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THE FRONTIER OF FORM-BASED CODES

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Introduction:

Form-based codes let planners return to fundamental concerns about the design of towns and cities, with a primary emphasis on physical form. These codes avoid making separation of land uses the dominant function of regulation as is the case with standard zoning. Instead they provide effective tools to regulate higher intensities and greater mixes of uses in attractive urban forms. Form-based codes are proving indispensable for communities that want a broad application of walkable urbanism, to make new auto-dependent areas the exception rather than the norm.



Miami 21, Your City, Your Plan illustrations, showing build-out of under developed area guided by their form based code. Source: City of Miami FL

Form-based codes begin with exploration of a place, to discover its time-tested aspects, those beloved buildings, blocks and neighborhoods which remain continually useful, hold up well and get even better over time. Each new code requires a careful survey to identify inherently efficient and sustainable aspects of a place, which the code then seeks to perpetuate or expand. Planners consider the local and regional variations in building and design traditions to accommodate the best designs for each part of a community.

A “regulating plan” (actually a map) is created to shape different parts of each community. The regulating plan shows streets – their function and location – in relationship to buildings and open spaces. Clear illustrations show the building envelope, height, and placement. Architectural standards are often included. The use of land is still regulated, but use is one among several determinants of city form instead of the primary one. Meanwhile,

street cross-sections show lane widths, on-street parking, sidewalks, and amenities like street trees.

Until recently, most form-based codes implemented urban design plans for relatively small areas, ranging from individual development sites, to entire neighborhoods, a downtown or even a new town. They are inserted into a town, city or county code, often with special form-based zoning districts.

A new trend is citywide codes, the most prominent being the recently adopted Miami 21 for the city of Miami FL, with Denver CO being the latest large-city example. Form-based codes are also being tested further up the scale as key tools in regional planning to control suburban sprawl by implementing community plans and resource conservation plans on the urban fringe and in rural areas. These codes can shape an attractive landscape at various points along the urban to rural continuum. Recent examples are summarized below.

Planning New Villages for the Treasure Coast

A promising experiment is underway in St. Lucie County, Florida, a rural citrus-growing area of the state’s northeast coast. A form-based code now covers 28 square miles in an unincorporated area on the edge of Fort Pierce, the county seat. This code implements the “Towns, Villages, and Countryside Plan” plan (TVC) of the Treasure Coast Regional Planning Council, an effort which was four years in the making, with the code becoming effective in 2008.

The TVC plan seeks to permanently preserve 60 to 75 percent of the rural landscape, even anticipating a gradual conversion of grapefruit groves battered by diseases into specialty crops for local markets. It combines



this concern with a water management system that restores agricultural ditches into naturalized stream flows that slows drainage into coastal waters while creating a navigable recreational asset.

The new form-based code was drafted to fit into the county's unified development code. It provides specific tools to implement the plan's vision, to create new villages and towns for a growing population, set in the midst of preserved countryside.

Key to the St. Lucie County approach are new

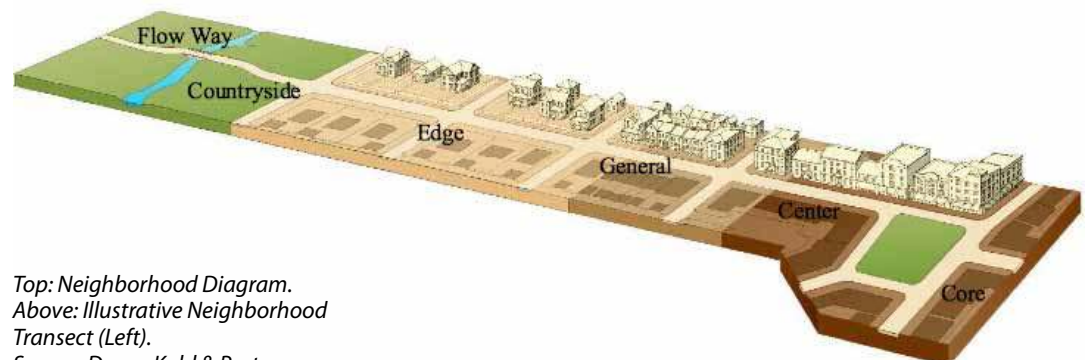
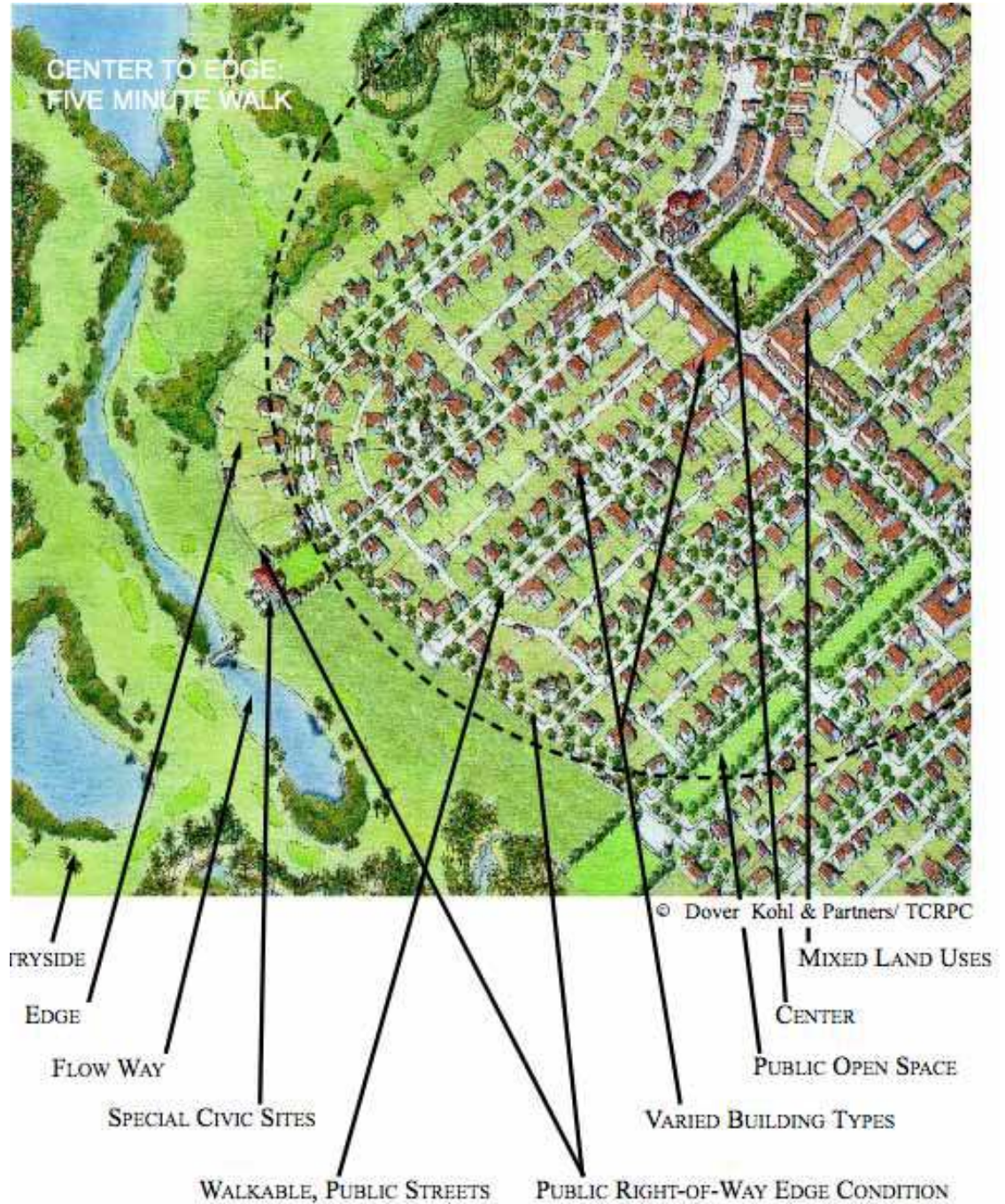
"floating zones" that provide clear standards for each new town or village and guarantee protection of surrounding farmland. The exact locations of new towns are not specifically designated on the county's future land use map; they may emerge in various possible locales according to market forces. But their physical form is clearly defined in the code.

Rezoning is required for any property owner who wishes to develop a new town or village. Prospective developers will draft an individual regulating plan for each new town. Each plan must allocate the entire area into urban and

(Illustration above) Towns, Villages and the Countryside: A New Pattern of Settlement for North St. Lucie County, Treasure Coast Regional Planning Council, St. Lucie, FL

(Summary) Neighborhoods form the basic building block for all new Towns and Villages. The components of a Neighborhood are arranged to be compatible in scale and character with existing adjacent uses. Neighborhoods shall exhibit the following characteristics:

1. **Neighborhood Size.** The neighborhood size shall be scaled upon a five-minute walk radius
2. **The Transect.** A Neighborhood shall contain a mix of uses including residential, retail, office, civic and recreation spaces that support the daily needs of its residents within walking distance.
3. **Variety of Housing Types.**
4. **Civic Uses.** Each Neighborhood shall contain at least one Civic building.
5. **Walkable Blocks.** Blocks shall be scaled to accommodate a variety of building types and encourage pedestrian traffic.
6. **Proper Building Placement.** Building types of like scale, massing, and uses shall face one another on a given street.
7. **Street Network.** Neighborhoods shall have an interconnected network of public streets designed to balance the needs of all users.
8. **Mix of Uses.** Every neighborhood should support residential uses, a civic site, and at least one Local Store.
9. **Countryside.** A significant amount of Open Space is designated for the Countryside to preserve and restore native habitats; provide for sustained agriculture; and help mitigate the ecological impacts of new development.



Top: Neighborhood Diagram.
 Above: Illustrative Neighborhood Transect (Left).
 Source: Dover, Kohl & Partners



(Right) In the conventional pattern of development at the top the uses are strictly separated, roads don't connect except through a major arterial. In the bottom section with new patterns of development (New Urbanism) uses coexist and form multi-income, multi-use neighborhoods. All roads connect. Courtesy Duany Plater-Zyberk and Company

rural transect zones and show the entire interconnected street network and proposed building types for all lots. Illustrations in the code provide 11 pre-approved street and lot types; developers can propose variations at the time of rezoning. Strict standards govern maximum block sizes, to create an appropriately scaled street network.

This approach contrasts with a form-based

code for a smaller area, where the regulating plan is contained in the city or county code. In St. Lucie County, developers draft a regulating plan for their property, then submit it for county approval through rezoning. Remaining agricultural areas are relieved of the pressure of urban land values through the transfer of development rights into the proposed town and village locations. Agricultural conservation easements will



secure these transfers, explicitly allowing farming ranging from large-scale citrus groves all the way to niche produce farming.

The code requires a new surface water management system, allowing regional scale handling of stormwater, a navigable riverine system to repair the damage of the older, straight drainage canals that have been polluting coastal waters. This regional water management system will allow new villages to dispense with the anti-urban retention basins that are usually scattered throughout new subdivisions. The County Commissioners will authorize rezoning for each new town or village; county staff will administer the code after the initial rezoning.

Since the Great Recession has stalled urban development throughout Florida, it is too early to gauge the success of St. Lucie County's particular approach. However, it is now clear that form-based techniques that were refined for urban infill can also play an important role at and beyond the urban fringe.

More Codes for Rural Florida

The influence of the Treasure Coast TVC plan is felt across the state on the Gulf Side, where Sarasota and Lee counties have produced further innovations. Sarasota County has adopted a form-based code with future land use map for unincorporated areas, simultaneously designating new village center areas and "redevelopment corridors", which would have transportation projects follow land use policy. Proposals must receive rezoning to a new PMI zoning district. A charette-based planning process is required.

Lee County planners advanced upon the St. Lucie County approach by avoiding "floating zones", instead putting the regulating plans for new village areas within the code itself. It's a big step, overcoming the need for rezoning that might discourage prospective

developers. And Lee County planners were able to select locations for new villages based on legitimate planning factors. The county's varied topography, unlike the flat, undifferentiated citrus grove landscape of St. Lucie County, allowed them to identify prospective development sites, placing a designated village area on the property of each major landowner. These locations are designated in the comprehensive plan.

The plan, known as Density Reduction/ Groundwater Resource Plan (DR/GR), covers 150 square miles in a rural sector southeast of Fort Myers. The accompanying Land Development Code borrows much of its graphics and dimensions from the Sarasota County code. But unlike more affluent Sarasota County, Lee County gives up re-zoning power, placing fewer requirements on developers.

Still, the elements of a well-crafted form-based code are found in Lee County, beginning with a two-week charette that engaged all stakeholders. The new code combines regional conservation goals with clear portrayals of the built environment to the lot and block level. A TDR program is designed to channel development into the new villages, while the code's clear renderings show new villages as mixed-use centers with fine gradations of density from core to edge, built at sufficient density to support transit service within a growing network of rural area villages. The DR/GR combines this with large-scale ecosystem integrity and retention of lands for ecologically responsible farming.

An Early Form-Based Regional Code Takes Shapes in Georgia

While the recent county-led coding in Florida remains largely on paper, unlikely to be tested until the housing market revives, a remarkable new community in Georgia begins to take shape. Serenbe, a village now rising about 25 miles south of downtown Atlanta, shows



the promise that form-based codes hold for large semi-rural areas on the fringe of a metropolitan region.

The new community comes about through a community-led planning effort going back to the early 2000s, when Steve and Marie Nygren and other local landowners formed the Chattahoochee Hill Country Alliance (CHCA). In 5 years, the citizen-led group produced the CHC Community Plan, to cluster new development into villages and hamlets. The plan, if fully implemented, will preserve up to 80% of the 40,000-acre hill country area as open space.

This plan, created through participatory process with strong community backing, was incorporated into Fulton County's comprehensive land use plan for the area, as well as the county's overlay district ordinance for the hill country. The CHC Plan identifies 3 locations for intensively built villages, while envisioning smaller "hamlets" at key intersections throughout the area. The overlay ordinance (passed in 2002), then creates special districts for these. A voluntary TDR program, giving one development right per acre in the sending areas, is intended to direct development into the target areas.

The plan is threatened by the county's weak

base zoning for the area, which allows as-of-right one (1) d.u./acre on agricultural land. The voluntary TDR program would need a lower density base zoning for small to medium landowners to see profit in the TDR; they might just as well sell to developers ready to build at the county's sprawling density. However, with the plan and overlay ordinance in place, larger landowners (1000 or more acres) have enough land already to build the envisioned villages and hamlets without need of the TDR program.

The 1000-acre Serenbe village includes three hamlets or clusters of homes, shops and restaurants, and working farmland within the village area. Two of the hamlets, with a population of approximately 170 residents, are largely complete. They line a serpentine road following the gentle roll of the landscape, in contemporary and locally inspired vernacular styles, offering single-family, townhouse and live-work arrangements. Buildings come close to the roadway, conserving an encircling pattern of woodlands and fields connected by hiking and horse paths. Small organic farms supply local restaurants and a farm market.

Top Left: Serenbe Village rural intersection. Top: A contextural residence. Above: One of many trails.

