

**SEND TO PLANNING COMMISSIONERS AND BOARD OF SUPERVISORS BY JUNE 2nd:**

Plancom@fairfaxcounty.gov; ClerktotheBOS@fairfaxcounty.gov

**COPY THIS TO THE SUBJECT:** Recommendations on Proposed Data Center Zoning Ordinance Amendment

**COPY THE FOLLOWING TO THE BODY AND ADD YOUR NAME AND ADDRESS AT THE END:**

To all Planning Commissioners and all Board of Supervisors:

As a resident, I feel that, although the [May 17, 2024 Staff Report](#) has some welcome changes, it has fallen short of the [January 9, 2024 Data Center Report and Recommendations](#) to “**require SE approval for data centers, regardless of size, in the C-3, C-4, and I-2 through I-6 Districts**”.

To honor the promise Chairman McKay made to hold data centers to the “[highest standards we can possibly foresee](#)” and to **give citizens and the county a fighting chance**, we request the **following three (3) changes** and **additional follow on motions** (supporting details follow):

- 1. Require a Special Exception for data centers in all permitted districts (as recommended by the January 9, 2024 Data Center Report and Recommendations, page 19).**
  - Loudoun County is proposing a Special Exception in all permitted districts.
  - The only way to require air or water quality mitigation or protections, stricter noise regulations, or set electrical limits is through the Special Exception process.
  - Electrical consumption is a better measure of impact than building size and by-right data centers rob the County and Electrical providers of the ability to plan and forecast electricity needs.
- 2. Require ½ mile setback from residential (the same setback recommended for metro).**
  - Many “messy” I-5 districts are adjacent to residential.
  - Loudoun County’s 200-foot setback was adopted a decade ago at the request of data center industry representatives.
  - The 200-foot setback is arbitrary and insufficient.
- 3. Require noise monitoring (after operations begin) over a minimum of 5 years or any time new noise generating equipment is added.**
  - Especially important in the areas where data centers are concentrating.
  - Other jurisdictions and data center applications require continuous noise monitoring.
- 4. Follow-on motions:**
  1. *Comprehensive Plan:* Update the Glossary definition of INFRASTRUCTURE to include “electricity”.
  2. *Comprehensive Plan:* Encourage Air Quality and Water quality monitoring and mitigation.
  3. *Noise Ordinance:* Modify the Noise Ordinance to measure continuous low-frequency noise in dB(C) or a 42 dB(A) limit at residential boundaries.

4. *Other:* Request DEQ to install additional Fairfax County air quality monitoring stations, especially in areas where data centers will be concentrated.

### Supporting details:

Contrary to the January 2024 Data Center Report and Recommendations, Fairfax County's website's July 31, 2018 article [Coresite Realty's New Reston Data Center Approved Under New Policy to Attract More Centers to Fairfax](#) states, "In Fairfax County, there are at least 43 data centers occupying about 2.5 million square feet of space, according to the county's Economic Development Authority." The Sully District has: [4.7 million square feet of data centers](#) approved (but not yet operational) since 2021 (the highest concentration in the county), has the [highest concentration of by-right data center use districts](#), and Route 28 to Route 50 West is becoming the location of Fairfax's own "Data Center Alley". We citizens need a voice.

1. **Require a Special Exception for data centers in all permitted districts (as recommended by the January 9, 2024 Data Center Report and Recommendations, page 19).**
  - **Loudoun County is proposing a Special Exception in all permitted districts** as part of its Zoning Ordinance changes this year. <https://www.loudoun.gov/5990/Data-Center-Standards-Locations>
  - **The only way to require air or water quality mitigation or protections, stricter noise regulations, or set electrical limits is through the Special Exception process**, as confirmed by the [May 17, 2024 Staff Report](#). A prime example is the January 16, 2024 SE 2022-SU-0038/RZ 2022-SU-00019 PDCREF2 Chantilly Premier Proffers, most notably, 27 through 35: <https://plus.fairfaxcounty.gov/CitizenAccess/urlrouting.ashx?type=1001&ID1=REC22&ID2=00000&ID3=00GHV&agency=FFX&SeqNo=3932931> )
  - **Electrical consumption is a better measure of impact than building size and by-right data centers rob the County and Electrical providers of the ability to plan and forecast electricity needs.** Staff confirmed there is no prohibition "on requesting information about energy usage". Data Centers use an [unprecedented amount of electricity](#), the technology is rapidly changing and electrical requirements are increasing (e.g. [AI requires more power](#)). What may have fit into at 80,000 SQFT data center at 12 MW may now need 60 MW which results in more [cooling challenges impacting noise and water](#) and an increased strain on the electrical grid. Because electric providers are required by law to provide power, Virginia is now the leader in electrical consumption by data centers (<https://www.visualcapitalist.com/cp/top-data-center-markets/>). [Dominion Energy](#) and NOVEC admit they cannot meet the current data center electrical demand without continuing to use Coal and other polluting power plants. In addition, the county has yet to realize any tax benefits, or an understanding of residential and environmental impacts, from the 4.7 millions square feet of data centers approved in the Sully district since 2021, and won't for years since several new substations are needed. For example, the AWS Virginia Mallory buildings are still awaiting the construction of 2 new substations and transmission lines (Dominion Energy project: Aviator to Takeoff).

- **Equipment unable to be fully enclosed must require a Special Exception, rather than Director LDS approval.** The Special Exception process has proven to be the only mechanism for the county to obtain the necessary proffers to protect residents, so the inability to fully enclose noise generating equipment should trigger the Special Exception process.
- **By-right data centers by-pass the Comprehensive Plan and are incongruent with surrounding areas.** For example, Land Unit H recommends a 0.35 F.A.R. but I-5 can be built to 0.5 F.A.R., resulting in massive industrial buildings that are incongruent with the surrounding area. (e.g. AWS Virginia Mallory).

## 2. **Require ½ mile setback from residential (the same setback recommended for metro)**

- **Many “messy” I-5 districts are adjacent to residential.** What the county likes to refer to as the “messiest” industrial districts ignores the history of upzoning to those districts and the fact that Fairfax County’s Zoning Viewer confirms [many I-5 districts are adjacent to residential neighborhoods](#). As data centers congregate, the cumulative impacts are not being addressed.
- **Loudoun County’s 200-foot setback was adopted a decade ago at the request of data center industry representatives.** The setback was requested by representatives of the data center industry and adopted after a November 13, 2013 hearing when data centers were vastly different than they are today.  
<https://www.loudoun.gov/DocumentCenter/View/99067/Item-01-ZOAM-2013-0003-Data-Center?bidId=>
- **The 200-foot setback is arbitrary and insufficient.** The uses described in the Staff report (a barn for livestock, a crematorium, or extraction activity) as a reason for the 200-foot setback, do not generate a 24/7 continuous low-frequency noise. The Staff Report also fails to mention other types of uses that “have impacts on adjacent residential property.” For example, Sawmilling ([ZO 4102.7.N](#)), which requires a set back of 400 ft. from a residential district. The Chantilly Premier noise study, **modeled on enhanced, upgraded noise mitigation**, demonstrates that in order for noise from this data center to be below the nighttime standard of 55 dBA, the required range is approximately 1000 feet.  
<https://plus.fairfaxcounty.gov/CitizenAccess/urlrouting.ashx?type=1001&ID1=REC22&ID2=00000&ID3=00GHV&agency=FFX&SeqNo=3451577>

## 3. **Require noise monitoring (after operations begin) over a minimum of 5 years or any time new noise generating equipment is added.**

- **Especially important in the areas where data centers are concentrating,** notably along Route 50 between Route 28 and the Loudoun County border.

- **Other jurisdictions and data center applications require continuous noise monitoring.**

Chandler, AZ has implemented common sense changes such as requiring continuous noise monitoring and publishing generator testing schedules.

<https://www.chandleraz.gov/news-center/chandlers-data-center-ordinance-now-effect>.

PDCREF2 Chantilly Premier, proffer 29d, commits to noise monitoring after each addition of noise generating equipment:

<https://plus.fairfaxcounty.gov/CitizenAccess/urlrouting.ashx?type=1001&ID1=REC22&ID2=00000&ID3=00GHV&agency=FFX&SeqNo=3932931>.

In addition, we request the following follow-on motions:

**1. Comprehensive Plan:**

- **Update the Glossary definition of INFRASTRUCTURE to include “electricity”.** The examples in the “Such systems include” sentence are being used as a complete list when analyzing Appendix 12 Guidelines For Higher Intensity. Electricity is a vital infrastructure and must be included. Data Centers use an unprecedented amount of electricity, and with Artificial Intelligence (AI), the need only increases. Proper planning and forecasting cannot be accomplished without considering the electrical needs of each data center.
- **Encourage Air Quality and Water quality monitoring and mitigation.** (e.g. <https://plus.fairfaxcounty.gov/CitizenAccess/urlrouting.ashx?type=1001&ID1=REC22&ID2=00000&ID3=00GHV&agency=FFX&SeqNo=3932931> proffers 31 and 35d)

**2. Noise Ordinance: Modify the Noise Ordinance to measure continuous low-frequency noise in dB(C) or a 42 dB(A) limit at residential boundaries.** NYC changed their measuring scale away from dB(A) to dB(C) for low-frequency noise and limits air conditioning systems (including industrial rooftop systems) to “42 decibels”...“at an open door or window of a nearby residence”.

<https://www.nyc.gov/assets/dep/downloads/pdf/air/noise/noise-code-guide-summary.pdf>.

Chantilly Premier’s Noise Study demonstrates “40 - 42 dBA at the residential area” can be achieved

<https://plus.fairfaxcounty.gov/CitizenAccess/urlrouting.ashx?type=1001&ID1=REC22&ID2=00000&ID3=00GHV&agency=FFX&SeqNo=3451577>

**3. Other: Request DEQ to install additional Fairfax County air quality monitoring stations, especially in areas where data centers will be concentrated;** specifically in the Rt 50 corridor between Rt 28 and the Loudoun County border.

Respectfully,

[YOUR NAME AND ADDRESS]