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MEMORANDUM

TO: Town of Tolland, CT – Planning and Zoning Commission
FROM: Nathan Kelly, AICP
DATE: September 15, 2016
RE: Discussion of Residential Density and Mixed Use within the Tolland Village Area District

Introduction

The Horsley Witten Group, Inc. (HW) was retained by the Town of Tolland, CT (Town) to examine planning issues related to the Tolland Village Area (TVA) zone and provide findings to the Planning and Zoning Commission (Commission). Specifically, HW was asked to provide options related to determining appropriate residential density within the TVA as well as a viable ratio of residential to commercial use that supports the vision of this mixed-use zone. Before examining these issues, HW staff members oriented themselves to the current conditions and issues surrounding the discussion. HW staff visited the Town and toured the area, viewing those portions of the area that are either public owned or, where privately owned, visible from a public way.

The Town is currently in active discussion with a private developer interested in pursuing a project within the Tolland Village Area (TVA) district. As the details of this project continue to evolve, HW has maintained communication with Town staff in order to stay abreast of the latest changes. However, HW's charge has remained narrowly focused on the two issues listed above, findings for which are the subject of this memorandum.

Existing TVA Zoning

In order to better understand the context for our assignment, HW reviewed the current zoning regulations and associated documents. Generally speaking, the TVA is viewed by the community as a gateway to Tolland's historic town center. The development vision for this zone is intended to create and protect development patterns that are compact and walkable and include a mix of uses, and to ensure that development enhances the economic base of the Town and quality of life for its residents. All buildings in the zone must follow the TVA Design Guidelines and are subject to review by the Design Advisory Board.

The TVA is split into three use areas where the following uses are allowed and encouraged:

- Mixed Use Areas
- Residential Areas
- Open Space Areas

[Summary of Site Requirements](#)

A set of site design requirements applies to the TVA as follows:

Open Space: Any residential or mixed-use development must include open space.

Buffers: Areas next to existing residential homes must include an area of plants and trees to serve as a visual buffer.

Connectivity: Sidewalks, pathways, roads, driveways, and parking lots should connect with one another inside the development and with its neighbors. Cul-de-sacs and multiple driveways are discouraged.

Parking: The Commission has the discretion to reduce the amount of parking and loading otherwise required by the Zoning Regulations.

Stormwater: Stormwater management is required to comply with the Town's Low Impact Design Manual, which has a special section for the TVA. Important elements of the overall manual include:

- Environmental Site Design: Includes guidance on minimizing impacts to wetlands and water courses, and minimizing disturbance of steep slopes and buffer areas.
- Water Recharge Volume: Sets requirements for maintaining recharge rates between pre- and post-development conditions based on the extent of impervious cover and the types of soils that are present in different areas.
- Water Quality Volume and Pollutant Removal: Provides a standard for treating the first inch of stormwater runoff to specific pollutant removal levels as listed below:

Pollutant Type	Minimum Pollutant Removal Rate*
Total Suspended Solids	90%
Total Nitrogen	40%
Total Phosphorous	65%
Zinc	85%
Total Petroleum Hydrocarbons	80%
Dissolved Inorganic Nitrogen	40%

*Can vary slightly from one area of the TVA to another.

Note on Stormwater Standards:

It is important to note that the stormwater standards, particularly the minimum pollutant removal rates listed in the table above, are aggressive. While it is certainly not impossible to achieve these results, (and the Town has clearly articulated its reasons for setting these standards), a developer may face challenges in doing so. Depending on the condition of subsurface soils (i.e., the ability to filter recharge), surface pre-treatments may be required that, in turn, could consume a significant amount of land. HW raises this issue to prepare the reader for a discussion of indirect regulation of residential density, which is addressed later in this memorandum.

Summary of Standards for Buildings

The location and size of buildings in the TVA must be consistent with the following standards:

MIXED USE AND COMMERCIAL BUILDINGS			
Setbacks:	No more than 10 ft from the public way, though the Commission may allow greater setbacks to accommodate Open Space		
Building Height, By Right:	Minimum – 1.5 stories Maximum – 3 stories Preferred – 2.5 stories		
Building Height, with Conditions:	Maximum 4 stories or 56 ft, whichever is shorter	Conditions <ul style="list-style-type: none"> • If the site has steep grades, buildings can be built into the slopes to minimize the visual impact of building height. • At least 150 ft setback from Merrow Rd • Minimal visible height impact from Merrow Rd • Designed to minimize the visual impact of the increased height 	
Hotel Height, with Conditions	Maximum 4 stories or 55 ft, whichever is shorter	Conditions <ul style="list-style-type: none"> • At least 150 ft setback from Merrow Rd • Minimal visible height impact from Merrow Rd • Designed to minimize the visual impact of the increased height • Building has a vegetated or pitched roof • Visual impact of parking areas minimized 	
Building Width (exc. hotels):	Maximum 240 ft	Greater than 75 ft Provide variation in the building design, per the Design Guidelines	Greater than 200 ft Have at least one step back of at least 6 ft, so that no flat front of the building is longer than 120 ft
RESIDENTIAL BUILDINGS (SINGLE-FAMILY, TWO-FAMILY, AND TOWNHOUSES)			
Setbacks:	Minimum – 10 ft Maximum – 25 ft		
Garages:	For single and two-family houses, garages should be behind the house, or set back at least 15 ft from the front of the house.		
RESIDENTIAL BUILDINGS (MULTI-FAMILY)			
Setbacks:	Minimum 25 ft		
Building Height, By Right:	Maximum 35 ft or 40 ft to ridge, whichever is shorter		
Building Height, with Conditions:	Maximum 40 ft or 45 ft to ridge, whichever is shorter;	Conditions <ul style="list-style-type: none"> • At least 150 ft setback from Merrow Rd • Minimal visible height impact from Merrow Rd 	

	OR 3.5 stories if underground parking included	<ul style="list-style-type: none"> • Designed to minimize the visual impact of the increased height • Building has a vegetated or pitched roof
Building Width:	Maximum 240 ft	Conditions Greater than 20 ft <ul style="list-style-type: none"> • Provide variation in the building design, per the Design Guidelines Greater than 200 ft <ul style="list-style-type: none"> • Have at least one step back of at least 6 ft, so that no flat front of the building is longer than 120 ft

Workforce Housing

One of the goals of the TVA district is to provide an increase of housing options in the community. The TVA’s inclusion of workforce housing (as defined by statute) will help to achieve this goal. Requirements for the TVA include:

- 20% workforce housing in each residential or mixed-use project.
- A reduction in workforce housing to no less than 12% if the developer provides public amenities.
- An Affordability Plan consistent with state regulations, rules & guidelines, submitted by the developer.
- Binding deed restrictions for all workforce housing.
- An annual report submitted to the Town confirming compliance.

Summary of Design Guidelines

The TVA zoning regulations have accompanying design guidelines in a standalone document. Importantly, many of these guidelines mirror the more fundamental zoning standards listed in the summary tables above. This arrangement is particularly important for smoothly administering the TVA: if the zoning were ever amended for this area, similar amendments would likely be required for the design guidelines.

Beyond those fundamental standards related to building location and size, the design guidelines address the following elements for commercial and mixed use buildings:

- Signs
- Awnings
- Streets, Walkways and Streetscape
- Open Space, Parks, Plazas and Landscape Features
- Fences and Walls
- Parking
- Utilities, Mechanical and Functional Elements
- Hotel Design

[Permitting Process in the TVA](#)

The vast majority of development proposals in the TVA will require a Special Permit through the Commission. Elements of the Special Permit will include:

- I. **Area Development Plan:** Development and Approval
- II. **Site Plan:** Development and Approval
- III. **Permit Submission:** Follow all standard procedures for site plans, while also meeting requirements of the TVA and its Design Guidelines:
 - Submit approved Area Development Plan and show how the Site Plan complies
 - Show phasing schedule for construction
 - Show architectural elevations of all sides of buildings
- IV. **Project Changes:**
 - Minor changes may be approved by staff.
 - Major changes must submit a new Area Development Plan and Special Permit Application.

Regulating Residential Density

The issue of regulations related to residential density is an important consideration for many communities, and there are several different ways to address this through local zoning. Residential development at higher densities (e.g., mixed use centers, village scale development, transit oriented development, multi-family, etc.) can provide significant benefits to suburban communities. Smaller, lower-cost units provide choices for seniors, first-time home buyers, and other “empty nesters” who either cannot afford the typical single family unit, or prefer a smaller, lower maintenance option. These developments also allow for a much more efficient delivery of services and are more likely to contribute positively to the local tax base. This is particularly true if there is active commercial space associated with the residential development.

When considering how a community will regulate density, it is important to identify the primary concerns related to the district. For example, is the primary concern the impact of the project on neighbors? Aesthetics? Size and Scale? Traffic? Fiscal Impacts? Clearly identifying these different concerns will help to match the best method(s) for use in the zoning regulations.

There are many ways in which regulatory techniques connected to residential density can be categorized. For the purposes of this memorandum, HW will divide regulatory techniques into “direct” and “indirect” as described below.

[Direct Regulation of Residential Density](#)

Direct regulation of residential density is applied when communities identify a specific limit of residential density in the form of a numeric cap. For example, a zoning regulation may specify that a

particular district shall have residential development “at a density no greater than 15 units per acre.” This format of “units per acre” is the most common way to express density in zoning regulations; however, some communities (including Tolland) choose to regulate on a “bedrooms per acre” basis (See Section 9-6 Multi-Family Developments).

The greatest advantage of the “units per acre” approach is its simplicity and clarity. For residents and local officials, this approach immediately conveys a sense of what a site can yield in terms of residential units. For example, if a site is ten acres, then a cap of 15 units per acre will potentially yield 150 units of housing. However, many communities do not necessarily include the entire acreage of a site into these density calculations, depending on certain site features. It is important for zoning regulations to be clear about the site features that are to be removed from what can be considered developable.

The most common features to remove in determining developable land are those that are regulated by state or federal law such as wetlands and streams. Other features that communities sometimes choose to remove include steep slopes, bedrock outcrops, buffers for wetlands and streams, and an assumed percentage of the site that will be dedicated to infrastructure (e.g., 10-15% for roadways and utilities).

A hypothetical calculation for a Town that provides extra protection to a 100-foot wetland buffer, and discourages development on slopes in excess of 25%, may appear as follows:

Site Area: 10 acres

Undevelopable Land

- Wetlands = 1.3 acres
- Areas with slopes in excess of 25% = 0.8 acres
- Area in wetland buffer = 0.9 acres
- Total undevelopable land = 3.0 acres

Developable Land

- 10.0 acres total – 3.0 acres undevelopable land = 7.0 acres

Housing Yield

- 15 units per acre x 7.0 acres = 105 units

This calculation demonstrates how site constraints can be used to diminish the overall yield of a site, which may be appropriate given the need for resource protection. However, if the Town wishes to implement this approach, HW recommends that the Town have a policy discussion regarding constraints that are *not typically* regulated. Steep slopes, for example, are not typically regulated in the same manner as a resource like wetlands. Further, what is considered “steep” is currently somewhat subjective in the Town’s regulations and needs to be defined. In this instance, it is important to reflect on the particular goals of the TVA (e.g., Is this area identified as a growth center?) and the sensitivity of the on-site resources (e.g., Are adjacent wetlands “highly functioning” for habitat or flood control?). Documents like the Plan of Conservation and Design (POCD) may be helpful in this regard. It is also worth noting that Section 9-6 of the zoning regulations (Multi-Family Developments) regulates density in a similar fashion. Developable land is defined there as follows:

“Developable area shall be defined as land exclusive of wetlands, watercourses, water bodies, steep slopes in excess of 20%, as measured over a distance of 50 or more lineal feet, and ledge outcroppings over 200 sq. ft. in area.”

As a final note of caution on the direct regulation of residential density, standards and calculations like those described above are often difficult for the average resident to visualize. Professional developers, real estate agents, and planners can often quickly form a mental picture of what a development may look like at 12, 20, or 30 units per acre. For the layperson, however, these numbers can be confusing and sometimes unsettling. Someone who is comfortable with the idea of a new three-story apartment building may become upset if that same development is described as a building with 18 units per acre. How Town staff communicates residential density to the public can have a significant effect on the tone of future discussions. A “units per acre” approach can lead to unnecessary opposition to a development that might otherwise be welcomed by the community if “what it looks like” is described and shown instead.

HW has developed numerous guidance documents related to compact development, village development, and transit oriented development (TOD) to help rural and suburban communities think about and visualize residential density at different scales. While there is no perfect, universal density threshold for successful village districts and town centers, typical numbers used in HW’s guidance documents fall in the following ranges:

- **8-12 units per acre** creates the kind of density found in a small-scale New England village. Houses are close together and generally one or two stories tall, including any that may have a mixed use component.
- **12-20 units per acre** fosters larger buildings, smaller setbacks, and heights of up to three stories. Small-scale but densely developed Main Streets in New England often fit within these residential densities. Such areas, often developed at the turn of the 20th century, may include structures with ornate flat rooftops in addition to traditional pitched roof styles.
- **20 units per acre and over** achieves residential densities suitable to busier economic centers, higher density growth zones, and busy transit oriented development (TOD) sites. Building heights of four stories and higher will be found in these areas.

These descriptions are meant to provide planning-level guidance and certainly do not include the fine grain considerations associated with actual architectural design and site engineering. Even with these limitations, understanding where different densities can affect building height and the overall “feel” of a particular district can be useful.

[Indirect Regulation of Residential Density](#)

Regulating density indirectly simply means that development restrictions for a zoning district *other* than direct numeric caps work together to naturally limit residential density. The most obvious restrictions that limit density include maximum building height, building setbacks, and any other design restrictions on massing. Those standards directly regulate the size of buildings, and therefore indirectly set limitations on density. Other site design requirements that indirectly limit density are elements such as parking areas and utilities that consume land area that might otherwise be available for residential structures. If parking requirements are strict, the resulting area dedicated to parking facilities will limit

what could be used for buildings. Similarly, if requirements for stormwater management include surface treatments like swales, bioretention facilities, or detention ponds, these facilities will also consume land area and indirectly limit the overall amount of residential development that can fit on the site. Buffers to adjacent properties, buffers to wetlands, landscaping requirements, and requirements for open space amenities are all examples of requirements that limit the overall development yield of a site.

Another density tool HW has used with other communities deals with bedroom counts. Several communities have written into their zoning an average bedroom count for any given development proposal. For example, a zoning regulation might specify that the average bedroom count per housing unit for a given development proposal shall not exceed 1.5. The goal, in this example, is to steer the developer towards lower or higher bedroom counts. This number can be adjusted depending on the housing needs of the community.

One advantage to relying on indirect methods for regulating density is that these standards usually focus on more accessible, concrete issues related to design. When zoning discussions focus on issues related to site design and building design, chances increase for actually creating buildings with high quality design. Often, if design standards effectively address building height, building form, building materials, fenestration, rooflines, massing, landscaping, and parking lot design—the question of the final residential density becomes less important. Depending on the calculations used, more housing units may be allowed with this indirect approach than if a developer were subject to a direct density cap. However, this may be acceptable to the Town if its prescriptive design requirements lead to higher quality design of the final product.

As an important side note, lack of infrastructure is often the primary obstacle communities face in achieving compact development. In areas where the roadway infrastructure is designed with limited capacity, or where there is an absence of centralized water supply or wastewater disposal—these conditions can have an enormous effect on the ability to build significant residential densities. However, these issues generally fall outside the jurisdiction of zoning and are not really a limiting factor for the TVA, and therefore they are not addressed in detail in this memorandum.

[Regulating Residential Density in the TVA](#)

As the first section of this memorandum illustrates, the existing TVA relies on an indirect approach to regulate residential density through a fairly complex set of local regulations. The Zoning Regulations, Low Impact Development Manual, and TVA Design Guidelines all work in concert to set limitations on the scale and density of development. As a review, standards related to the TVA that will serve to limit development potential include, but may not be limited to:

- Building height;
- Building width;
- Building setbacks;
- Buffers to residential areas;
- Protection of sensitive resources;
- Stormwater management (LID required);
- Minimum parking standards; and

- Open space requirements.

Given the amount of regulation that indirectly frames the development capacity of the TVA, and the recurring goal statement of providing flexibility within the regulations, HW finds that adding a fixed number for maximum housing density on the site may not meet the spirit of these regulations. However, HW also finds that compliance with stormwater treatment standards and protection of wetland resources on site are consistent with the clearly stated goals of the district. These environmental objectives could significantly impact the overall development potential for the site. Balancing the desire for higher density housing with the environmental objectives of the site will be challenging for both the developer (as the designer) and the Town (as the reviewer).

Regulating the Mix of Uses in the TVA

In addition to the issue of regulating density, HW was asked to provide commentary on the issue of mixing commercial with residential use and whether there can be regulatory approaches that help to yield desirable outcomes. Communities looking to create village-scale, compact, walkable, mixed use centers generally want to maximize the amount of commercial space, particularly on the ground floor, for a variety of reasons:

- Commercial uses are often taxed at a higher rate than residential uses;
- Commercial uses typically require fewer municipal services;
- A mix of commercial and residential use creates opportunities for shared parking and may create a more even traffic pattern over the course of a given day;
- Commercial use, particularly at the street level, creates more activity and can result in a more vibrant every-day experience for workers, residents, and consumers.

Similar to the residential density question, there are different ways in which to regulate this issue and at varying levels of detail. The most direct manner is to set a fixed ratio or percentage. For example, a regulation could require that residential use may only account for “one third of the total gross floor area.” Or a regulation could require, at a minimum, that “one third of all developed floor area shall be commercial use.” These represent a fairly clear, but blunt approach to determining a basic mix of uses.

Another slightly more sophisticated approach calls for commercial use on the first floor of all buildings, or of those buildings identified as “Main Street” structures. This is the approach used in the existing TVA zoning district and is fairly common in other village districts throughout New England. The purpose of this standard is to achieve the goals of the district through the development (or redevelopment) of a traditional Main Street environment where visitors and residents can visit several shops in a single trip and move from one store to another on foot.

Our recent experience with this issue in other communities demonstrates that there is a pattern in which municipalities and developers are having difficulties coming to agreement. As discussed, municipalities often approach this from a “place making” and/or fiscal perspective. Their highest priority is to create a vibrant mixed use center that provides a significant bump to the local tax base. Developers approach the issue from the perspective of financial viability and are more influenced by market forces.

HW regularly researches the work of market professionals and occasionally works directly with these professionals on planning projects. Our firm also works with private developers to help shape village scale proposals in different communities. While there are subtle differences from one community to another, we do see patterns in the regional market that also seem to extend across the country. In most communities, market demand for retail and conventional office space is down. Conversely, demand for multi-family housing is strong and represents one of the only real estate sectors of true opportunity in the current market. These conditions are creating caution and pushback from developers who are afraid they can easily overreach the current demand for commercial space. On the other hand, these conditions are creating strong financial incentives for developers to increase the amount of residential use within a given mixed use project. The overall result of these different perspectives can create a tension in the planning and permitting process.

In an effort to come to some level of compromise, communities and developers can employ a variety of tools and initiatives, including, but not limited to:

- The host community can set a numeric property tax goal for the property or examine different scenarios to help everyone involved better understand their fiscal goals.
- The host community and the developer can work collaboratively to identify those areas in the concept plan where commercial use on the ground floor is absolutely essential to meeting the goals outlined in the POCD, and where there may be some flexibility. As these would be tied to a specific development proposal, the Town might choose to enforce these agreements through covenants rather than zoning amendments.
- The host community may allow for residential portions of the project to be built first as part of a larger phasing program. This may provide the developer with a higher early revenue stream and help mitigate risks associated with future phases that include commercial/mixed use.
- Building types can be identified that allow for either residential or commercial (usually office) use in a way that is visually appealing. This would allow for transition between uses within the building as market demands may change.