

# Prince William Digital Gateway Special Planning Area Corridor Plan 3/9/2022

## **Purpose and Vision**

This extension of the Gainesville Activity Center and adjustment to the Rural Area boundary is primarily an economic development initiative that will enable the County to attain a 35% sustainable, diversified commercial tax base and to enhance significantly the local economy. Allocating land in the Corridor for new data centers (a targeted industry commercial “employment” use) is critical to ensure future economic growth and the financial health of Prince William. This will allow the County to compete on a regional and national basis for new high-tech investment, jobs and facilities. Being viewed as a “high-tech County” will benefit George Mason University, Northern Virginia Community College and the *Science and Technology Employment Center @ Innovation*. Sites located within one mile of existing High Voltage electric transmission and existing fiber corridors are considered optimal for data centers, because less new infrastructure is needed.

Providing the opportunity for new additional data centers within the Corridor will allow the scarce amount of land currently planned and well-suited for a diversity of other important commercial tax base and employment enhancing uses – such as life sciences industry, bio-medical research, industrial flex, industrial and specialized logistics/supply chain facilities – to remain available for these uses. This will prevent the County from becoming a “data center only” economy. Allowing data center use here will relieve the pressure for data centers elsewhere in less suitable locations.

This Plan seeks to create a more balanced mix of employment, retail and residential uses in the Gainesville Activity Area, in a manner which emphasizes the preservation of abundant open spaces, the establishment of new public outdoor recreation, and context-sensitive siting of data centers at a low, transitional, overall intensity of up to 0.30 FAR. The low overall development level proposed, the substantial acreage in the Corridor, and the proximity to Dominion Virginia Power’s existing high voltage major transmission corridor and fiber optic availability, combine to provide a unique opportunity to achieve County objectives related to economic development and County-wide Strategic Plan goals, while at the same time protecting, preserving, and enhancing the local natural ecosystem. Absent this Plan change, much of the land within the corridor is unlikely to stay in its current condition.

The implementation of the recommendations identified herein will establish an interconnected greenway park, local history parks, multi-use trails and protected open space, that preserve and enhance the significant environmental and cultural assets found within the Corridor – such as Little Bull Run, Catharpin Creek, Lick Branch, Conway-Robinson State Forest Park and the Manassas National Battlefield Park. The new public parks recommended in this Plan will highlight a variety of cultural and natural resources to be protected, interpreted and open to the public. An extensive multi-use trail network (including equestrian) should be established to connect and enhance the new cultural and natural resource protected open spaces established pursuant to this vision, generally as shown on Exhibit 1 (Public and Private Protected Open Space Map).

New non-public uses in the Corridor shall be limited to data centers, at a maximum overall density/intensity of development of 0.30 FAR for the entire Corridor. This level of development is approximately 1/3 of that allowed in the Data Center Opportunity Zone Overlay District and 1/2 of that established in the adjacent Gainesville Crossing data center campus (which is located across Route 29 and abuts the Manassas National Battlefield Park). The recommended transition to a lower intensity of development within the Corridor is appropriate, given the close proximity of the Manassas National Battlefield Park, the Conway-Robinson State Forest Park and the three major tributaries of Bull Run. This limited intensity and the “enhanced practices” described below, are intended to result in (i) lower building heights where warranted, (ii) appropriately-sized buffered setbacks that are larger from properties abutting the perimeter of the Corridor, and (iii) the preservation of over 370 acres of protected public and private open space in natural area corridors (including a recommended donation of land: for an extension of the County’s Catharpin Greenway Linear Park; for an enlargement of the Manassas National Battlefield Park; and, for the establishment of a park memorializing the minority community history of the “Settlement” and the Thornton Schoolhouse).

Over an extended period (8-15 years), this Corridor Plan may result in the phased establishment of up to a total of approximately 27 million gross square feet of data center development, which should be appropriately and carefully designed within the Corridor pursuant to individual site-specific zoning reviews. Data Centers, compared to other types of commercial uses, result in fewer vehicle trips, lower lighting levels and less outdoor noise. An overall maximum 0.30 FAR and three (3) floor data center building height limitations (with lower height limitations being established where warranted with each site-specific zoning review) are intended to result in appropriate set backs from sensitive natural area corridors to ensure the preservation and protection of open space. Extensive berming and/or reforestation/preservation of existing forests should be employed in areas where there are viewshed impacts from Manassas National Battlefield Park (to the east), as well as Heritage Hunt and Catharpin Valley (to the west). Height suitability to protect specific viewsheds should be evaluated during rezoning, using line of sight

and topographic analyses, balloon testing, digital imaging and LIDAR (Light Detection and Ranging) technology.

This purpose and vision can only be accomplished if certain key land use and development “enhanced practices” are utilized. These recommended objectives and standards are intended to be in addition to (and not a replacement of) other applicable Comprehensive Plan recommendations and Zoning Ordinance Standards. Proposed rezoning applications to implement this Corridor Plan are encouraged to be creative and will be reviewed for enhanced implementation, proffers and impact mitigation strategies. There should be a heightened emphasis on environmentally sensitive design, including the use of indigenous plants, as well as the preservation of existing land forms and environmental resources, in order to ensure that the data centers blend into their natural surroundings.

## **Planning History of Land within Corridor**

The planning history for the Pageland Lane Corridor is unlike other land in the Rural Area. Prior to 1998, all of the land within the Corridor was designated Semi-Rural Residential (SRR) in the adopted Comprehensive Plan. See Exhibit 2 (Pre-1998 LRLU Map). This designation envisioned 1 to 5 acre residential lots (some with public sewer). It did not envision large farms, estates or rural landscapes. The availability of public water and sewer was based upon engineering design rather than one uniform policy decision. None of this land was deemed prime agricultural or forested land. A-1 and SR-5 zoning at the time allowed 1 to 5 acre residences. These are now grandfathered.

Land within the Corridor was not re-designated Agricultural or Residential Estate (AE) until the County-wide residential growth management initiative (sometimes referred to as the “Rural Crescent”) was adopted on August 4, 1998. This initiative was based on the 1998 finding that “Sufficient vacant and under-developed land exists outside the Rural Area that the Rural Area is not needed to accommodate further residential growth for the next 20 years.” (1998 Comprehensive Plan, Introduction, page 3.) The primary purpose of the 1998 Rural Area Plan change within the corridor was to steer residential growth to existing developed areas, rather than to ensure the sustainability of farming or the rural way of life. An extension of the Gainesville Activity Center to allow data center uses is not contrary to this purpose of the Rural Area Plan and is neutral to its effectiveness to accomplish that purpose.

By 2008, the National Park Service (“NPS”) had coordinated with Dominion Virginia Power to consolidate and upgrade multiple north-south, high voltage lines into one 250 feet wide *major transmission corridor* between the western edge of the Manassas National Battlefield Park and Pageland Lane. That same year, NPS adopted a General Management Plan (“GMP”) for the Battlefield Park, which incorporated this major electric transmission corridor. Another element of this GMP was the plan for a *Battlefield By-Pass* road network to reduce the non-park traffic on

Va. Routes 29 and 234 through the Battlefield Park. The northern *Battlefield By-Pass* segment upgraded portions of Sudley Road to 4 lanes. The western *Battlefield By-Pass* segment widened Pageland Lane north of Route 29 to 4 lanes. See Exhibit 3 (NPS Battlefield Bypass Plan). Later, a southern *Battlefield By-Pass* segment showed an upgrade of Pageland Lane south of Route 29 to 4 lanes and extended it eastward through the Parkridge Center and Battlefield Business Park commercial areas to Fairfax County. All of these road segments remained local roads.

By 2012, Prince William, Loudoun, the Virginia Department of Transportation (“VDOT”) and the NPS had jointly planned the alignment of a *Bi-County Parkway* (“BCP”) in Prince William and Loudoun. This high volume, high speed, limited access *regional roadway* created a 200-foot-wide major transportation corridor along Pageland Lane close to the 250-foot-wide Dominion Power major transmission line corridor. VDOT designated this major transportation corridor part of a larger region-serving “*Corridor of Statewide Significance*.” NPS supported the BCP as a replacement of its planned western *Battlefield By-Pass* segment, as a means to reduce traffic through the Battlefield Park. However, the Bi-County Parkway and the western *Battlefield By-Pass* road segment were both removed from the County’s Comprehensive Plan in 2016. This removal of planned north-south road improvements west of the Manassas National Battlefield Park has resulted in a continued increase in congestion from commuter and commercial truck traffic within the Battlefield and along Pageland Lane.

The southern *Battlefield By-Pass* segment remains in the Comprehensive Plan and is renamed the *Route 29 Alternate*. The northern and southern *Battlefield By-Pass* segments remain in the County Mobility Plan. The VDOT “*Corridor of Statewide Significance*” designation remains.

## **Long Range Land Use**

The Long Range Land Use Map implements the purpose and vision for the 2,133 acre Prince William Digital Gateway Special Planning Area. See Exhibit 4 (Proposed LRLU Map). The Environmental Resource (“ER”) designated area is unchanged, and will be instrumental in establishing, through rezoning, specific public and private protected natural open space. The land within the Corridor is planned Technology/Flex (“T/F”), with some land also planned Parks & Open Space (P&OS) and County Registered Historical Site (“CRHS”). The Rural Area boundary is adjusted to that shown on Exhibit 4.

New non-public uses within the Corridor will be limited to data centers, at a maximum overall total intensity of up to 0.30 FAR for the entire Corridor. Data Center buildings will be limited to no more than three floors and no more than 80 feet in height (including rooftop equipment). The specific size and boundaries of proffered public parks will be determined through the conditional zoning process.

## Key Policies and Recommendations

- **Mobility Connections**

- Upgrade Pageland Lane within the Corridor to a MA-1 (128 ft. row) 4 lane cross section within the Corridor, intersecting Sudley Road in a manner which also benefits vehicular and pedestrian access to Catharpin Park. Improvements to Pageland Lane and Sudley Road, as well as the construction by others of the Route 29 Alternate, are consistent with the National Park Service plan for a “Battlefield By-Pass” to relieve commuter and commercial truck cut-through traffic in the Manassas National Battlefield Park. These local road improvements are also consistent with County objectives to provide better local north-south local access to relieve the overburdening of nearby rural and local collector roads. See Exhibit 5 (Mobility Plan) and Exhibit 3 (Battlefield By-Pass Plan – with Corridor Plan improvements in yellow).
- Preclude Commercial Truck Traffic – consideration should be given to precluding through commercial truck traffic on that portion of Sudley Road between Gum Spring Road and the Route 29 Alternate, as well as on that portion of Route 29 within the Manassas National Battlefield Park. Through commercial truck traffic should continue to be precluded from Groveton Road and Featherbed Lane within the Manassas National Battlefield Park.
- Enhance Multimodal Connectivity – enhance local environmental assets through the creation of a linear park and trail network, providing connections between and greater access to: Conway-Robinson State Forest, the Manassas National Battlefield Park, the Catharpin Greenway and Catharpin Park. (See Exhibits 1 and 5.)
- Major Shared Use Path – establish a 10-foot wide-shared Use Path as a major north-south trail connection from Catharpin Park on Sudley Road to Route 29, within the east side of the Pageland Lane Right of Way to provide new non-motorized transportation options. (See Exhibit 5.)
- Connections to MNBP – enhance the convenience and number of pedestrian and equestrian connections to Manassas National Battlefield Park.
- Trail Improvements – improve safety and visitor experience along recreational trails through appropriate and consistent trail routes and distance markings, and incorporate technology such as Quick Response (QR) codes to provide trail maps, contact information and user guides.
- Uniform Resource Locator – provide information codes, such as Uniform Resource Locator (URL) codes, so that information on recreational and active mobility trails can be translated into any language with a smart phone.
- Multi-Modal Options – create a variety of accessible recreational trail experiences (bicycle, equestrian, nature trails, etc.) for a diverse mix of populations (i.e., various age groups, level of mobility, etc.).

- Expand equestrian and greenway trail opportunities – include the creation/development of trailhead parking areas as necessary to improve trail use/access. A preferred location for trailhead parking is to expand the unfinished railroad bed proposed park between Conway-Robinson Forest Park and Pageland Lane. (See Exhibits 1 and 4.)
- **Cultural Resources/Preserving Local History**
  - Detailed Viewshed Analyses – detailed topographic analyses, line of sight analyses, digital imaging, LIDAR and balloon tests are encouraged to be used during zoning review in order to evaluate potential impacts to important interpretive site viewsheds from within the Manassas National Battlefield Park. See Exhibit 6 (Cultural Resource Sites Map). A variety of means to mitigate viewshed impacts should be considered, including but not limited to, proffered maximum elevations about mean sea level for data center buildings (including rooftop equipment) and parking lot lighting fixtures.
  - Acknowledgment of historic significance – historical markers, interpretive kiosks and protected open space should be used to preserve areas of local historic significance, including the “Settlement” minority community and Thornton School.
  - Add the Manassas National Battlefield Park legislative boundary to the Long-Range Land Use plan map. (See Exhibits 1 and 4.)
  - Honeywood – document and memorialize the antebellum dwelling known as Honeywood, which is located on the original Pageland landholdings of the Marsteller family. If warranted and feasible, preserving the original antebellum portion of the structure should be considered.
- **Public Open Space/Parks**
  - Catharpin Greenway – provide an extension of the County’s planned Catharpin Greenway linear natural habitat park and multi-use trail network, from the western perimeter of the Corridor at Heritage Hunt, along Little Bull Run to the eastern perimeter of the Corridor, connecting to a new north-south major trail connection along Pageland Lane and to the Manassas National Battlefield Park (through lands owned by the Civil War Battlefield Trust). (See Exhibits 1, 4 and 5.)
  - Encourage an “adopt-a-trail” program be established by data center owners, which will provide a maintenance fund for County recreational trails with the Corridor.
  - Manassas National Battlefield Park – encourage the expansion of the Manassas National Battlefield Park to its current legislative boundary.
  - The “Settlement” Community Thornton School – establish a park to memorialize this minority community history.
- **Protect the Environment**
  - Protected Open Spaces – prioritize the establishment of a substantial amount of protected open space (containing forest and other natural areas, sensitive Environmental Resources and habitat corridors) primarily along the Little Bull Run,

Lick Branch and Catharpin Creek stream valleys (which may include adjoining bluffs, contiguous steep slopes with highly erodible soils, connected wetlands and riparian forests).

- Prioritize the restoration of any Environmental Resource (“ER”) and riparian forested areas within protected open space areas, which have previously been disrupted or impaired by the establishment of three nearby large golf course communities that outfall to Little Bull Run.
- Primary RPA, Floodplain, Creeks, Streams – make a priority the perimeter buffering of existing RPAs and flood plains of Little Bull Run, Lick Branch and Catharpin Creek, beyond what current standards require.
- Buffer along Northside of Rt. 29 – establish a seventy foot deep forested buffer along the north side of Route 29 between Conway-Robinson State Forest Park and Pageland Lane, through tree preservation and reforestation.
- Native Plantings along Roadways – utilize, to the extent possible, native plant species in landscaping along public and private road rights of way and in medians to enhance the streetscape and reduce adverse environmental impacts of roadway improvements.
- Maintain and protect wildlife corridors along the portions of Little Bull Run, Catharpin Creek and Lick Branch that are within the Corridor.
- Virginia Conservation Easement Act – utilize qualified third-party Virginia Conservation Easement Act conservation easements to permanently protect public and private natural open space areas.
- LIDs, Minimize stormwater runoff – through the use of Low Impact Development (“LID”) design, wet ponds, and other methodologies recommended in current state and local stormwater ordinances. Address water quality through the use of enhanced Low Impact Development practices, such as cisterns, permeable pavement and rain gardens. Low Impact Development and other measures which reduce post-development phosphorous off-site pollutant loads beyond ordinance requirements are encouraged.
- Minimize land erosion and siltation during construction by providing enhanced erosion control measures beyond what current standards require (close to environmentally sensitive areas, such as along stream valleys, wetlands, and steep slopes).
- Energy Efficiency – encourage data center buildings to meet energy efficiency design and operation standards, such as those contained in programs such as the Energy Star or LEED programs. To be certified under Energy Star or a similar energy efficiency program, building energy performance standards set by EPA must be met.
- Provide electric vehicle (“EV”) charging stations in data center employee parking areas to encourage EV use.
- DCSM requirements for canopy coverage and internal parking lot landscaping should be met, except that plantings may be concentrated to further enhance buffer and viewshed protection areas if requested by the Manassas National Battlefield Superintendent.

- 20% Natural Open Space – encourage a minimum of 20% natural open space on each development, emphasizing the preservation of existing forest cover and other natural resources where they exist and restoration of forest cover where it does not exist.
- **Water and Sewer**
  - The Corridor will be served with public water and sewer, which will be extended from existing facilities along Route 29 as shown on Exhibit 7 (Water and Sewer Map):
    - Water will be extended north along Pageland Lane from an existing main along Route 29. If determined necessary by PWCSA, the waterline may be looped back into the existing system via a connection to the existing waterline along Catharpin Road. No wells or other groundwater sources should be used to provide water service to data center facilities. Existing wells within the Corridor should be removed or abandoned per Health Department requirements.
    - Sewer will be provided to the data centers through use of a PWCSA gravity sewer that will be connected to a proposed pump station or stations located within the Corridor. The pump station(s) will be connected to the existing PWCSA sewer system via a proposed force main running south along Pageland Lane to connect to existing PWCSA force main(s) at the intersection of Route 29 and Heathcote Boulevard. As an alternative to the gravity sewer/pump station/force main concept, a low pressure force main system may be considered if such a system can provide the necessary capacity and is approved by PWCSA. No private septic systems will be used to serve data center development. All existing septic systems should be removed or abandoned per Health Department requirements.
- **Community Design**
  - Encourage unified design guidelines for landscaping, signage and architectural standards for data center sites visible from Pageland Lane. These guidelines should complement and reflect the nearby historic and natural resources.
  - Building façades facing Manassas National Battlefield Park should be non-reflective and dark green or dark brown in color. The Planning Director may approve other colors provided a rezoning Applicant demonstrates the other color(s) will facilitate the ability for the building façade to blend into the horizon or tree line or will be screened by other topography or other buildings. Alternative paint colors or patterns may be utilized on rooftop screening facing Manassas National Battlefield Park.
  - Screening – in order to minimize visibility from adjacent public roads and adjacent properties, all rooftop mechanical equipment should be screened. Ground level mechanical equipment not screened by a principal building, topography or vegetation should be screened by a visually solid fence, screen wall or panel, or



other visually solid screen that is constructed with materials and colors compatible with those used in the exterior construction of the principal building.

- Architectural treatments – the use of architectural treatments such as variations in building materials, patterns, and texture, and other design elements are recommended to provide visual interest. These treatments are not recommended for portions of buildings facing the Manassas National Battlefield Park.
- Building roofs should be non-reflective and a color that will help the roof to blend into the horizon or landscape.
- Lighting – strict conformance with outdoor lighting standards, especially the use of “full cut-off fixtures” for all parking lot and building mounted lighting, is critical to enhance the character and context of the Manassas National Battlefield Park and Conway-Robinson State Forest Park.

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