

May 16, 2022

Mr. Bryce Barrett Senior Planner Prince William County Planning Office 5 County Complex Court, Suite 210 Prince William, VA 22192

RE: 4th Submission of Post-Initiation Materials for Comprehensive Plan Amendment CPA #2021-00004 (PW Digital Gateway Corridor) christopher #20143

Dear Mr. Barrett:

Please find enclosed the following items:

- Revised and shortened *Special Planning Area Corridor Plan* text (with five (5) map exhibits including a new map showing Tree Canopy Protection and Afforestation Areas)
- Line of sight/digital massing studies for the Snyder and Ghadban properties, which show that data centers will not be seen from the Battlefield or Heritage Hunt, if appropriate height limitations are imposed.

This proposed plan text continues to propose the following Long-Range Land Use designations for the 2,133 +/- acre corridor:

- 43 +/- acres remain Agriculture/Forestry/Low Density Residential
- 90 +/- acres replanned to POS (in anticipation of the Commonwealth's future expansion of Conway Robinson State Forest and the establishment of a County trailhead park)
- 2,000 +/- acres replanned to TF (to accommodate data centers at an overall intensity of 0.30 FAR, calculated upon the overall gross acreage planned TF – including ER designated land)
- ER is extended along one stream RPA (to coincide with the recent County 2040 Draft LRLU map)

If the Corridor Plan is implemented generally as shown on Exhibit A to the text, 35 percent or more of the gross land area within the corridor will be open space.

Adoption of this proposed Plan Amendment will enable Prince William County to realize these significant public benefits:

- 1. Increase in public outdoor passive recreation opportunities
- 2. Increase in the acreage of parkland (local and federal)
- 3. Increase in the acreage of protected natural resource area open space

christopher consultants 9900 main street, suite 400, fairfax, va 22031 (p) 703.273.6820 www.christopherconsultants.com

4th Submission of Post-Initiation Materials for Comprehensive Plan Amendment CPA #2021-00004 (PW Digital Gateway Corridor) May 16, 2022 Page 2

- 4. Increase in acreage of protected riparian forest along major streams within the Occoquan Watershed
- 5. Increase in the mileage of public pedestrian, bike and equestrian trails
- 6. Increase in the acreage of State Forest
- 7. Increase in the commercial tax base

We look forward to continuing to work with you and other County staff. We are available for meetings (Zoom or in person) to answer questions or discuss the CPA application. Thank you for your courtesies in this regard.

Sincerely,



Michael S. Kitchen, P.E. Vice President

cc: Tony Calabrese John L. McBride Mary Ann Ghadban Chad Baird Mark Looney Jonelle Cameron Nick Blessing Chris Curtis Eric Siegel

Enclosures

#5308186v2



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> PROTECTED OPEN SPACE

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2	BRAWNER HOUSE - ARTILLERY LINE/UNFINISHED RAILROAD	325 FEET
3	BRAWNER HOUSE - ARTILLERY LINE	327 FEET
4	BRAWNER HOUSE - ENTRANCE DRIVE	309 FEET









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VISUAL IMPACT STUDY - BRAWNER HOUSE - ARTILLERY LINE PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES

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Viewshed from Brawner House -Artillery Line

VISUAL IMPACT STUDY - BRAWNER HOUSE - ARTILLERY LINE

PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES

PHOTO TAKEN 3/29/2022

Viewshed from Brawner House -Artillery Line

VISUAL IMPACT STUDY - BRAWNER HOUSE - ARTILLERY LINE

PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES

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Viewshed from Boundary Tree

VISUAL IMPACT STUDY - BOUNDARY TREE SITE PWC DIGITAL GATEWAY

VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES

PHOTO TAKEN 3/29/2022

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Viewshed from **Boundary Tree**

VISUAL IMPACT STUDY - BOUNDARY TREE SITE PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES

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VISUAL IMPACT STUDY - BRAWNER HOUSE - ENTRANCE DRIVE

PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES

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VISUAL IMPACT STUDY - BRAWNER HOUSE - ENTRANCE DRIVE

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PROPOSED DATA CENTER BLDGS (BEHIND EXISTING TREES) HT: APPROX 50' FROM VANTAGE POINT

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GRAPHIC SCALE 1" = 75' This plan is preliminary in nature and is subject to change based on site surveying and final site engineering.

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EXHIBIT

Prince William Digital Gateway Special Planning Area Corridor Plan 5/16/2022

Purpose and Vision

This addition of land to be reserved for Targeted Industry employment use in the Gainesville Regional Activity Center (through an extension of the I-66/Route 29 Activity Center) is primarily an economic development initiative that will enable the County to both sustain a 35% sustainable, diversified commercial tax base as well as enhance the overall local economy. Allocating additional land for new data centers is critical to ensure future economic growth and financial health for Prince William. This will allow the County to compete on a national and regional basis for new high-tech investment, jobs and facilities. Being viewed as a "high-tech County" will not only enhance the local economy and create jobs, it will benefit George Mason University, Northern Virginia Community College and the *Science and Technology Employment Center @ Innovation*.

The Corridor is uniquely suitable for Data Centers. Sites located within one mile of existing high-voltage electric transmission and fiber optic corridors are considered optimal for data centers, because less new infrastructure is needed. The Corridor has large undeveloped parcels with great potential redevelopment to clustered data center campuses, building upon the other nearby data center campuses within the adjacent I-66/Route 29 Activity Center. Data centers, compared to other types of commercial uses, result in fewer vehicle trips, lower lighting levels and less outdoor noise.

Reserving the Corridor for data center use will take pressure off commercially-zoned properties elsewhere, encouraging their use by other important Targeted Industry employment uses – such as life sciences industry, bio-medical research, industrial flex, industrial and specialized logistics/supply chain facilities. This diminishes the chance of a "data center only" economy. Allowing data centers here will also relieve the pressure for data centers elsewhere in less suitable locations.

This Corridor Plan is intended to create a more balanced mix of employment, retail and residential uses in the overall Gainesville Regional Activity Center, in a manner which emphasizes the preservation of abundant natural open space, the establishment of new public outdoor recreation areas, and the context-sensitive siting of data centers at a transitional overall gross land area intensity of not more than 0.30 FAR. Substantial contiguous acreage available for redevelopment, a close proximity to Dominion Virginia Power's high voltage major transmission corridor, and on-site multiple fiber optic availability combine to provide a unique opportunity to achieve long-term County objectives related to economic development and the Strategic Plan , while protecting, preserving, and enhancing the natural ecosystem. This Corridor Plan seeks to shape a new *high-tech* identity for Prince William and to establish a unique *sense of place* in Gainesville, one which harmonizes the importance of both nature and technology.

Without this plan guidance and its associated implementation, many of the environmental and cultural resources within the Corridor will continue to degrade over time. It is unlikely the current development pattern will continue.

Implementation of the Corridor Plan recommendations will establish an interconnected hierarchy of greenway parks, local history-oriented community parks, multi-use trails, trail head parking areas, and private open space, which is intended to 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 and the Manassas National Battlefield Park. New public parks will connect and highlight a variety of cultural and natural resources that are protected, researched, interpreted and opened to the public. An extensive multi-use public trail network (accommodating bicycle, pedestrian, orienteering, and equestrian uses) will connect and provide access to new cultural and natural resource parks, generally as shown on <u>Exhibits</u> A (Protected Open Space) and C (Mobility Network).

New non-public uses in the Corridor shall be limited to data centers, at a maximum overall gross land area intensity of 0.30 FAR for the entire Corridor. This lower transitional 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). A transition to a lower intensity of development within the Corridor is appropriate, given the close proximity of the Manassas National Battlefield Park, Conway-Robinson State Forest and three major tributaries of Bull Run. This lower intensity and the "enhanced practices" recommended herein, are intended to result in (i) lower building heights where warranted to protect important viewsheds, (ii) appropriately-sized natural area setbacks from properties abutting the perimeter of the Corridor, and (iii) the preservation of protected public and private open space in natural area corridors and on important historic interpretative sites. This protected open space includes an extension of the Catharpin Greenway Linear Park; an enlargement of the Manassas National Battlefield Park, the "Settlement" and the Thornton Schoolhouse, and an expansion of Conway-Robinson Forest.

The design of data centers in the Corridor should be context-sensitive and responsive to adjacent uses and activities. Building heights for individual data centers should be established based on the site's existing and/or proposed topography and vegetation (informed by detailed viewshed studies performed with each site-specific zoning review). Screening techniques such as berming, afforestation and preservation of existing tree canopies 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). Where appropriate, height suitability to protect specific viewsheds should be evaluated during rezoning, using LIDAR (Light Detection and Ranging) technology-assisted line-of-sight analyses, drone vertical horizon visual testing, Augmented Reality, massing digital imaging, or other similar techniques and technologies.

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 County Ordinance Standards.

Proposed rezoning applications which implement this Corridor Plan are encouraged to be creative and will be reviewed for enhanced implementation, proffers and impact mitigation strategies. A heightened emphasis on environmentally sensitive design, including the use of indigenous plants and the preservation of environmental resources is appropriate, in order to ensure that the data centers blend into their natural surroundings. Innovative ways to deploy energy and water saving technologies is encouraged.

Long-Range Land Use

The Long-Range Land Use Map implements a unique purpose and vision for the 2,133 acre Prince William Digital Gateway Special Planning Area. See <u>Exhibit</u> B (Proposed LRLU Map). The Environmental Resource ("ER") designated area is extended along one stream RPA. The ER designation will be instrumental in establishing, through conditional rezoning, specific public and private protected natural open spaces. Most of the land within the Corridor (approximately 2,000 acres) is planned Technology/Flex ("TF"), with low intensity levels that are commensurate with the integration of natural and cultural resources. Approximately 43 acres remain planned Agricultural Estate (AE) and approximately 90 acres is planned Parks and Open Space (POS), to establish a new local park (Freedom Park, shown on <u>Exhibit</u> A) and to recognize state, local and private efforts to expand Conway Robinson State Forest.

New non-public uses within the Corridor will be limited to data centers, at a maximum overall gross land area intensity of no more than 0.30 FAR for the entire Corridor. This includes a limitation of secondary office use to ten percent of overall building floor area. Stand-alone office uses are prohibited, although office uses supportive of and accessory or secondary to data centers are permitted when located within a data center building. Transects T-3 and T-2 are intended to shape the transition of intensities within the Corridor to be compatible with nearby natural and cultural resources. The specific location, size and boundaries of public parks and private open space will be determined during the site-specific conditional zoning process. However, the location, scope and extent of parks, trails and open spaces that are determined at rezoning should be in substantial conformance with Exhibits A (Protected Open Space) and C (Mobility Network). If implemented generally as shown on Exhibit A, this Plan will result in at least 35 percent of the gross land area within the Corridor being Open Space.

Key Policies and Recommendations

<u>Mobility Connections</u>

<u>Upgrade Pageland Lane within the Corridor</u> to a MA-1 (128 ft. ROW) 4 lane cross section, intersecting Sudley Road in a manner which will enhance safe 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 local collector roads. See Exhibit C (Mobility Network).

- <u>Prohibit Commercial Truck Traffic</u> consideration should be given to prohibiting through commercial truck traffic on that portion of Sudley Road between Gum Springs 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 prohibited within the Manassas National Battlefield Park on Groveton Road and Featherbed Lane.
- <u>Enhance Multimodal Connectivity</u> enhance cultural and environmental assets through the creation of a linear park and multi-purpose trail network, providing connections between and greater access to: Conway-Robinson State Forest, the Manassas National Battlefield Park, the Catharpin Greenway and Catharpin Park. (<u>Exhibits</u> A and C.)
- <u>Major Shared Use Path</u> establish a 10-foot wide-shared Use Path as a major northsouth trail connection from Catharpin Park on Sudley Road to Route 29 (within the east side of the Pageland Lane Right of Way) in order to provide new non-motorized transportation options. (See <u>Exhibit</u> C.)
- <u>Connections to MNBP</u> enhance the convenience and number of pedestrian and equestrian connections to the Manassas National Battlefield Park in coordination with the National Park Service.
- <u>Trail Improvements and Safety</u> 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.
- <u>Uniform Resource Locator</u> provide or facilitate the installation of information codes, such as Uniform Resource Locator (URL) addresses or Quick Response codes (QR), so that information on recreational and active mobility trails can be translated into any language with a smart phone.
- <u>Multi-Modal Options</u> create a variety of accessible recreational trail experiences (bicycle, equestrian, nature trails, orienteering, etc.) for a diverse mix of populations (i.e., various age groups, level of mobility, etc.) in a manner that creates new community amenities.
- <u>Expand equestrian and bicycle trail opportunities</u> include the development of trailhead parking areas to improve bicycle and equestrian trail use/access. A preferred location for trailhead parking is to expand the proposed Unfinished Railroad Park southward, to encompass some of the land between Conway-Robinson Forest and Pageland Lane, labeled Freedom Park on <u>Exhibit</u> A.

<u>Cultural Resources/Preserving Local and National History</u>

O <u>Detailed Viewshed Analyses</u> – use detailed topographic analyses, LIDAR-assisted line of sight analyses, digital imaging, drone visual horizon tests, Augmented Reality, massing imaging or other techniques and technologies during zoning review to evaluate potential impacts of data center buildings on important interpretive and trail viewsheds from within the Manassas National Battlefield Park. A variety of means to mitigate viewshed impacts should be considered, including but not limited to: proffered maximum elevations above mean sea level for data center buildings (including rooftop equipment, screens and parapets) and parking lot lighting fixtures; berming; and

afforestation/reforestation/vegetation screens. Berms visible from the National Battlefield Park should be contoured in a natural form that does not require mowing and contains an organic arrangement of native plants.

- <u>Acknowledgment of historic significance</u> historical markers and interpretive kiosks should be used to highlight local history, such as the "Settlement" minority community, the Thornton School, the Pageland II farmhouse (c. 1865), the Honeywood Homestead and historic cemeteries.
- Cultural Resource Inventories should be performed prior to the commencement of development and donated to the County.
- <u>Add the Manassas National Battlefield Park legislative boundary</u> to the Long-Range Land Use plan map.
- <u>Honeywood Homestead</u> (c. 1830) 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, preservation of the original antebellum portion of the residence and any remaining historically intact farm buildings should be considered by the County as an addition to the Catharpin Greenway park.

• Public Open Space/Parks

- <u>Catharpin Greenway</u> provide an extension of the County's planned Catharpin Greenway linear natural habitat park and multi-use (biking, hiking and equestrian) trail network, from the western perimeter of the Corridor at Heritage Hunt, following Little Bull Run to the eastern perimeter of the Corridor, connecting (underneath the Pageland Lane bridge) to a new north-south major trail connection along Pageland Lane and to the lands owned by the Civil War Battlefield Trust. See <u>Exhibits</u> A and C.
- <u>Encourage an "adopt-a-trail" program</u> be established by data center owners, which would provide a maintenance fund, clean up and advocacy for County recreational trails with the Corridor.
- <u>Manassas National Battlefield Park</u> encourage the expansion of the Manassas National Battlefield Park to its current legislative boundary.
- <u>The "Settlement" Community and Thornton School</u> establish a community level park to highlight this minority community's history.
- <u>State Forest Expansion and the Unfinished Railroad Trailhead and Orienteering Park</u> (Freedom Park) – establish local park facilities and an enlargement of Conway-Robinson State Forest at the southern entrance to the Corridor, as shown on <u>Exhibit</u> A. Encourage tree preservation and active forest management as a unifying feature of this area.

• <u>Protect the Environment</u>

- <u>Protected Open Spaces</u> prioritize the establishment of a substantial amount of public and private 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); as generally shown on <u>Exhibit</u> A (Protected Open Space).
- <u>Prioritize the restoration of Environmental Resource ("ER") and riparian forested areas</u> <u>during development within protected open space areas</u>, such as those disrupted or impaired by the establishment of three nearby large golf course communities that

outfall to Little Bull Run, as shown conceptually on <u>Exhibit</u> E. Development should utilize or coordinate with County or State reforestation programs wherever practical.

- <u>Primary RPA, Floodplain, Creeks, Streams</u> make a priority the perimeter buffering of existing RPAs and flood plains of Little Bull Run, Lick Branch and Catharpin Creek, beyond what current Ordinance standards require.
- <u>Native Plantings along Roadways</u> where appropriate, utilize, to the extent possible, native plant species in landscaping along Pageland Lane, Sudley Road and Route 29 to create a natural streetscape and reduce adverse environmental impacts of roadway improvements.
- <u>Maintain and protect wildlife corridors</u> along the portions of Little Bull Run, Catharpin Creek and Lick Branch that are within the Corridor. The Little Bull Run wildlife corridor should extend under a new Pageland Lane bridge.
- <u>Virginia Conservation Easement Act</u> utilize qualified third-party Virginia Conservation Easement Act conservation easements to permanently protect public and private natural open space areas.
- <u>Minimize stormwater runoff</u> use 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, rain gardens and riparian forest restoration and afforestation. Low Impact Development, BMPs and other measures which significantly reduce pre-development agricultural and residential phosphorous off-site pollutant loads are encouraged.
- <u>Minimize land erosion and siltation during construction</u> provide enhanced erosion control measures beyond what current standards require (in areas close to environmentally sensitive areas).
- <u>Energy Efficiency</u> encourage data center buildings to meet energy efficiency design and operation standards, such as the Design PUE (Power Utilization Effectiveness) or Green Globes. Individual data center buildings are encouraged to attain LEED-Core and Shell or other, similar program certifications related to building design and construction techniques.
- <u>Provide electric vehicle ("EV") charging stations</u> in data center employee parking areas to encourage EV use.
- <u>DCSM requirements</u> 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.
- <u>Natural Open Space</u> wherever it is possible and practical, encourage the preservation of existing forest cover and other natural resources where they exist and the restoration of forest cover or afforestation where it does not exist.
- <u>Protect the local aquifer</u> in order to reduce impact to the aquifer, new development should remove or abandon existing wells and septic systems, per Health Department requirements.
- <u>Stream Monitoring</u> new long-term stream monitoring sites along Little Bull Run and Licks Branch should be established by the County in consultation with third party Conservation Easement holders and the Occoquan Watershed Monitoring Laboratory ("OWML").
- Water and Sewer
- The Corridor will be served by public water and sewer, as generally shown on <u>Exhibit</u> D (Water and Sewer Infrastructure):
 - 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.
 - 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.
 - To reduce public water and sewer consumption, the use of closed-loop, aircooled or other hybrid cooling systems that minimize water consumption are strongly encouraged. If refrigerant or water is used for cooling in radiator type systems, it should be maintained in a separated, sealed line and only opened for a controlled recycling process.

• Community Design

- <u>Encourage unified design and planting guidelines</u> for indigenous landscaping, reforestation, signage and architectural standards for those portions of data center sites visible from Pageland Lane. These guidelines should recognize, complement and reflect the nearby historic and natural resources in a manner which creates a unique *sense of place*.
- <u>Building façades facing Manassas National Battlefield Park</u> should be non-reflective and earth tone, 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 or parapets facing Manassas National Battlefield Park in order to better blend into the horizon.
- <u>Screening</u> 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.
- <u>Architectural treatments</u> 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.
- <u>Building roofs</u> should be non-reflective and a color that will help the roof to blend into the horizon or landscape.
- <u>Lighting</u> strict conformance with outdoor lighting standards, especially the use of "full cut-off fixtures" for all parking lot and building mounted lighting, is encouraged.

EXHIBITS

- A. Protected Open Space
- B. Proposed Long-Range Land Use
- C. Mobility Network
- D. Water and Sewer Infrastructure
- E. Tree Canopy Preservation and Afforestation

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Prince William Digital Gateway Special Planning Area Corridor Plan 5/16/2022

Purpose and Vision

This addition of land to be reserved for Targeted Industry employment use in the Gainesville Regional Activity Center (through an extension of the I-66/Route 29 Activity Center) is primarily an economic development initiative that will enable the County to both sustain a 35% sustainable, diversified commercial tax base as well as enhance the overall local economy. Allocating additional land for new data centers is critical to ensure future economic growth and financial health for Prince William. This will allow the County to compete on a national and regional basis for new high-tech investment, jobs and facilities. Being viewed as a "high-tech County" will not only enhance the local economy and create jobs, it will benefit George Mason University, Northern Virginia Community College and the *Science and Technology Employment Center @ Innovation*.

The Corridor is uniquely suitable for Data Centers. Sites located within one mile of existing high-voltage electric transmission and fiber optic corridors are considered optimal for data centers, because less new infrastructure is needed. The Corridor has large undeveloped parcels with great potential redevelopment to clustered data center campuses, building upon the other nearby data center campuses within the adjacent I-66/Route 29 Activity Center. Data centers, compared to other types of commercial uses, result in fewer vehicle trips, lower lighting levels and less outdoor noise.

Reserving the Corridor for data center use will take pressure off commercially-zoned properties elsewhere, encouraging their use by other important Targeted Industry employment uses – such as life sciences industry, bio-medical research, industrial flex, industrial and specialized logistics/supply chain facilities. This diminishes the chance of a "data center only" economy. Allowing data centers here will also relieve the pressure for data centers elsewhere in less suitable locations.

This Corridor Plan is intended to create a more balanced mix of employment, retail and residential uses in the overall Gainesville Regional Activity Center, in a manner which emphasizes the preservation of abundant natural open space, the establishment of new public outdoor recreation areas, and the context-sensitive siting of data centers at a transitional overall gross land area intensity of not more than 0.30 FAR. Substantial contiguous acreage available for redevelopment, a close proximity to Dominion Virginia Power's high voltage major transmission corridor, and on-site multiple fiber optic availability combine to provide a unique opportunity to achieve long-term County objectives related to economic development and the Strategic Plan , while protecting, preserving, and enhancing the natural ecosystem. This Corridor Plan seeks to shape a new *high-tech* identity for Prince William and to establish a unique *sense of place* in Gainesville, one which harmonizes the importance of both nature and technology.

Without this plan guidance and its associated implementation, many of the environmental and cultural resources within the Corridor will continue to degrade over time. It is unlikely the current development pattern will continue.

Implementation of the Corridor Plan recommendations will establish an interconnected hierarchy of greenway parks, local history-oriented community parks, multi-use trails, trail head parking areas, and private open space, which is intended to 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 and the Manassas National Battlefield Park. New public parks will connect and highlight a variety of cultural and natural resources that are protected, researched, interpreted and opened to the public. An extensive multi-use public trail network (accommodating bicycle, pedestrian, orienteering, and equestrian uses) will connect and provide access to new cultural and natural resource parks, generally as shown on <u>Exhibits</u> A (Protected Open Space) and C (Mobility Network).

New non-public uses in the Corridor shall be limited to data centers, at a maximum overall gross land area intensity of 0.30 FAR for the entire Corridor. This lower transitional 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). A transition to a lower intensity of development within the Corridor is appropriate, given the close proximity of the Manassas National Battlefield Park, Conway-Robinson State Forest and three major tributaries of Bull Run. This lower intensity and the "enhanced practices" recommended herein, are intended to result in (i) lower building heights where warranted to protect important viewsheds, (ii) appropriately-sized natural area setbacks from properties abutting the perimeter of the Corridor, and (iii) the preservation of protected public and private open space in natural area corridors and on important historic interpretative sites. This protected open space includes an extension of the Catharpin Greenway Linear Park; an enlargement of the Manassas National Battlefield Park, the "Settlement" and the Thornton Schoolhouse, and an expansion of Conway-Robinson Forest.

The design of data centers in the Corridor should be context-sensitive and responsive to adjacent uses and activities. Building heights for individual data centers should be established based on the site's existing and/or proposed topography and vegetation (informed by detailed viewshed studies performed with each site-specific zoning review). Screening techniques such as berming, afforestation and preservation of existing tree canopies 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). Where appropriate, height suitability to protect specific viewsheds should be evaluated during rezoning, using LIDAR (Light Detection and Ranging) technology-assisted line-of-sight analyses, drone vertical horizon visual testing, Augmented Reality, massing digital imaging, or other similar techniques and technologies.

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 County Ordinance Standards.

Proposed rezoning applications which implement this Corridor Plan are encouraged to be creative and will be reviewed for enhanced implementation, proffers and impact mitigation strategies. A heightened emphasis on environmentally sensitive design, including the use of indigenous plants and the preservation of environmental resources is appropriate, in order to ensure that the data centers blend into their natural surroundings. Innovative ways to deploy energy and water saving technologies is encouraged.

Long-Range Land Use

The Long-Range Land Use Map implements a unique purpose and vision for the 2,133 acre Prince William Digital Gateway Special Planning Area. See <u>Exhibit</u> B (Proposed LRLU Map). The Environmental Resource ("ER") designated area is extended along one stream RPA. The ER designation will be instrumental in establishing, through conditional rezoning, specific public and private protected natural open spaces. Most of the land within the Corridor (approximately 2,000 acres) is planned Technology/Flex ("TF"), with low intensity levels that are commensurate with the integration of natural and cultural resources. Approximately 43 acres remain planned Agricultural Estate (AE) and approximately 90 acres is planned Parks and Open Space (POS), to establish a new local park (Freedom Park, shown on <u>Exhibit</u> A) and to recognize state, local and private efforts to expand Conway Robinson State Forest.

New non-public uses within the Corridor will be limited to data centers, at a maximum overall gross land area intensity of no more than 0.30 FAR for the entire Corridor. This includes a limitation of secondary office use to ten percent of overall building floor area. Stand-alone office uses are prohibited, although office uses supportive of and accessory or secondary to data centers are permitted when located within a data center building. Transects T-3 and T-2 are intended to shape the transition of intensities within the Corridor to be compatible with nearby natural and cultural resources. The specific location, size and boundaries of public parks and private open space will be determined during the site-specific conditional zoning process. However, the location, scope and extent of parks, trails and open spaces that are determined at rezoning should be in substantial conformance with Exhibits A (Protected Open Space) and C (Mobility Network). If implemented generally as shown on Exhibit A, this Plan will result in at least 35 percent of the gross land area within the Corridor being Open Space.

Key Policies and Recommendations

• <u>Mobility Connections</u>

<u>Upgrade Pageland Lane within the Corridor</u> to a MA-1 (128 ft. ROW) 4 lane cross section, intersecting Sudley Road in a manner which will enhance safe 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 local collector roads. See Exhibit C (Mobility Network).

- <u>Prohibit Commercial Truck Traffic</u> consideration should be given to prohibiting through commercial truck traffic on that portion of Sudley Road between Gum Springs 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 prohibited within the Manassas National Battlefield Park on Groveton Road and Featherbed Lane.
- <u>Enhance Multimodal Connectivity</u> enhance cultural and environmental assets through the creation of a linear park and multi-purpose trail network, providing connections between and greater access to: Conway-Robinson State Forest, the Manassas National Battlefield Park, the Catharpin Greenway and Catharpin Park. (<u>Exhibits</u> A and C.)
- <u>Major Shared Use Path</u> establish a 10-foot wide-shared Use Path as a major northsouth trail connection from Catharpin Park on Sudley Road to Route 29 (within the east side of the Pageland Lane Right of Way) in order to provide new non-motorized transportation options. (See <u>Exhibit</u> C.)
- <u>Connections to MNBP</u> enhance the convenience and number of pedestrian and equestrian connections to the Manassas National Battlefield Park in coordination with the National Park Service.
- <u>Trail Improvements and Safety</u> 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.
- <u>Uniform Resource Locator</u> provide or facilitate the installation of information codes, such as Uniform Resource Locator (URL) addresses or Quick Response codes (QR), so that information on recreational and active mobility trails can be translated into any language with a smart phone.
- <u>Multi-Modal Options</u> create a variety of accessible recreational trail experiences (bicycle, equestrian, nature trails, orienteering, etc.) for a diverse mix of populations (i.e., various age groups, level of mobility, etc.) in a manner that creates new community amenities.
- <u>Expand equestrian and bicycle trail opportunities</u> include the development of trailhead parking areas to improve bicycle and equestrian trail use/access. A preferred location for trailhead parking is to expand the proposed Unfinished Railroad Park southward, to encompass some of the land between Conway-Robinson Forest and Pageland Lane, labeled Freedom Park on <u>Exhibit</u> A.

<u>Cultural Resources/Preserving Local and National History</u>

O <u>Detailed Viewshed Analyses</u> – use detailed topographic analyses, LIDAR-assisted line of sight analyses, digital imaging, drone visual horizon tests, Augmented Reality, massing imaging or other techniques and technologies during zoning review to evaluate potential impacts of data center buildings on important interpretive and trail viewsheds from within the Manassas National Battlefield Park. A variety of means to mitigate viewshed impacts should be considered, including but not limited to: proffered maximum elevations above mean sea level for data center buildings (including rooftop equipment, screens and parapets) and parking lot lighting fixtures; berming; and

afforestation/reforestation/vegetation screens. Berms visible from the National Battlefield Park should be contoured in a natural form that does not require mowing and contains an organic arrangement of native plants.

- <u>Acknowledgment of historic significance</u> historical markers and interpretive kiosks should be used to highlight local history, such as the "Settlement" minority community, the Thornton School, the Pageland II farmhouse (c. 1865), the Honeywood Homestead and historic cemeteries.
- Cultural Resource Inventories should be performed prior to the commencement of development and donated to the County.
- <u>Add the Manassas National Battlefield Park legislative boundary</u> to the Long-Range Land Use plan map.
- <u>Honeywood Homestead</u> (c. 1830) 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, preservation of the original antebellum portion of the residence and any remaining historically intact farm buildings should be considered by the County as an addition to the Catharpin Greenway park.

• Public Open Space/Parks

- <u>Catharpin Greenway</u> provide an extension of the County's planned Catharpin Greenway linear natural habitat park and multi-use (biking, hiking and equestrian) trail network, from the western perimeter of the Corridor at Heritage Hunt, following Little Bull Run to the eastern perimeter of the Corridor, connecting (underneath the Pageland Lane bridge) to a new north-south major trail connection along Pageland Lane and to the lands owned by the Civil War Battlefield Trust. See <u>Exhibits</u> A and C.
- <u>Encourage an "adopt-a-trail" program</u> be established by data center owners, which would provide a maintenance fund, clean up and advocacy for County recreational trails with the Corridor.
- <u>Manassas National Battlefield Park</u> encourage the expansion of the Manassas National Battlefield Park to its current legislative boundary.
- <u>The "Settlement" Community and Thornton School</u> establish a community level park to highlight this minority community's history.
- <u>State Forest Expansion and the Unfinished Railroad Trailhead and Orienteering Park</u> (Freedom Park) – establish local park facilities and an enlargement of Conway-Robinson State Forest at the southern entrance to the Corridor, as shown on <u>Exhibit</u> A. Encourage tree preservation and active forest management as a unifying feature of this area.

• <u>Protect the Environment</u>

- <u>Protected Open Spaces</u> prioritize the establishment of a substantial amount of public and private 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); as generally shown on <u>Exhibit</u> A (Protected Open Space).
- <u>Prioritize the restoration of Environmental Resource ("ER") and riparian forested areas</u> <u>during development within protected open space areas</u>, such as those disrupted or impaired by the establishment of three nearby large golf course communities that

outfall to Little Bull Run, as shown conceptually on <u>Exhibit</u> E. Development should utilize or coordinate with County or State reforestation programs wherever practical.

- <u>Primary RPA, Floodplain, Creeks, Streams</u> make a priority the perimeter buffering of existing RPAs and flood plains of Little Bull Run, Lick Branch and Catharpin Creek, beyond what current Ordinance standards require.
- <u>Native Plantings along Roadways</u> where appropriate, utilize, to the extent possible, native plant species in landscaping along Pageland Lane, Sudley Road and Route 29 to create a natural streetscape and reduce adverse environmental impacts of roadway improvements.
- <u>Maintain and protect wildlife corridors</u> along the portions of Little Bull Run, Catharpin Creek and Lick Branch that are within the Corridor. The Little Bull Run wildlife corridor should extend under a new Pageland Lane bridge.
- <u>Virginia Conservation Easement Act</u> utilize qualified third-party Virginia Conservation Easement Act conservation easements to permanently protect public and private natural open space areas.
- <u>Minimize stormwater runoff</u> use 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, rain gardens and riparian forest restoration and afforestation. Low Impact Development, BMPs and other measures which significantly reduce pre-development agricultural and residential phosphorous off-site pollutant loads are encouraged.
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- <u>Stream Monitoring</u> new long-term stream monitoring sites along Little Bull Run and Licks Branch should be established by the County in consultation with third party Conservation Easement holders and the Occoquan Watershed Monitoring Laboratory ("OWML").
- Water and Sewer

- The Corridor will be served by public water and sewer, as generally shown on <u>Exhibit</u> D (Water and Sewer Infrastructure):
 - 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.
 - 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.
 - To reduce public water and sewer consumption, the use of closed-loop, aircooled or other hybrid cooling systems that minimize water consumption are strongly encouraged. If refrigerant or water is used for cooling in radiator type systems, it should be maintained in a separated, sealed line and only opened for a controlled recycling process.

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- <u>Architectural treatments</u> 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.
- <u>Building roofs</u> should be non-reflective and a color that will help the roof to blend into the horizon or landscape.
- <u>Lighting</u> strict conformance with outdoor lighting standards, especially the use of "full cut-off fixtures" for all parking lot and building mounted lighting, is encouraged.

EXHIBITS

- A. Protected Open Space
- B. Proposed Long-Range Land Use
- C. Mobility Network
- D. Water and Sewer Infrastructure
- E. Tree Canopy Preservation and Afforestation

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200 S. PEYTON STREET ALEXANDRIA, VA 22314 703.549.7784 WWW.LANDDESIGN.COM

> PROTECTED OPEN SPACE

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ORIGINAL SHEET SIZE: 24" X 36"









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ORIGINAL SHEET SIZE: 24" X 36"



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AREA LABEL	VIEW POINT	ELEVATION
	BRAWNER HOUSE - CEDAR TREE	324 FEET
2	BRAWNER HOUSE - ARTILLERY LINE/UNFINISHED RAILROAD	325 FEET
3	BRAWNER HOUSE - ARTILLERY LINE	327 FEET
4	BRAWNER HOUSE - ENTRANCE DRIVE	309 FEET









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	BRAWNER HOUSE - CEDAR TREE	324 FEET
2	BRAWNER HOUSE - ARTILLERY LINE/UNFINISHED RAILROAD	325 FEET
3	BRAWNER HOUSE - ARTILLERY LINE	327 FEET
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AREA LABEL	VIEW POINT	ELEVATION
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VISUAL IMPACT STUDY - BRAWNER HOUSE - ARTILLERY LINE PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES

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Viewshed from Brawner House -Artillery Line



VISUAL IMPACT STUDY - BRAWNER HOUSE - ARTILLERY LINE

PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES









PHOTO TAKEN 3/29/2022

Viewshed from Brawner House -Artillery Line



VISUAL IMPACT STUDY - BRAWNER HOUSE - ARTILLERY LINE

PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES









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Viewshed from Boundary Tree



VISUAL IMPACT STUDY - BOUNDARY TREE SITE PWC DIGITAL GATEWAY

VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES



PHOTO TAKEN 3/29/2022

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Viewshed from **Boundary Tree**



VISUAL IMPACT STUDY - BOUNDARY TREE SITE PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES









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VIEW POINT	ELEVATION
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VISUAL IMPACT STUDY - BRAWNER HOUSE - ENTRANCE DRIVE PWC DIGITAL GATEWAY VISUAL IMPACT STUDY | PN 2022051 | 05.02.2022 | QTS: QUALITY TECHNOLOGY SERVICES





VISUAL IMPACT STUDY - BRAWNER HOUSE - ENTRANCE DRIVE

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PHOTO TAKEN 4/25/2022



VISUAL IMPACT STUDY - BRAWNER HOUSE - ENTRANCE DRIVE

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Viewshed from Brawner House



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PROPOSED DATA CENTER BLDGS (BEHIND EXISTING TREES) HT: APPROX 50' FROM VANTAGE POINT







P:\Projects\20143\00300\EXHIBITS\111598 National Park Sightlines\SIGHTLINE SURFACE.dwg, 4/29/2022 1:14:42 PM, DWG To PDF.pc3

AREA LABEL	VIEW POINT	ELEVATION
	BRAWNER HOUSE - CEDAR TREE	324 FEET
2	BRAWNER HOUSE - ARTILLERY LINE/UNFINISHED RAILROAD	325 FEET
3	BRAWNER HOUSE - ARTILLERY LINE	327 FEET
4	BRAWNER HOUSE - ENTRANCE DRIVE	309 FEET



4 N E N C 1 DD PV

Е E V Α Т O N PROJECT No.: 20143.003.00 DRAWING No.: 111598 DATE: 04/28/2022 SCALE: SEE SHEET DESIGN: GB DRAWN: GB 200 CHECKED: SHEET TITLE: SIGHTLINE EXHIBIT 100 50 GRAPHIC SCALE 1" = 100' SHEET No. 20



Consultants 9301 innovation dr p 703.393. suite 150 manassas, va 20110 engineering • surveying • land planning	PV DIGITAL GATEWAY GAINESVILLE MAGISTERIAL DISTRICT, PRINCE WILLIAM COUNTY, VIRGINIA	TNO:: 20143.003.00 GNO:: 111430 03/20/2022 SEE SHEET GB GB: D: TITLE: GBHTLINE
adactorha		PROJECT DRAWING DATE: 0 SCALE: SI DESIGN: DRAWN: CHECKED SHEET TIT
ELEVATION 324 FEET 325 FEET 327 FEET 309 FEET		
V POINT E - CEDAR TREE E - ARTILLERY O RAILROAD E - ARTILLERY LINE E - ENTRANCE		E L V A T I O N
VIEW BRAWNER HOUSE LINE/UNFINISHED BRAWNER HOUSE DRIVE		460 440 420 400 380 360 340 320 300 280 260 240 400
A LABEL 1 2 3 4		24

GRAPHIC SCALE 1" = 75' This plan is preliminary in nature and is subject to change based on site surveying and final site engineering.

SHEET No 21

EXHIBIT