and to the city.

Staff researched other cities in the nation that have adopted ordinances related to data centers for best practices and looked at ways Phoenix could enhance those ordinances.

PURPOSE

The intent of the proposed text amendment is to create a regulatory framework for data centers. Data centers are not defined nor are they explicitly listed as a permitted use in the Phoenix Zoning Ordinance; therefore were addressed via informal interpretation. This text amendment will create a new definition for “data center”; create design guidelines such as setback requirements and screening design standards for equipment enclosures and accessory public utility buildings and facilities, such as electrical substations; and create enhanced landscaping, architectural, and streetscape standards to soften the design of data centers so they can better blend into the surrounding environment they are built in; and develop location criteria and performance standards for data centers. This includes spacing from high-capacity transit; noise standards to reduce the impact of data centers when located within a certain distance from residential; and allow data centers only the following zoning districts: C-2, C-3, CP/GCP, A-1 and A-2 with a Special Permit.

DESCRIPTION OF THE PROPOSED TEXT

The proposed text amendment includes three main components: Definitions, Data Center-Specific Design Guidelines, and special permit requirements and performance standards:

1. **Definitions:**
   The Zoning Ordinance currently does not have a definition for the term “data center”. The proposed definition states generally what a data center is and when it may be considered as an accessory use to a non-residential use, if it occupies no more than 10 percent of the building footprint, is used to serve the enterprise functions of the on-site property owner, is not used to lease data storage and processing services to third parties and is not housed in a separate stand-alone structure on the site.

2. **Data Center-Specific Design Guidelines:**
   The proposed regulations for data centers were based and built upon established practices in other municipalities. Equipment enclosures would need to be setback a minimum of 150 feet from abutting rights-of-way and residentially zoned properties, and screened by a decorative solid wall or building. Mechanical equipment, such as an electrical substation, would also need to meet similar setbacks and decorative screening requirements. Since data centers are very large in scale, enhanced streetscape, landscape setback and planting standards will help to soften the edges of data center sites and will beautify the edges of the site that interacts with the surrounding community. Enhanced architectural design guidelines, such as variation in colors, materials, patterns, textures, height, window fenestration, and articulation, and standards for art in private development, will help to avoid large, monotonous, undifferentiated surfaces and avoid large, monolithic buildings, and instead will provide an enhanced design interface with a visual interest for the surrounding community.

3. **Special Permit Requirements and Performance Standards:**
   The Zoning Ordinance currently does not have development regulations for data centers. The proposed text amendment would allow data centers in the C-2, C-3, CP/GCP, A-1 and A-2 zoning districts with a Special Permit. The performance standards for data centers include a half a mile spacing from approved high-capacity transit, noise study and noise mitigation requirements for data centers located within 300 feet of a residential zoned district and a will-server letter from the utility company that it can serve the energy demand within two years.

Conclusion:
This text amendment will create a process for data centers to be proposed and evaluated through a public hearing process. The text amendment will provide standards to address major concerns that data centers cause. By adding a definition for the term "data center", clarifying the districts in which they are permitted, and adding standards for data centers to follow, Phoenix will be leading in ensuring that data centers blend with the surrounding environment while limiting negative impacts to existing communities.

Staff recommends approval of the changes to the Zoning Ordinance as proposed in Exhibit A.

Writer
Adrian Zambrano
May 1, 2025

Team Leader
Racelle Escolar

Exhibit
A. Proposed Language

Exhibit A

Staff Proposed Language That May Be Modified During the Public Hearing Process is as follows:

Amend Chapter 2, Section 202 (Definitions) to add a definition for data centers.

Section 202. Definitions.

***

DATA CENTER: A FACILITY USED PRIMARILY FOR DATA SERVICES, INCLUDING THE STORAGE, PROCESSING, MANAGEMENT, AND TRANSMISSION OF DIGITAL DATA. A FACILITY SHALL NOT BE CONSIDERED A DATA CENTER WHEN IT DOES NOT EXCEED 10% OF THE GROSS FLOOR AREA OF ALL ON-SITE BUILDINGS; IS USED TO SERVE THE ENTERPRISE FUNCTIONS OF THE ON-SITE PROPERTY OWNER; AND IS NOT USED TO LEASE DATA SERVICES TO THIRD PARTIES.

***

Amend Chapter 5, Section 507 Tab A.II.D (Guidelines for Design Review, City-Wide Design Review Guidelines, Specialized Uses) to modify the section title and add design standards for data centers, and to read as follows:

Section 507 Tab A. Guidelines for design review.

***

II. CITY-WIDE DESIGN REVIEW GUIDELINES. The design review guidelines ~~indicate specific standards of implementation and~~ are ~~categorized as Requirements (R), Presumptions (P), or Considerations (C).~~ INDICATED WITH THE MARKERS (R), (R*), (P), (T), AND (C) SHALL BE APPLIED AND ENFORCED IN THE SAME MANNER AS INDICATED IN SECTION 507. ITEMS NOT INDICATED WITH AN (R), (R*), (P), (T), AND (C) SHALL BE TREATED AS (R).

***

D. **Specialized Uses.**

***

5. **DATA CENTERS.**

5.1. **SETBACKS.** ALL MECHANICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO ELECTRICAL TRANSFORMERS AND GENERATORS, SHALL BE SET BACK A MINIMUM OF 150 FEET FROM ABUTTING RIGHT-OF-WAY OR RESIDENTIALLY ZONED PROPERTY; IN ADDITION TO THE FOLLOWING: (R*)

5.1.1. THE EQUIPMENT MUST BE FULLY SCREENED BY A BUILDING THAT IS VISUALLY INTEGRATED WITH THE DESIGN OF THE OVERALL DEVELOPMENT; OR

5.1.2 THE EQUIPMENT MUST BE FULLY SCREENED BY A DECORATIVE SCREEN WALL HAVING VARIATIONS IN COLORS, MATERIALS, PATTERNS, TEXTURES, AND/OR AN ART INSTALLATION SUCH AS A MURAL.

RATIONALE: GROUND EQUIPMENT SHOULD BE ENCLOSED AND SET BACK TO PROVIDE VISUAL SCREENING AND REDUCE NOISE LEVELS.

5.2. **LANDSCAPE SETBACK.** A MINIMUM 30-FOOT WIDE PERIMETER LANDSCAPE SETBACK SHALL BE PROVIDED, SUBJECT TO THE FOLLOWING:

5.4.1. TWO STAGGERED ROWS OF LARGE CANOPY SHADE TREES PLANTED 20 FEET ON CENTER OR IN EQUIVALENT GROUPING SHALL BE PROVIDED, AS APPROVED BY THE PDD LANDSCAPE ARCHITECT. (T)

5.4.2 FIVE 5-GALLON SHRUBS PER TREE SHALL BE PROVIDED, AT A MINIMUM. (T)

5.4.3 GROUNDCOVERS SHALL BE PROVIDED TO SUPPLEMENT THE TREES AND SHRUBS SO THAT A MINIMUM 75% LIVE COVERAGE IS ATTAINED. (T)

RATIONALE: AN ENHANCED LANDSCAPE SETBACK WITH A DENSE NUMBER OF TREES AND SHRUBS HELPS TO MITIGATE NEGATIVE VISUAL IMPACTS.

5.3. **ARCHITECTURE.**

5.3.1. BUILDING FACADES THAT EXCEED 100 FEET SHOULD CONTAIN ARCHITECTURAL EMBELLISHMENTS AND DETAILING SUCH AS TEXTURAL CHANGES, PILASTERS, OFFSETS, RECESSES, WINDOW FENESTRATION (INCLUDING FAUX WINDOWS), SHADOW BOXES, AND OVERHEAD/CANOPIES. (P)

5.3.2. ALL SIDES OF A BUILDING/STRUCTURE SHOULD PROVIDE AN ENHANCED DESIGN INCLUDING A VARIATION IN COLORS, MATERIALS, PATTERNS, TEXTURES, HEIGHT, WINDOWS (INCLUDING FAUX WINDOWS), ARTICULATION, AND/OR ART INSTALLATIONS. (P)

5.3.3. EACH MAIN ENTRANCE SHOULD INCLUDE A FEATURE THAT DIFFERENTIATES IT FROM THE REMAINDER OF THE BUILDING FACADE BY A CHANGE IN BUILDING MATERIAL, PATTERN, TEXTURE, COLOR, AND/OR ACCENT MATERIAL, AND THAT PROJECTS OR IS RECESSED FROM THE ADJOINING BUILDING PLANE. (P)

5.3.4. ARCHITECTURAL DESIGN SHOULD TAKE INTO ACCOUNT THE SOLAR CONSEQUENCES OF BUILDING HEIGHT, BULK, AND AREA. (C)

RATIONALE: DATA CENTER BUILDINGS SHOULD INCLUDE ENHANCED ARCHITECTURAL DESIGN FEATURES IN ORDER TO PROVIDE VISUAL INTEREST, TO BREAK UP THE MASS OF THE BUILDING/STRUCTURE AND TO PROVIDE AN ENHANCED DESIGN INTERFACE WHERE VISIBLE FROM A RIGHT-OF-WAY AND/OR RESIDENTIALLY ZONED PROPERTY.

5.4. **STREETSCAPE.** FOR EACH STREET FRONTAGE, A MINIMUM 6-FOOT-WIDE DETACHED SIDEWALK SEPARATED FROM THE CURB BY A MINIMUM 8-FOOT-WIDE LANDSCAPE STRIP, SUBJECT TO THE FOLLOWING:

5.4.1. SINGLE-TRUNK, LARGE CANOPY SHADE TREES, PLANTED 20 FEET ON CENTER OR IN EQUIVALENT GROUPINGS, SHALL BE PROVIDED ON BOTH SIDES OF THE SIDEWALK AND PROVIDE A MINIMUM OF 75% SHADE. (T)

5.4.2 A MIXTURE OF SHRUBS, ACCENTS, AND VEGETATIVE GROUNDCOVERS WITH A MAXIMUM MATURE HEIGHT OF TWO FEET SHALL BE DISTRIBUTED THROUGHOUT THE LANDSCAPE AREAS TO ACHIEVE A MINIMUM OF 75% LIVE COVERAGE. (T)

5.4.3 ALL EXISTING OVERHEAD UTILITIES WITHIN THE RIGHTS-OF-WAY ABUTTING THE DEVELOPMENT SHALL BE PLACED UNDERGROUND, UNLESS OTHERWISE APPROVED THROUGH A TECHNICAL APPEAL. (T)

RATIONALE: AN ENHANCED STREETSCAPE HELPS TO SOFTEN THE EDGE OF THE DEVELOPMENT OF A LARGER NON-RESIDENTIAL USE.

5.5. **SHADE.**

5.5.1. ALL ON-SITE PEDESTRIAN PATHWAYS SHOULD BE SHADED A MINIMUM OF 75% BY A STRUCTURE, LANDSCAPING, OR A COMBINATION OF THE TWO. (P)

5.5.2 DEDICATED MULTI-USE TRAILS ADJACENT TO THE SITE SHOULD BE SHADED A MINIMUM OF 50% AT TREE MATURITY. (P)

RATIONALE: ENHANCED PEDESTRIAN COMFORT SHOULD BE PRIORITIZED ADJACENT TO AND WITHIN DATA CENTER DEVELOPMENTS ACROSS THE CITY.

***

Amend Chapter 6, Section 647 (Special Permit Uses), Section 647.A.2 to add data centers within the C-2 (Intermediate Commercial), C-3 (General Commercial), CP/GCP (Commerce Park/General Commerce Park), A-1 (Light Industrial) and A-2 (Industrial) zoning districts, with performance standards to read as follows:

Section 647. Special Permit Uses.

***

A. **Permitted uses.** There shall be permitted, in addition to the uses enumerated in the several use districts, certain additional uses subject to the requirements of this section.

***

2. A special permit may be granted by the Council upon recommendation of the Commission to establish the following uses in the use districts named:

***

KK. DATA CENTERS IN THE C-2, C-3, CP/GCP, A-1 AND A-2 ZONING DISTRICTS, SUBJECT TO THE FOLLOWING:

(1) THE DEVELOPMENT SHALL BE NO CLOSER THAN 2,640 FEET FROM AN APPROVED HIGH-CAPACITY TRANSIT STATION.

(2) PRELIMINARY SITE PLAN APPROVAL WILL NOT BE GRANTED FOR A DATA CENTER UNTIL SUCH TIME THAT A LOCAL UTILITY COMPANY CONFIRMS IN WRITING WITH A “WILL-SERVE” LETTER THAT IT CAN SERVE THE ENERGY DEMAND WITHIN TWO YEARS FOR THE PROPOSED DATA CENTER. THE LETTER FROM THE UTILITY COMPANY SHALL BE SUBMITTED TO PDD CONCURRENT WITH THE PRELIMINARY SITE PLAN.

(3) THE FOLLOWING SHALL APPLY WHEN THE SITE IS LOCATED WITHIN 300 FEET OF A RESIDENTIAL ZONING DISTRICT:

(a) PRELIMINARY SITE PLAN APPROVAL FOR A DATA CENTER SHALL NOT BE GRANTED UNLESS IT HAS BEEN DEMONSTRATED THAT THE DATA CENTER, INCLUDING ALL ON-SITE MECHANICAL EQUIPMENT AND FACILITIES, WILL NOT EXCEED THE EXISTING AMBIENT NOISE LEVEL FOR THE SITE BY MORE THAN 5%. (T)

(b) TO DETERMINE COMPLIANCE WITH THE PRIOR SUBSECTION, THE DEVELOPER SHALL SUBMIT A NOISE STUDY TO PDD PRIOR TO OR CONCURRENT WITH THE PRELIMINARY SITE PLAN. THE NOISE STUDY SHALL BE PERFORMED BY A THIRD-PARTY ACOUSTICAL ENGINEER TO DOCUMENT BASELINE NOISE LEVELS IN THE AREA OF THE PROPOSED DATA CENTER, INCLUDING NOISE LEVELS MEASURED AT THE PROPERTY LINE OF THE NEAREST RESIDENTIAL ZONING DISTRICT TO THE PROPOSED DATA CENTER PROPERTY.

(c) UPON APPROVAL OF THE NOISE STUDY, THE METHODS PROPOSED TO MITIGATE NOISE SHALL BE STIPULATED AS A CONDITION OF FINAL SITE PLAN APPROVAL. A FINAL CERTIFICATE OF OCCUPANCY SHALL NOT BE ISSUED IF THE AMBIENT NOISE EXCEEDS THE PRIOR EXISTING NOISE LEVEL BY MORE THAN 5%.

(4) THE DEVELOPMENT IS SUBJECT TO ALL APPLICABLE DESIGN GUIDELINES SET FORTH IN SECTION 507 TAB A, INCLUDING THOSE FOR SECTION II.D.5, DATA CENTERS.

***