



MEMORANDUM

Date: Friday, January 29, 2021

To: James David – Deputy Director, Dept. of Planning & Zoning, Loudoun County, VA

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Subject: Subtask 4.2, *Planned Unit Developments*

This memorandum provides a best practices assessment as it relates to Subtask 4.2, *Planned Unit Developments* of Task 4, *Best Management Practices Research*, for our work on the Planning and Zoning Services contract with Loudoun County, VA. The memorandum starts with an introduction to Planned Unit Developments (PUDs), how the tool has been used in the State of Virginia, how the tool is currently used in Loudoun County, and the advantages and disadvantages of the use of the concept. The remainder of the memorandum then discusses zoning ordinance approaches that provide alternatives to the use of PUDs and the advantages and disadvantages of each alternative, improvements to the PUD process, and finishes with conclusions and recommendations. The three primary alternatives to PUDs which are discussed are:

- Development Type Options
- Form-Based Code
- Hybrid Zoning

The examples discussed in this memorandum are provided as options and ideas for Loudoun County to consider and use to derive context-specific approaches to alternatives to the use of PUDs as well as to improve the existing PUD process as part of the Zoning Ordinance Rewrite. The memorandum is designed to help Loudoun County evaluate its options prior to making final decisions about what course of action is decided upon.

Planned Unit Developments

Introduction

A Planned Unit Development (PUD) is typically a development and a regulatory process. Definitions vary, but the purpose of a PUD is generally to allow development flexibility beyond the standard zoning code requirements. The intent of PUDs is to encourage unified plans that provide a more holistic and innovative package over conventional development. The Code of Virginia, § 15.2-2201, defines PUDs as:

“a form of development characterized by unified site design for a variety of housing types and densities, clustering of buildings, common open space, and a mix of building types and land uses in which project planning and density calculation are performed for the entire development rather than on an individual lot basis.”

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The Virginia statute maintains flexibility so that local jurisdictions can craft ordinances that meet the specific needs of their communities. Under the current zoning ordinance, Loudoun County uses the term Planned Development (PD) to refer to what Virginia state law designates as a PUD. The Revised 1993 Loudoun County Zoning Ordinance (Zoning Ordinance) contains regulations for 19 different PD districts. In many respects, the PD districts act as base zoning districts with varying degrees of development standards. Some districts, such as the PD-TRC (Planned Development-Transit Related Center) district, include very prescriptive requirements intended to achieve a well-designed pedestrian-oriented development around a transit station. Other PD districts, such as PD-IP (Planned Development – Industrial Park) include only a use list, lot and building standards, and general development requirements. Others, namely the PD-H (Planned Development-Housing) districts, serve only as organizing districts by regulating average residential density and including land bays administered pursuant to residential and/or certain non-residential base zoning districts.

Each PD district in Loudoun County is the product of a legislative rezoning and has associated proffer commitments and an approved concept development plan (CPD). During the legislative rezoning process, applicants are permitted to modify the PD district standards, as well as other development standards in the Zoning Ordinance, such as parking requirements, upon meeting certain criteria to tailor the PD district requirements to a particular project. This creates a complex system for County staff in reviewing legislative PD rezoning proposals, approving related administrative development applications, and enforcement.

The intent of the Zoning Ordinance Rewrite is to modernize the Zoning Ordinance, simplify processes, and assure development consistent with the *Loudoun County 2019 General Plan* (2019 GP). A major component of modernization and simplification is reducing the County's reliance on PUDs to regulate future development. A separate companion analysis identifies opportunities to consolidate redundant PD zoning districts. Importantly, a primary goal of the 2019 GP is to promote new development that conforms to the desired character of the Place Types included in the plan. Consolidated PD districts would be renamed (without a PD designation) and updated to implement their associated Place Types.

Reducing the number of PD districts in the Zoning Ordinance and applying them as standard base zoning districts is a critical initial step for reducing the County's reliance on the negotiated, discretionary PUD process. However, the County will continue to rely on voluntary rezoning requests for projects with greater density and intensity than that currently permitted in the Suburban Policy Areas (SPA), the Urban Policy Areas (UPA), and certain Place Types in the Transition Policy Area (TPA). Therefore, alternative approaches that can be imbedded in the updated base zoning districts to implement the Place Types are needed. These alternative approaches should include practices that are predictable for developers, as well as respond to planned community character. This memo includes alternative approaches for the County to consider as methods to decrease the dependence on PD districts during a legislative rezoning.

As we understand it, Loudoun County intends to retain a limited PUD process that could be used to achieve certain design objectives or address difficult and constrained sites. Therefore, the County seeks new and innovative approaches to improve the existing PUD process, regulations,

and application requirements through the Zoning Ordinance Rewrite process. This memo also provides recommendations for how to improve and modernize an optional PUD process.

Maintaining a PUD option in the County's zoning ordinance offers a great number of opportunities as well as challenges. Therefore, it is important to consider the various advantages and disadvantages the development tool provides. Key advantages and disadvantages concerning the use of the PUD process include:

- *Advantages:*
 - Promotes flexibility to create desirable development for both the government and its citizens that would not otherwise be permitted through conventional zoning.
 - Creates a mechanism to allow a specific set of land uses that would not otherwise be developed as part of a conventional or base zoning district.
 - Supports additional community benefits as a prerequisite for approval, including additional open space, recreational and public facilities, better form and design, infrastructure enhancements, and other specific critical needs such as affordable housing.
- *Disadvantages:*
 - Burdens local governments with the challenge to enforce, administer, and maintain zoning district regulations that can differ greatly between different developments.
 - Relies upon a negotiated, time-consuming process that costs time and money to the applicant and local government without any assurances that an agreement will ultimately occur.
 - May lead to overuse and abuse by the development community as a mechanism to exempt a development from provisions of the existing zoning ordinance that promote the interests of the local government but are not beneficial to the developer's financial goals.

Alternative Approaches to PUD Use

Despite their disadvantages, PUDs can permit innovative and exceptional design typically not permitted under more rigid Euclidean zoning practices. However, an over-reliance on PUDs (where PUDs, and not the jurisdiction's actual land use regulations, are the most frequently used approval process) typically represents inadequacies of the existing zoning ordinance. In response to these issues, many communities across the nation are updating their zoning ordinances to either eliminate or reduce the use of PUDs. As an alternative, communities are providing flexibility the development community seeks through a range of regulatory options, including development type options, form-based code (FBC), and a hybrid approach.

The first recommended alternative approach is to create development type options within base zoning districts. By providing alternative means of approval within existing zoning districts, jurisdictions minimize the development community's inclination to pursue a PUD process to achieve flexibility.

Another alternative approach is to shift to an FBC. The organizing principle for FBCs is an emphasis on a high-quality public realm defined by physical form rather than focusing on the strict separation of land uses. A key intent of the FBC approach is to reduce or eliminate the reliance on conventional PUDs by replacing them with robustly defined development standards.

Finally, the hybrid approach, which combines design- or FBCs with more conventional PUD approval processes, has become increasingly popular. Many communities have shifted to a form-based approach in their downtown commercial districts and maintained their stringent use-based approach within their residential districts.

Regardless of the approach ultimately selected, a critical component of decreasing the County's reliance on PUDs will be educating the development industry and residents on the new zoning processes. The development community may, at first, be skeptical about moving away from their current PUD provisions or processes. However, our experience working across the country has been that when developers fully understand the benefits of a process which includes administrative streamlining combined with the opportunity for enhanced densities, they become proponents of the system.

Development Type Option

The development type option avoids relying upon a discretionary review process for PUDs by including calibrated densities, percentages of open space, and other design criteria as standard options within the existing zoning district structure to achieve the intended character of a place. This alternative means of achieving development approvals creates the community's desired character, helps reduce uncertainty, improves development outcomes, and accommodates the needs of both the development community and a jurisdiction's citizenry.

The development type option is particularly effective at addressing some of the typical limitations associated with conventional residential subdivision design. The objective of the development type option is to provide flexibility yet create context-sensitive and high-quality designs through by-right development options. By allowing a context-sensitive mixing of housing types and uses and by requiring a certain level of dedicated open space, often in exchange for incentives such as increased residential density, nonresidential intensity, or less required paved area in the form of narrower roadways, the use of PUDs becomes less desirable to developers.

An advantage of the development type option is the desired development standards are embedded in the specific zoning district – in other words, facilitate what is desired as a by-right option. Ideally, the standards should reflect an explicit link between the zoning district and its intended character. If this is not achieved, reliance on incongruent standards in other parts of the ordinance may compromise the ability to achieve the desired character of a district. To avoid unintentional internal incongruities, a jurisdiction should carefully review development standards to ensure regulations are tailored to specific areas or districts within the jurisdiction. Using the tools discussed above, local governments throughout the country are moving away from approving a PUD as a new standalone zoning district and instead incorporating the benefits of a PUD into their existing zoning districts through the use development type options.

Adherence to the standards of a development type option is reviewed and approved administratively. It is used frequently in suburban and agricultural environments, particularly for conservation subdivision or village development. Most importantly, a development type option is an especially useful tool when aligned with desired outcomes adopted in the comprehensive plan, such as conserving sensitive lands, encouraging urban infill on small sites, or other means to advance community desires.

Ordinances that integrate development type options within individual zoning districts have review and approval procedures that are more streamlined because of the by-right approach. The creation of development type options, such as planned and cluster, within a local jurisdiction's existing zoning ordinance structure on a "by right" basis has increasingly developed into a practical alternative to individual PUDs. A typical reason developers request a PUD process is because they believe they cannot achieve their development concept through the jurisdiction's existing zoning ordinance. Revising regulations to incorporate these valid developer concerns is a better option than continuing to approve individual PUDs. Development type options embedded into a zoning ordinance reduces the regulatory burden on applicants, encourages greater use of more innovative design techniques, and reduces the review time for staff. With this approach, the County may want to consider adding procedural components into its ordinances that would typically be found in a PUD.

The following jurisdictions provide examples of applying the development type option as an alternative to PUDs:

Sioux City, IA: By updating zoning districts and standards to reflect desired outcomes, Sioux City, Iowa reduced their reliance on PUDs and uncertain negotiated processes. In their zoning ordinance update, the focus shifted to an objective administration of standards that are either met or not. A key feature in the new development type options is the creation of by-right options within existing zoning districts that are aligned with performance-based standards.

Sioux City combined several rural residential zones into one Rural Residential (RR) district with the following development type options: standard, cluster, and planned. New neighborhoods developing under the cluster and planned options are required to provide additional minimum open space, apply lot averaging (also optional for the standard development type), a variety of housing types (two in cluster and three in planned), as well as other site design features. In return each development type is allowed a relative increase in gross density. To achieve these increased densities, lot sizes are decreased, and minimum open space ratios are increased. Effectively, these development types provide options for preserving increased percentages of open space to protect natural resources (e.g., floodplain, wetlands, riparian areas, woodlands, drainage ways, rivers, and streams, etc.).

In Sioux City's procedures, a planned development as a development type option requires a site plan that includes necessary details excluded from the original concept plan submittal. When approved, the site plan for the planned development provides documentation for recording, which then controls future development and use within the planned development site. This process allows for flexibility in design while maintaining the desired community character.

Montgomery County, VA: The single-family base residential zoning districts in Montgomery County, Virginia includes a voluntary compact development option. Depending on the density of the district (e.g., rural, low or suburban, moderate), the purpose of the compact development option is to provide flexibility in site design to encourage natural resource preservation, pedestrian-friendly streetscapes, cost-efficiency in providing infrastructure, appropriate design solutions for unique site conditions, and/or transit-supportive design. The compact development option permits smaller lot sizes in return for providing permanent open space within the development, and a more compact, cost-effective network of streets and utilities. Certain reduced lot and building requirements are available to projects developing per the compact development option, otherwise all other provisions of the underlying district apply.

For instance, the R-3 Residential District is intended to accommodate moderate density suburban residential uses served by public water and sewer. The minimum district size is two acres, and the minimum lot size is 10,000 square feet. The compact development option allows the minimum lot size to be reduced to 5,000 square feet provided that no less than 25 percent of the gross area parent tract is preserved in permanent open space. Project design requirements include minimum buffers from water resources (that are set aside as open space); avoidance and preservation of any features of historic, cultural, or archeological value; protection of floodplains, wetlands, and slopes greater than 25 percent; and minimal alteration of natural features, natural vegetation, and topography.

The compact development option within the single-family zoning districts (R-R, R-1, R-2, and R-3) of the base district regulations is a voluntary option for the applicant. Therefore, when an applicant submits for a zoning permit, the zoning administrator may approve a site development plan and issue a permit when the plan conforms to the standards outlined in the specific zoning district. With the exception of the compact development option, modifications for lot and building requirements defined in each district's provision, all other provisions and standards of the particular base district apply.

Application in Loudoun County

Considering that the 2019 GP does not anticipate any increase in residential density in the Rural Policy Area (RPA), Joint Land Management Area (JLMA), and the majority of the Transition Policy Area (TPA), the examples of the development type option would have limited use as an alternative approach to PUDs. However, the ability to cluster residential dwelling units and achieve additional density currently exists in the AR-1 and AR-2 zoning districts and could benefit from refinement as discussed in this section.

The potential to achieve this added density is complicated slightly due to the County's reliance on the proffer system that has been used to mitigate development-related impacts. As a matter of policy and law, it is our understanding at KKC that the County will only increase residential density through owner-initiated rezoning and that any changes to the by-right development options through the Zoning Ordinance Rewrite are to remain density neutral. While this creates a complication, the addition of development options that includes what building types are permitted with specified percentages gives a property owner development options and, as such, the County will not be unilaterally granting added density through the rewrite.

In addition, the development type option could potentially be applied in the SPA. For example, it could accommodate infill development in the Suburban Neighborhood Place Type or implement the conditional application of the Suburban Compact Neighborhood Place Type as provided for in SPA Action 2.1.I of the 2019 GP. The development type options within a base zoning district that would increase residential density could be allowed upon meeting certain criteria, such as locational standards and the provision of housing that meets or exceeds the County's unmet housing needs (see SPA Policy 2.1.I. of the 2019 GP). The development type options could include methods to determine appropriate residential density and transition techniques based on adjacent development.

Advantage to Approach:

- Results in a reduction in the creation of new PUD zoning districts and therefore reduces the administrative burden on County staff.
- Creates a predictable outcome-based approach that reduces negotiation between developers and local government.
- Promotes innovative development without an unpredictable and negotiable process.
- Provides opportunity to integrate a flexible system of bonus incentives to the standards (e.g., density bonuses, flexible or reduced lot dimensional standards to incentivize open space preservation, green building, etc.)

Disadvantage to Approach:

- Requires the development community support so that developers do not feel their options are being limited. Therefore, community education that highlights the benefits of the approach to the development community is necessary to garner support.
- Raises the possibility that exceptions to the base zoning requirements may require quasi-judicial hearings (such as variances) if flexibility to consider project needs are not available through a PUD.

Advantage to Loudoun County:

- Provides the opportunity to adapt and merge existing zoning districts and promote cluster or compact development as a by-right option rather than perpetuating new standalone zoning districts.
- Provides an opportunity to achieve open space preservation and other standards while protecting unique character in the County's suburban, transition, and rural Place Types.
- Effectively accommodates the incorporation of other zoning incentives, including density bonuses, affordable housing provisions, increasing open space access, and preservation.
- Builds flexibility into lot designs by incorporating practices such as average lot sizes or average lot widths.
- Reduces the need or desire to use conventional PUDs when applied to residential development projects.

Disadvantage to Loudoun County:

- Substantial outreach to the community is necessary so that applicants understand the approach and how it can benefit their interests.
- Places reliance upon development standards in other parts of a land development ordinance that may or may not reflect place-specific outcomes.
- May limit the application of specific initiatives such as affordable housing to certain development types.
- Will have limited application in the County considering increased residential density is only planned in the SPA, UPA, and limited areas of the TPA where property owner-initiated/voluntary rezonings would occur regardless of development type options.
- Does not accommodate the County's need to rely upon rezonings to mitigate development-related impacts attributable to increased density or intensity, which is only planned in the SPA, UPA, and a small portion of TPA.

Examples:

- Sioux City, Iowa – Zoning Code, Residential Zoning, Sec. 25.03.030, *Standards for New Neighborhoods*
<http://online.encodeplus.com/regs/siouxcity-ia/doc-viewer.aspx?secid=61>
- Montgomery County, Virginia – Compact Development Option in Single-Family Residential Districts, Article II, *Base District Regulations* (Sec. 10-23, R-R Rural Residential District, Sec. 10-24, R-1 Residential District, Sec. 10-25, R-2 Residential District, and Sec. 10-26, R-3 Residential District)
https://montgomery.municipalcodeonline.com/book?type=ordinances#name=10_ARTICLE_II_BASE_DISTRICT_REGULATIONS

Form-Based Code

The practice of form-based codes (FBCs) evolved out of a desire to provide an alternative to the use-based zoning regulations and its discretionary review processes that often becomes contentious. The development of the modern practice of FBCs started through collaborations between architects, urban designers, and physical planners with a desire to strengthen the connection between building design and the public realm with specific focus on unique community character. The earliest FBCs adapted PUD processes since it was the only available tool in many communities. Building on the initial work of pioneering FBCs, such as Seaside, FL in the 1980s and more recent Columbia Pike FBCs in Arlington County (2003), FBCs have been applied at a range of scales and contexts, including city- or county-wide zoning codes. A fundamental element of their use is the embeddedness of flexibility for cities and counties where existing codes do not facilitate mixed-use, walkable areas.

A pure form-based code would not regulate land use at all. There are, however, not many examples of “pure” FBCs that are currently in use. What makes a FBC “form-based” is that it primarily regulates form throughout a jurisdiction with any land use regulations secondary in importance with the differentiation in land use typically broken into broad categories such as residential, commercial, and industrial. This form-based prioritization differs from the hybrid approach in that a hybrid code regulates different locations within a jurisdiction with different approaches. For example, there are numerous hybrid codes that regulate downtown districts

through an FBC, other commercial districts through a conventional format, and residential districts through various development type options.

An increasing number of localities have implemented FBCs as a means for limiting their reliance on PUDs and conventional zoning. Additionally, many jurisdictions have made the shift to FBCs because even high-quality and innovative development proposals may not achieve significant public benefits through the application of conventional zoning and PUDs. FBCs represent a modernized zoning approach that regulates development by focusing on scale, design, and placement of buildings. A key distinguishing element of FBCs is that they provide a shift from a text-dominant format to a more graphic-reliant format to regulate and illustrate development intent. Particular attention is given to the relationship between the street and other public spaces, particularly sidewalks. FBCs prioritize the look and configuration of buildings to define a community's character over the actual uses within the buildings.

Advantages of FBCs include prescriptive development standards that provide for certainty in the approval process while also allowing for a variety of land uses to populate the space. Development standards within FBCs are particularly good for urban areas because FBC approaches promote walkability, transit-friendly development, use diversity, and more compact settlement and development patterns. FBC approaches also align well with mixed-use projects, particularly in urban and suburban areas.

Generally, FBCs include two categories of standards that reinforce community character and result in measurable beneficial outcomes. Through public realm standards, FBCs view the street and streetscape (including sidewalk width, travel lanes, street trees, and other defining features) as fundamental design elements. A second and quintessential feature of FBCs is a set of standards that regulate the features, configurations, and functions of buildings. In this view, building form, scale, and orientation serve to shape the public realm. Additionally, many codes incorporate optional elements, such as architectural, landscaping, signage, and environmental standards, or affordable housing incentives. While some jurisdictions elect to conform to existing standards, particularly for landscaping or signage, the FBC approach could also include customized standards that help achieve the community's vision.

Using the FBC approach, significant extra time is required up-front to develop the regulating plan. Active public engagement is an essential and initial step. This typically begins with a design "charette" or a multi-day, highly interactive open public workshop in which the developer, designers, engineers, and other related professionals interact with the public to establish the vision and general policy that will serve to shape the place. A key advantage of this step in the process is the link it provides to a community's comprehensive plan. After establishing broad policy agreement, the vision is translated into a regulating or master plan with specific development standards. Following a public vetting process of the draft ordinance, the legislative bodies adopt the ordinance into law. The FBC regulating plan then becomes part of the overall municipal code, usually as a zoning amendment. The FBC regulating plan may also inform and amend other regulations, such as street specifications and subdivision requirements.

Once the regulating plan is adopted, the FBC process is administratively reviewed and allows for “by right” approval processes. Unlike conventional PUDs, which may require a discretionary approval process, the high-level specificity of FBC regulating plans reduces the amount of discretionary review required by decision-making bodies. Despite the significant extra time required up-front to create a regulating plan, an important procedural advantage FBCs provide over traditional PUDs is a smaller workload for the decision-makers over time, as more applications are routinely approved administratively.

The following jurisdictions provide examples of applying FBCs as an alternative to PUDs:

Arlington County, VA: The Arlington County, Virginia FBCs were among the early examples of modern FBCs. The Arlington County FBCs are a good example of where building form is the key element that is regulated with land use separation being secondary in importance. The goal of the Arlington County FBCs were to implement the vision as set forth in the 2002 *Columbia Pike Initiative – A Revitalization Plan* to reorient the area from a declining, suburban, auto-oriented corridor to a pedestrian-oriented destination district to serve as the community’s social and economic center. Following the plan’s adoption, Arlington County created two FBC optional development districts, the Columbia Pike Form Based Code District (Commercial Center FBC) and the Columbia Pike Neighborhoods Form Based Code District (Neighborhood FBC), to respectively implement the commercial center area plan and the multifamily residential area plan development around these commercial centers guided by the *Columbia Pike Neighborhoods Area Plan*.

The regulating plans for each FBC determine several development-based outcomes, including land use. However, what makes these plans distinctly form-based is the central focus on building form, urban design, streetscape plans, and other performance factors in a detailed, cohesive format. Both optional FBC zoning districts are regulated by FBC ordinances as appendices to the County’s zoning ordinance. The FBC ordinances intend to implement their respective area plans by offering building height bonuses as incentives when depicted on a regulating plan and deemed locationally appropriate. The FBC districts also potentially offer greater flexibility in the allowable development configuration than the development standards of the base zoning districts by prescribing additional alternative form criteria (specified height, building placement, streetscaping, parks, and civic spaces) that property owners may elect to use in place of their base zoning districts.

A key incentive for an applicant pursuing development under one of the FBCs is the streamlined approval process for proposals that meet the requirements of the regulating plan. Arlington County’s optional FBC process enables development that occurs within the Columbia Pike corridor to proceed under a predominately administrative review process (all FBC applications are still reviewed by a working advisory group). This approval process offers an optional alternative review procedure to the typical site plan review process, which in Arlington involves a special exception (e.g., legislative) review, whereby an applicant seeks to exceed the permitted density and form allowed by-right in their conventional, base zoning district. An applicant seeking these special

exceptions would be required to endure the lengthier and assumed more expensive public hearing approval process for final action.

Proposals under Arlington County's two FBCs (Commercial Centers FBC and Neighborhoods FBC) are reviewed and implemented according to the specific information for each lot as shown in the regulating plan for that district. The FBCs offer an alternative zoning tool that is incentivized through a less intensive and expensive process for the developer than the site review process for each underlying district. For example, proposals in the Commercial Center FBC that have "C" or "RA" zoning and are under 40,000 square feet allow for the Zoning Administrator to administratively approve the application. If the proposal is compliant with the adopted regulating plans and no modifications are requested, then properties may develop by-right according to the FBCs. Should the proposal exceed thresholds or request special exceptions or modifications, the FBCs will follow a Special Exception Use Permit Application process with several steps of staff review and a public review process with final approval by the County Board.

Montgomery County, VA: Through a quasi-form-based approach in their PUD-TND (Planned Unit Development - Traditional Neighborhood Development District) regulations, Montgomery County, Virginia encourages innovative site design and provides additional design flexibility. The PUD-TND district is Montgomery County's only PUD option currently administered in its zoning code. Although the County has previously adopted PUDs mapped within its jurisdiction, the PUD-TND is intended to provide a flexible and alternative zoning district for qualifying areas designated in Montgomery County's comprehensive plan. These areas include Urban Development Areas, Urban Expansion Areas, Villages, and Village Expansion Areas. The intent of the PUD-TND is to feature a mix of land uses and building types closely linked by a network of streets, sidewalks, formal and informal open spaces, and trails that create pedestrian- and transit-friendly environments, that are similar to historic small towns and neighborhoods in the region.

The PUD-TND is administered as a discretionary review under the zoning code's site plan review and rezoning process. While Loudoun County staff may find the development standards and the more prescriptive and non-negotiable zoning district provisions a good example to review, there appears to be limited specificity in the administrative procedures to consider as a model for procedural considerations.

Beaufort County, SC: Some communities, such as Beaufort County, South Carolina, have modified their approach to PUDs by opting to incorporate the flexibility and master-planned approach through the FBC alternative. An essential function of Beaufort County's recent code rewrite was to incorporate traditional neighborhood design elements into districts applied on a transect. The County defines a transect as "a cross-section of the environment showing a range of different habitats. The rural-to-urban transect of the human environment is divided into multiple transect zones that describe the physical form and character of a place according to the intensity of its land use and urbanism." For proposed development not seeking exceptions to the base transect zone, the applicant must meet the standards of that zone. Proposals that seek a comprehensive zoning amendment for larger planned developments such as subdivisions, shopping centers, or other large centers in growth areas identified in the comprehensive plan, an applicant must meet

the size and intensity thresholds designated in the Place Type Overlay (PTO) Zone standards. Depending on the context of the proposed site, the planned development must take the form of either a Rural Crossroad, Hamlet, or Village Place Type. For example, a proposed site within the T2 Rural Transect of at least 80 acres would meet the threshold of developing as a Hamlet Place Type. The PTO details standards specific to each place type in addition to referencing form-based standards in other sections of the code, such as open space, building, and street types reflective of the desired character. By doing such, Beaufort County places its focus on enhancing community benefits without compromising important design and environmental standards. Using this approach allows for a community design process with public engagement as a key component. When first adopted in 2015, the new zoning code eliminated PUDs but left the County with the option to reconsider their use at a later point. No further action has been taken to re-adopt a PUD option in Beaufort County's development code.

The County uses the regulatory specifics for each transect as the organizational framework for administering the FBC. Under this system, each transect represents the rural-to-urban transition in character divided into different zones. Each transect zone describes the physical form and character of a place based on the intensity of land use. Unlike Arlington County's approach of reviewing against a regulating plan, any development application within a specified transect must demonstrate compliance with the standards outlined in the FBC. New transect zones proposed must follow the provisions for developing community plans based on the framework and standards of the existing transects specified in the Zoning Ordinance.

The Beaufort County example demonstrates how a shift to a form-based approach still permits PUD style development, but without the lengthy discretionary review and unpredictability in processes that require public hearings. Instead, the County delegates authority to the Planning Director to approve zoning permit applications for proposals within one of the County's nine mapped transect zones. The Director reviews the proposal in combination with the standards for specific uses, if applicable, and the development standards in the Zoning Ordinance. Development applications within one of the transects are approved administratively when an application is consistent with the County's use and development standards. If, however, an application is not consistent then the streamlined administrative process is not an option and must be approved through a public hearing process.

Application in Loudoun County

The use of FBC would likely be limited in Loudoun County. As noted in the description, FBC is best applied when the form and design of a place is critical to its success. Such places in Loudoun County would include the Rural Historic Villages; the UPA, which is focused around transit stations; and redevelopment areas. Rural Historic Villages will not be subject to rezoning applications; therefore, this FBC would not be implemented as a PUD.

Implementation of FBC as an alternative to a PUD will require substantial upfront cost and investment to gain community input and would likely include a charrette process, drafting the FBC, and adoption of the regulating plan. The regulating plan would therefore become the de-facto zoning tool in which future land use decisions would be made. A key component of the regulating plan entails the identification of specific standards for each property within a defined

district. Particularly important within these specific standards is how each property relates to adjacent properties and streets.

As a precursor to the charette process, many local governments develop small area plans which provide a high-level vision for the community. When the additional investment of the small area plan occurs, the charette process is used to refine the high-level vision it into a community consensus that can be integrated into a regulatory framework. The absence of a small area plan does not preclude a jurisdiction from moving directly into a charette process. However, it does mean that a longer charette process is advised along with more upfront coordination between a consultant and staff.

Although significant resources are required upfront, the regulating plan provides several advantages including the opportunity to administratively approve development which complies with a community's comprehensive plan. Similarly, a jurisdiction, such as practiced in Arlington County, may retain a base zoning district but incentivize the PUD by providing a more streamlined approval process. Therefore, this approach should be reserved for locations where there is some assurance that the FBC will be used. Since the areas around the County's transit stations are largely entitled and building out, this approach may be too late for large scale implementation.

Use of an FBC may be useful in areas targeted for redevelopment. In this case, the County could proactively develop and adopt an FBC based on community input, site constraints, infrastructure needs or limitations, and plan policy. The FBC would be applied to the redevelopment area rather than individually designed PUDs that may not be as responsive to the community's input or existing conditions. The County could require a rezoning to apply FBC, use of the FBC could be an optional process that incentivizes redevelopment, or the FBC could become the base zoning district and any modifications to the FBC would require a legislative rezoning using a PUD process.

Advantage to Approach:

- Developed from a community vision and a local government's plans that focuses on placemaking.
- Streamlines administrative review and approvals, which helps promote certainty in the decision-making process.
- Uses graphics, diagrams, and charts to illustrate outcome-specific standards that reflect desired context-sensitive character.
- Promotes walkability, transit-friendly development, use diversity, and more compact settlement and development patterns.
- Growing in popularity in many communities across Virginia, the region, and nationally.
- Garnishes national recognition and attracts development interest when implemented with community support.

Disadvantage to Approach:

- Requires highly trained staff with a background in architecture to effectively administer the ordinance properly.

- Confines developers to prescriptive design-based outcomes not often well-understood by the development community.
- Produces extensive design standards that can be challenging to verify, especially if not expertly and clearly written.
- Limits public input in the approval process and, therefore, risks permitting a project where broad public support does not exist.
- Creates another complex regulatory process.

Advantage to Loudoun County:

- Provides outcome-specific metrics that would align with the intent of the 2019 GP and implementation of the Place Types.
- Establishes objective, measurable outcomes developed on the front-end of projects that facilitates staff administration.
- Produces outcomes that provide long-term performance and consistency for the community.
- Incentivizes a developer to create higher densities in areas outlined in the 2019 GP, including near transit stations and existing mixed-use areas in the Urban and Suburban Place Types. To achieve this higher density, the County could follow the example of Arlington County by providing an overlay or alternative zoning district administered through a regulating plan, accompanied by a streamlined approval process.
- Offers flexibility to incorporate additional incentives to achieve more affordable housing, increased access to open space, and pedestrian- and transit-friendly communities among other benefits.

Disadvantage to Loudoun County:

- Requires significant resources, time, and up-front costs to create a regulating or master plan to establish unique standards for each zone.
- No direct assurance from the development community that this investment will be highly utilized.
- Demands training or special knowledge of architectural or urban design practices to review or administer the regulating plans.

Examples:

- Arlington County, Virginia –
 - Zoning Code, Article 11. *Overlay and Form Based Code Districts:*
<https://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/38/2019/10/ACZO.pdf>
 - *Article 11.1 (Appendix A), "CP-FBC" Columbia Pike -Form Based Code Districts:*
<https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/31/2016/12/2016-FBC-Reprint-for-web.pdf>
 - *Columbia Pike Neighborhoods Special Revitalization District Form Based Code:*
https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/31/2016/12/Dec-2016-N_FBC-Update.pdf

- *Administrative Regulation 4.1.2:*
https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/31/2016/12/Admin_Regs_4_1_2_Final_2017.pdf
- Montgomery County, Virginia –
 - Sec. 10-32, *PUD-TND Planned Unit Development-Traditional Neighborhood Development District:*
https://montgomery.municipalcodeonline.com/book?type=ordinances#name=Sec_10-32_PUD-TND_Planned_Unit_Development-Traditional_Neighborhood_Development_District
- Beaufort County, South Carolina – Community Development Code
 - *Division 2.3, Traditional Community Plans, 2.3.60 Transect Zones:*
https://library.municode.com/sc/beaufort_county/codes/community_development_code?nodeId=ART2MUTSILOCOSCODE_DIV2.3TRCOPL_2.3.60TRZO
 - *Division 3.2 – Transect Zones:*
https://library.municode.com/sc/beaufort_county/codes/community_development_code?nodeId=ART3SPZO_DIV3.2TRZO
 - *Article 5 – Supplemental to Zones:*
https://library.municode.com/sc/beaufort_county/codes/community_development_code?nodeId=ART5SUZO
 - *7.2.20 – Zoning Permit:*
https://library.municode.com/sc/beaufort_county/codes/community_development_code?nodeId=ART7PR_DIV7.2APSPREPR_7.2.20ZOPE

Hybrid Zoning

Hybrid zoning is a modern zoning approach that incorporates the best practices from the various zoning approaches, including Euclidean, form-based, and performance-based to create appropriate zoning categories. Euclidean zoning strictly separates land uses while performance-based zoning prioritizes environmental protection and community character. The pure use of either Euclidean or performance-based zoning would not in of itself provide the flexibility desired by the development community to preclude the use of PUDs. However, the use of these approaches as part of a hybrid zoning code can serve as a vehicle for a jurisdiction to no longer need PUDs.

Hybrid zoning is an approach that is increasingly common in the United States as municipalities seek to update and modernize their zoning and land development regulations. Typically, hybrid zoning has a base layer similar in format to a conventional zoning approach but with additional regulations that can incorporate form-based and performance-based zoning. Rather than varying from the existing development standards, the hybrid zoning approach preserves existing development standards (e.g., signs, landscaping, etc.) while defining details such as building types and other three-dimensional elements. The usefulness of this approach depends on the balance between review certainty and design flexibility. As a context-sensitive approach, hybrid zoning applies different zoning approaches in different locations based on which approach works best for each area of a jurisdiction.

Hybrid zoning codes, much like FBCs, generally regulate standards such as building form, street frontage, and height, and recognize land use differences by applying unique controls to encourage mixed-use combinations. Unlike FBCs, hybrid codes still rely upon use districts. The use component establishes the types of land uses permitted within the district, while the building design or “form” element establishes architectural design requirements such as height limits, entryway typologies, and façade design standards. The site design component defines how the site is arranged, with standards for where buildings are placed in relation to sidewalks, where landscaping and open space are provided, and where pedestrians are expected to access the site.

In a conventional zoning code, technical standards integration, as described in the previous paragraph, is often limited. Alternatively, as described in the example below, jurisdictions such as Raleigh, North Carolina have taken the approach of combining all applicable development standards and procedures into a unified regulatory document, often called a Unified Development Code¹.

A hybrid zoning approach facilitates the creation of a modern, innovative development ordinance by aligning best practices of both processes and contemporary site development standards. However, due to the nature of compiling standards and procedures from different zoning approaches (e.g., FBC with performance-based standards), hybrid zoning ordinances can often be complex. Therefore, it is essential to ensure protection or enhancement of unique character-specific areas when defining specific standards and procedures.

In the hybrid zoning alternative, the form or design-based component of the ordinance depends upon a specific district to be rezoned and/or developed individually, much like a conventional PUD process. Jurisdictions that have adopted hybrid ordinances typically include specific development standards in the ordinance, but legislative rezoning approval is still required. Like the FBC regulating plan, a key to successful implementation of this approach is approval of an associated master development plan. Once a joint master plan/rezoning process establishes the PD District, the standards become law.

The following jurisdictions provide examples of where a hybrid approach has been used as an alternative to PUDs:

Raleigh, NC: To reduce the reliance on PUDs, the City of Raleigh, North Carolina adopted a hybrid zoning code through the adoption of their Unified Development Ordinance. The base zoning districts incorporate form-based elements that provide by-right regulations for residential and mixed-used districts. The Planned Development (PD) District regulations permit modifications to certain required development standards to promote context-sensitive site design while other standards are more rigid. This allows the City to ensure desired outcomes envisioned and adopted

¹ A “Unified Development Code” is a regulatory document which combines the zoning code, subdivision regulations, and/or technical design and water management regulations. The purpose to provide a more user-friendly code and reduce overlapping regulations. Administering zoning through a UDC is itself an innovative approach compared to a traditional PUD within a conventional zoning code, as the UDC structure enables greater integration of technical design criteria that are inherently form-based with customary zoning standards (e.g. use-related regulations).

as part of the City's comprehensive plan as well as encourage creative design for elements where a rigid standard is not critically important.

Under Raleigh's hybrid approach to allowing PD Districts (i.e., PUDs), the City permits a customized set of general modifications to existing standards. Sign standards may also be modified but follow separate requirements. PD Districts in Raleigh must achieve a mix of uses and building types, no matter the size. For example, a PD District that proposes a single structure must provide a mixed-use building type. The regulations for PD Districts proposing multiple buildings require a mixture of building types, including townhouses, apartments, and mixed-use buildings. Residential density modifications may not exceed district maximums. Each PD is required to provide at least 10 percent of the gross site area as open space.

Raleigh's PD Districts are used to modify underlying by-right hybrid zoning districts and are processed as a rezoning to a customized zoning district. The rezoning includes approval of a Planned Development Master Plan. The PD Master Plan provisions in Raleigh's zoning ordinance detail submission requirements, including existing conditions plans; proposed development plans, such as a detailed layout map and pedestrian circulation; parking and open space plans; maximum number of dwelling units by type; maximum square footage of nonresidential uses by building type; and a non-regulatory illustrative three-dimensional model showing building elevations, locations of streets, and prominent site features. Along with these components, the applicant must specify in the submission how the PD District modifies any existing standards. Any plans that include a mixed-use district must demonstrate conformity with urban design guidelines and principles included in the zoning ordinance. General design principles included in the PD District regulations are also considered for each PD proposal.

Raleigh's review process highlights how a hybrid zoning approach could serve as a way to allow, but not prioritize, PUDs. The City accomplishes this by providing flexibility to existing standards, while ensuring detailed adherence to a set of specific guidelines that includes a detailed process tailored to fit the community's vision.

Norfolk, VA: Norfolk's zoning districts are designed to implement the City's Character Districts. In Norfolk, zoning districts specify permitted uses, like a conventional base zoning district. However, the districts function as a hybrid code because the City's zoning ordinance applies FBC standards to development in a separate article of their zoning ordinance. The development standards of other sections of the code not permitted to be modified within this article include open space requirements; residential versus non-residential transition "neighborhood protection" form standards; and a set of resilience quotient standards reflecting the need to adapt to "climatic and environmental shocks" as a low-lying coastal City. Otherwise, the development standards in other sections of the ordinance can be modified, including parking and loading calculations; site development standards such as landscaping, buffering, screening, and tree protection; lighting; more specific use-determined design and form development standards for building orientation, lot configuration and façade design, roof design, minimum ground floor height, surface and garage parking location, outparcel development configuration, base, middle, and top building form, and façade articulation; and standards for accessory structures.

The *Zoning Ordinance of the City of Norfolk, 2018* (2018 Zoning Ordinance) retains as an option the ability to develop a PUD via a PD district similarly available as an option under the *Zoning Ordinance of the City of Norfolk, 1992*. The PD district under the City's 2018 Zoning Ordinance offers flexibility in the permitted uses and mix of uses, lot size, yard setbacks, maximum building height, and site circulation. However, PD's function as an alternative to the hybrid FBC by-right development is to "be used sparingly... and only where the development demonstrates innovative design and higher quality development." The PD district process allows applicants to modify many of the development standards that apply to the base zoning; applicants must rezone to the PD district to pursue PUD development and achieve any of the specified allowable modifications to the FBC development standards.

Since PD districts are intended to provide alternatives to base zoning, the proposed PUD under this rezoning-based development option is defined and illustrated by a "PD master plan" document. The PD master plan specifies information such as consistency with the City's comprehensive plan, the permitted and mix of uses, lot and building standards, circulation, utilities, stormwater management, open space requirements, parking, landscaping, development form, and signage.

The City of Norfolk also requires a "PD Terms and Conditions Document" to address impacts related to the PUD. The PD Terms and Conditions Document includes information related to "community benefits and amenities," "provisions related to environmental protection and monitoring," and the document specifies that "All conditions shall be related in both type and amount to the anticipated impacts of the proposed development on the public and surrounding lands."

Application in Loudoun County

In some ways, Loudoun County already follows a process similar to Raleigh, NC. Current zoning districts, albeit with a PD designation, implement a set of regulations that achieve the intent of a zoning district and planned land use. These districts range in regulation from simple use lists and lot and building standards to prescriptive design-based standards. A rezoning could approve the PD district as included in the Zoning Ordinance or with modifications. If modifications are requested, the approval must include demonstration of how the modification is used in the design of a project.

The new zoning ordinance could use a hybrid approach that implements base zoning districts that regulate uses as well as includes design or performance-based standards. This type of hybrid district would be particularly suited to districts implementing Place Types in the SPA and UPA. These updated districts would no longer be identified with a PD designation, will implement associated Place Types, and may be a consolidation of one or more redundant existing zoning districts. An optional PUD could still be available for a project that would benefit from modified standards. One new set of PUD regulations and requirements could apply and ensure sufficient detail and commitments for the optional development proposal.

The difference for Loudoun County from the Raleigh approach would be that a legislative rezoning process would be required for both the base hybrid zoning district and the PUD. Rezoning to the hybrid zoning district would be a straightforward process, whereas the PUD option would entail a more complicated negotiated process. Using a PUD in this manner could also retain the ability to modify all zoning districts in the SPA and UPA, which is currently allowed even if the district is not a PD district.

Advantage to Approach:

- Merges modern zoning approaches and provides a holistic approach.
- Customizes regulations through a context-sensitive design approach.
- Incorporates best practices from various zoning approaches, such as conventional, form-based, and performance-based.
- Effectively balances certainty and flexibility.

Disadvantage to Approach:

- Can be complex and multi-layered approach to zoning.
- Compromises the zoning ordinance when regulations produce overlapping standards that may be included in other chapters of the code of ordinances (e.g., subdivision regulations, sign code, etc.).

Advantage to Loudoun County:

- Modernizes and improves upon on existing tools within the existing zoning ordinance.
- Includes specific metrics that align with the intent of the 2019 GP and implementation of the Place Types.
- Helps avoid the creation of PUDs that function as mini zoning districts that are difficult to administer.
- Facilitates ease of administration and use through graphically displaying expected built expectations.
- Creates the opportunity to incorporate a diverse set of performance standards that FBCs do not often address.
- Allows varying degrees of flexibility or specificity using minimum standards as a foundation to tailor the PUD's requirements.
- Applies to a greater range of site sizes and Place Types if specified in the new PUD regulation.

Disadvantage to Loudoun County:

- Maintains a use-based approach which may be compromised if the form-based design standards do not adequately distinguish between character areas (auto-oriented districts and walkable, urban districts).
- Demands training or special knowledge of architectural and urban design practices to review or administer the regulating plans and form-based regulations.

Examples:

- Raleigh, North Carolina – Article 4.7, Planned Development (PD) District (4-13)
<https://user-2081353526.cld.bz/UnifiedDevelopmentOrdinance/107/#zoom=z/106/>

- Norfolk, Virginia, Planned Development Districts
 - *Article 2, 2.4.5, Planned Development District (Application-Specific Procedures)*
https://www.norfolkva.gov/norfolkzoningordinance/#Norfolk-ZO/2_4_Application_Specific_Procedures.htm#_Toc502655624%3FTocPath%3DArticle%25202%253A%2520Administration%7C2.4%2520Application-Specific%2520Procedures%7C_____5
 - *Article 3, 3.8.2 General Provisions for Planned Development Districts*
https://www.norfolkva.gov/norfolkzoningordinance/#Norfolk-ZO/3_8_Planned_Development_Districts.htm#_Toc502655713%3FTocPath%3DArticle%25203%253A%2520Zoning%2520Districts%7C3.8%2520Planned%2520Development%2520Districts%7C_____0

Modernized Optional PUD Process

This memorandum concludes with suggestions for ways to improve and modernize an optional PUD process in Loudoun County. Most critically, the memorandum discusses means to consolidate current zoning districts and provide development type options within base districts. This would not only create an overall reduction in the number of zoning districts and therefore reduce the administrative burdens on County staff, but also create a more predictable outcome-based approach that reduces negotiation between developers and the County. It will be important for the County to educate the development community about how the new framework is of benefit to developers. Additionally, we advise the County to develop a system during the Zoning Ordinance Rewrite process to receive developer feedback effectively and efficiently while ensuring the new process and resulting land development regulations do not limit developer options.

Currently, the County has one PUD process for the 12 different Planned Development (PD) Districts as defined in Section 6-1500 of the *Revised 1993 Zoning Ordinance*. A single process serves as a good foundation to modernize the PUD process in line with industry-standard approaches such as presented in this memorandum and that further the goals and objectives set forth in the 2019 GP. The following are recommendations for consideration in the upcoming Zoning Ordinance Rewrite:

1. **Establishment of a PUD Process.** PUDs should serve to allow more flexible and innovative variation from the existing base standards. A key focus of the Zoning Ordinance Rewrite should consider how the new PUD approach is reserved for larger, complex, or multi-phased projects. At the same time, the Zoning Ordinance Rewrite should address unique design challenges or propose new development concepts beyond what is currently permitted in the base zoning districts to reduce the use of PUDs.
2. **Purpose Statement.** Expand the purpose statement for the PUD optional district to more broadly address emerging challenges and opportunities, including adaptation to changing climatic events, transportation demands, telecommunication technologies, etc.
3. **Ensure a Mix of Uses.** A PUD process should ensure a mix of uses, building or housing types, or access to employment opportunities above what an existing zoning district permits as a by-right development type option.

4. **Create Base Standards or Principles.** In addition to ensuring optimal development standards within base zoning districts, the PUD optional zoning district should outline a list of standards or design principles a PUD master plan or concept plan would achieve at full development. Such standards, at a minimum, should address performance outcomes that make use of urban design approaches that implement the vision established in the 2019 GP (environmental protection, open space preservation, housing affordability, connectivity, sustainability, etc.). A standard practice, such as applied by Norfolk, VA, specifies procedures for the application, development standards to be defined in the master plan application, and the development standards in the zoning ordinance that may not be modified.
5. **Phased Development.** The provisions must explicitly state how the development can be phased in a manner which may be accommodated by the timely provision of public utilities, facilities, and services.