

PWC - DCOZOD

October 24 , 2022

Site Selection Principles

Subsequent to collecting feedback from the community and stakeholders, the project team prepared the below site selection principles which guided the team in refining what characteristics make a site favorable or unfavorable for inclusion in the data center overlay.

Minimize negative impact to historic (and cultural) resources

 Avoid locating directly adjacent to cultural resources sites, unless adequate mediating measures (buffers, change of level) can be implemented



Protect Historic and Cultural Resource Sites

The site selection principles were then translated to physical site characteristics

that could be mapped throughout the County for further evaluation by the

project team. The translation of the Site Selection Principles are shown below.

Site Suitability Characteristics

- Historic Sensitivity Areas
- County Registered Historic Site
- Prehistoric Sensitivity Area



Locate near existing infrastructure to support data center development

- Electrical power supply
- Water supply



- < 1 miles from existing high voltage power lines
- < 1 miles from existing water infrastructure



Minimize negative impact to environmentally sensitive areas

- Avoid locating in or adjacent to environmentally sensitive areas, unless adequate mediating measures can be implemented
- Avoid sites with steep slopes that will require significant aradina.
- · Avoid flood-prone areas

Avoid Protected Open Space

- Resource Protection Areas (RPA)
- Proposed Environmental Resource Overlay
- Avoid 100 year flood plain
- Avoid steep slope areas



Minimize negative impact to public open space and recreational facilities

 Avoid locating directly adjacent to open space and recreational facility sites, unless adequate mediating measures can be implemented



Minimize negative impact to public open space and recreational facilities

 Avoid locating directly adjacent to open space and recreational facility sites, unless adequate mediating measures can be implemented



Avoid locating data centers adjacent to residential areas,

existing and planned mixed-use activity centers, and social facilities such as schools and day care centers, unless adequate mediating measures can be implemented.



Identify Areas with Compatible Land Uses

- Existing Planned Industrial (approved long range land use plan)
- Proposed Planned Industrial (2040 proposed long range land use plan)
- Suitable Zoning

Site Suitability Characteristics

The site suitability characteristics were then separated into two categories; suitable site characteristics and unsuitable site characteristics. The suitable site characteristics were assigned a weight based on the desirability of that criteria for data center uses and then mapped into a heat map format to demonstrate which areas of the County could be most suitable for inclusion with the data center opportunity overlay district.

	Suitability Characteristic	Measurement	Opacity (%)
Suitable Site Characteristics	Electric Utility Access	Distance from HV power lines - < .25 mile - 0.25 - 0.5 mile0575 mile75 - 1.0 mile - > 1 mile	25 20 15 10 0
	Water Access		
		Distance from water infrastructure - < .25 mile - 0.25 - 0.5 mile0575 mile75 - 1.0 mile - >1 mile	15 12 9 6 0
	Existing Planned Industrial (Land Use Plan)		
		FEC, Flexible Use Employment Center EI, Industrial Employment TF, Technology / Flex	15
	Proposed Planned Industrial (Long-Range Land Use Plan)		
		- I-3 Industrial - I-4 Industrial	15
	Suitable Zoning		
		M-1, Heavy Industrial M-2, Light Industrial M/T, Industrial Transportation PBD, Planned Business District	10

In a similar manner the unsuitable site characteristics for inclusion in the data center overaly were mapped but instead of including them in the heat map they were applied in a separate layer as areas which were deemed not suitable for data center development, unless adequate mediating measures can be implemented. While some mitigation can be accomplished through updated design standards and requirements within the Overlay, depending on the level of mitigation needed, inclusion in the Overlay might not be recommended, since by-right data center development may be permitted based on the underlying zoning district. In some instances, 0.25-0.5 mile radii (or "buffers") were applied in GIS to help graphically identify cultural, historic, or open space features throughout the County so that potential impacts could be identified on a Countywide analysis.

	Suitability Characteristic	Measurement
	Avoid Flood Hazard	
		Within 100-year flood plain
	Avoid Steep Slopes	
		Slopes > 15%
Unsuitable Site Characteristics	Protect Parks & Open Spaces	
		Not within .25 miles of: - Existing Parks and Open Space - Proposed Parks and Open Spaces Not within: - Protected Open Space
	Protected open Space	
		Not within: - Resource Protection Area (RPA) - Propose Environmental Resource Overlay
	Protect Historic and Cultural Resources	
		Not within .25 mi of: - Historic Sensitivity Areas - County Registered Historic Site - Prehistoric Sensitivity Area Not within .5 miles of: - Manassas Battlefield - Bristow/Kettle Run Historic Area