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Planning for the Future of Lehigh and Northampton Counties at 615 Waterfront Drive, Suite 201, Allentown, PA 18102 ■ (610) 264-4544 ■ lvpc@lvpc.org ■ www.lvpc.org

April 28, 2026

Mr. Mark Hudson, Manager
Hanover Township
3630 Jacksonville Road
Bethlehem, PA 18017

Re: Zoning Ordinance Amendment – Data Centers & Accessory Data Centers
Hanover Township
Northampton County

Dear Mr. Hudson,

The application proposes amending the Hanover Township Zoning Ordinance to define "Data Centers" and "Data Center Accessory Uses" as conditional uses in the Planned Industrial/Business District (PIBD) and the conditional use requirements for these uses.

The LVPC supports Hanover Township's proactive effort to address an emerging land use before proposals arrive. That approach is consistent with *FutureLV: The Regional Plan*'s direction to guide the location and intensity of development, match development intensity with infrastructure capacity, and encourage an efficient development process responsive to regional needs (of Policy 1.1).

The Township's proposed ordinance both aligns with best practices for regulating data centers and contains opportunities to improve the ordinance to support public health, safety and welfare.

The following aspects of the proposed ordinance align with *FutureLV:*

- **Conditional Use**: Permitting data centers as a conditional use enables the Township to establish substantial submission criteria and thoroughly evaluate project impacts on a case-by-case basis, supporting 'an efficient development process that is responsive to regional needs' (of Policy 1.4).

- **Buffering**: Large buffer yards for vegetated screening are strong features. These requirements support compatibility with surrounding uses and protection of community character and quality of life by 'promoting context-specific design solutions' (of Policy 5.4). Specifying that buffer yards and berms be planted with 'native, carbon-sequestering, and climate adaptive species' is a best practice (of Policy 3.4).

- **Water and Sewer Impacts**: The proposed ordinance includes substantive utility and infrastructure review. Requiring evidence of water and sewage service, a water resources impact study, Delaware River Basin Commission (DRBC) and Pennsylvania Department of Environmental Protection (DEP) review where applicable, and an electric interconnection agreement reflects *FutureLV's* emphasis on matching development intensity to available infrastructure (of Policy 1.1) and 'minimizes impacts of development to protect the health, safety and welfare of the public' (of Policy 3.2). The Township may wish to include a statement indicating preference for closed-loop cooling systems that recirculate and reuse water. If so, definitions for closed-loop cooling and/or once-through cooling systems should be included in the definition section of the Township's ordinance.

- **Emergency Planning**: The provision requiring an Emergency Response Plan aligns with *FutureLV* by enhancing planning and emergency response capabilities (of Policy 5.1). The LVPC encourages continued coordination between the applicant, Township and local emergency service providers to ensure adequate site design that supports preparedness and response capabilities.

- **Aesthetics**: The aesthetic standards included in the ordinance help to minimize the visual impacts of the scale of buildings on neighboring properties and 'promote context-specific design solutions' (of Policy 5.4).

The LVPC offers additional recommendations for the Township's consideration to further strengthen its regulations and promote public health, safety and welfare:

- **Additional Information:** Due to the complicated and differing configurations of data center uses, the LVPC recommends the Township request the following additional information from the applicant for further review and consideration:
    - Cooling system design, including documentation describing whether the facility will use air, water, evaporative, or hybrid cooling, as these directly affect water demand, noise, and heat exhaust (of Policies 1.1, 3.1, 3.2 and 3.4).
    - Generator and outdoor equipment details, including the number, size, fuel type, sound levels, hours of testing, and screening of any generators or similar equipment (of Policy 3.2).
    - Noise analysis, including expected operational noise from cooling equipment, transformers, generators, or testing events (of Policy 3.2).
    - Lighting plans, including the intensity, shielding, or hours of operation of site lighting associated with the use (of Policy 3.2).
    - Traffic and parking justification, including anticipated trips and traffic generation from employee counts, visitors, service calls, or periodic deliveries (of Policy 2.4).

- **Dimensional Standards:** The LVPC commends the inclusion of a 1000-foot district proximity limit outside of the PIBD zone. The LVPC recommends including an additional layer of regulations by requiring general setbacks at least 500 feet from sensitive receptors, to include residential properties, schools, hospitals, and other uses that could be especially impacted by externalities.

- **Power Supply**: The LVPC recommends adding requirements for any backup power equipment, such as minimizing air pollutant emissions in accordance with Environmental Protection Agency (EPA) Tier 4 emissions standards and requiring annual testing to minimize air quality impacts (of Policy 3.2). Detailed specifications on emissions controls and fuel storage safety measures such as spill-prevention and secondary containment should also be included to ensure public health and environmental safety. The LVPC also recommends including requirements for on-site power generation uses such as fuel-cell power stations, geothermal, and solar photovoltaics. The technology facility industry is moving in the direction of on-site generation, and the Township can further 'integrate efficiency measures and emerging technologies', 'improve the utility and mobility infrastructure of the region' (of Policy 1.1), and 'minimize and mitigate the impacts of utility expansion associated with technological advancements' (of Policy 3.2)
    - Additionally, the definition of Data Center Accessory Use may conflict with the existing regulations the township proposes for solar.

- **Noise**: When proper noise abatement measures are taken by the developer (such as installing sound attenuation walls), noise level at the property line can be significantly reduced. Data Centers are operational 24/7, so noise levels are unlikely to change throughout the day unlike other kinds of industrial uses. The LVPC recommends that the Township consider lowering the permissible maximum decibel level to 55 dB(A) regardless of the time of day, especially where the Data Center borders residential or other non-industrial uses (of Policy 3.2).

- **Environmental Impact**: The Township may consider requiring an environmental impact assessment be submitted by applicants to (1) evaluate impacts of data center developments and (2) to propose mitigation strategies for any adverse effects to air, soil, water quality, groundwater sources, wildlife and habitat, and greenhouse gas emissions. These may be modelled under regular and adverse conditions such as drought, extended power outages and extreme heat. Including these features in the ordinance serves to 'preserve natural resources in the land development process' and promotes stewardship of the Township's and the region's natural resources (of Policy 3.1)

- **Heat Mitigation**: Because data centers generate significant heat, the Township is encouraged to require applicants to submit a Thermal Impact Mitigation Plan that outlines strategies for waste heat reuse or dissipation, which minimizes environmental impacts of development to protect the health, safety and welfare

of the public' (of Policy 3.2). Encouraging cool roofs, green roofs/shade trees, and light-colored exterior walls help to mitigate heat island effect and incorporate 'sustainable building, site design and community design practices' (of Policy 3.4).

- **Electronic Waste**: The Township may wish to include procedures for safe removal and recycling or disposal of server infrastructure, hazardous materials, batteries, electronic waste, and related products which supports the goal of FutureLV to 'provide environmentally responsible and economical solid, electronic and hazardous waste disposal and recycling' (of Policy 3.2).

- **Parking**: Because data centers typically have fewer employees than other types of industrial uses, applying parking minimum standards that are typical of other types of industrial uses may lead to overbuilt, unused impervious surfaces that exacerbate stormwater impacts. The LVPC recommends setting a specific parking requirement, such as one space per on-site employee, which supports best-practice contextual standards that match development intensity with appropriate infrastructure capacity (of Policy 1.1) and reduce impervious surfaces and protect water sources (of Policy 3.3)

The LVPC is copying representatives of the Nazareth Area Plan on this review letter to 'coordinate land use decisions across municipal boundaries' as (of Policy 1.4).

Municipalities, when considering subdivision/land developments, should reasonably attempt to be consistent with *FutureLV: The Regional Plan*, as required by the Pennsylvania Municipalities Planning Code (MPC) [Article 1§105, Article III§303, §304 & §306(a), Article VI§603(j)]. The LVPC review does not include an in-depth examination of plans relative to subdivision design standards or ordinance requirements since these items are covered in the municipal review.

Sincerely,

Jacob Weinberg
Community and Regional Planner

Cc:
Bradford Flynn, Bath Borough Manager;
Belinda Roberts, Bushkill Township Manager;
John Defassio, Chapman Borough Secretary/Treasurer;
Lori Seese, Lower Nazareth Township Planning and Zoning Administrator;
Stephen Nowroski, Moore Township Manager;
Theresa Fedele, Nazareth Borough Assistant Secretary/Treasurer;
Candace Keller, Stockertown Borough Secretary;
Mark Saginario, Tatamy Borough Manager;
Lisa Klern, Upper Nazareth Township Manager.