

Santa Clara Entitlement Process and Development Standards:

In Santa Clara, data centers require a Conditional Use Permit in all Industrial and office zoning districts. Ancillary data centers are permitted by-right in Low-Intensity Office/Research and Development (LO-RD), High-Intensity Office/Research and Development (HO-RD), and Light Industrial (LI) zoning districts.

Santa Clara's development standards focus on the façade design to reduce the appearance of mass and provide visual interest by requiring to provide at least two of the following elements: change in structure height, structure step-backs or recesses, fenestration, change in structure material, pattern, texture, color, or use of accent materials. Additional standards focus on reducing the impact from exterior lighting and structural noise.

Cities in the Bay Area and California:

In San Jose, data centers require a Conditional Use Permit in Commercial zones, and a Special Use Permit in Industrial zones, both involving public hearings. Surrounding cities vary: Sunnyvale permits data centers with specific plan permits in designated zones, Mountain View and Milpitas allow them by-right in most Industrial zones. Elsewhere in California as an example, El Segundo requires a Conditional Use Permit in Industrial zones.

Other Examples Nationally

Outside of California, Virginia, Texas and Illinois have the highest number of data centers in the country. Jurisdictions in Virginia generally allow data centers with a Special Exception or Special Use Permit unless located in specific overlay zones, where they may be allowed by-right. In Texas and Illinois, jurisdictions mostly allow data centers by-right in Industrial or Manufacturing zones, with some cities lacking a specific data center use definition but permitting them under broader categories like light manufacturing or warehouse services.

Virginia

Loudoun County requires a Special Exception permit in Planning Development Commercial Center, Commercial Light Industry, and all Office and Industrial zoning districts. Fairfax County has a similar entitlement process where data centers are allowed as a Special Exception in certain Commercial and Office zones and within most Industrial zoning districts. A Special Exception is a discretionary review process with Planning Commission consideration and recommendation to the Board of Supervisors. Prince William County created a "Data Center Opportunity Zone Overlay District" where data centers are permitted by-right and need to meet design standards established in the Overlay District specifically for data centers. For Office and Industrial zoning districts, data centers are allowed by-right within the "Data Center Opportunity Zone Overlay District" and allowed with a Special Use Permit when located outside of the Overlay District.

Texas

In Fort Worth, data centers are allowed by-right in all Industrial zoning districts. A data center is not a defined use in San Antonio but may be permitted as "Light Manufacturing" or "Office/Warehouse" in Industrial zoning districts. In Dallas, a data center is not a defined use but may be classified under "Utility and Public Service Uses" or "Commercial and Business Service Uses" and permitted either by-right in Commercial, Office, and Industrial zoning districts. Houston has approximately 49 data centers. While Houston does not have zoning districts and

does not address land use, development is governed by ordinance codes that address subdivision and development standards.

Illinois

In Chicago, data centers are called “Electronic Data Storage Centers” and are permitted by-right in all Manufacturing and most Commercial zoning districts. In March 2024, the City adopted an ordinance for data residency requirements for City data, to encourage “data residency” to reward companies who agree to store city data by providing a bid preference in the city’s procurement process. The City is also preparing an environmental and energy impact report for data centers that is expected to be issued in December 2025. In Aurora, data centers are included in the “Warehouse, Distribution, and Storage Services” land use category and are permitted by-right in all Manufacturing zoning districts and in Office, Research, and Light Industry District.

Design and Development Standards

The following provides a summary of a review of design and development standards for data centers throughout several jurisdictions in the Bay Area and Virginia. The intent is to identify clear and objective standards for data centers, focusing on the following elements: data center development adjacent to residential districts, building bulk and massing, and façade design. Currently, the City of Santa Clara does not have objective standards for data centers.

Adjacency to Residential Districts:

Jurisdictions in Virginia have implemented minimum setback standards for parking, buildings, and mechanical equipment and substations for data centers located adjacent to residential developments as well as providing landscaping and natural buffers. Additionally, some jurisdictions require mechanical equipment and substation screening with materials compatible with the primary structure.

Building Bulk and Massing:

Loudoun County requires reduction in building mass and bulk through change in building height at minimum intervals and building step-back at a minimum height. Prince Williams County regulates the massing and scale of data centers with the use of broad, large-scale architectural feature to provide variety and modulation, variation at the ground plane, building massing articulation, and providing outdoor amenity spaces for employees. Fairfax County limits the allowed total gross floor area and requires change in building height.

Façade Design

Some jurisdictions in Virginia and Bay Area are evaluating façade design through requiring differentiated surfaces, fenestration/window standards, and entryway design. Which ??? jurisdictions require incorporating a change in design elements such as material, pattern, color at horizontal intervals and providing fenestration for a certain percentage of the building façade. Additionally, standards regulating primary building entryways to include overhangs, canopies or porticos, recesses/projections, arcades, raised corniced parapets over the entrance, change in color and material create a more visually appealing and welcoming data center developments.