Large-scale, master-planned developments are complex undertakings that take several years to construct. They pose unique challenges, but they also provide opportunities for planners to influence the development of whole, balanced communities, not just individual developments. When large, master-planned communities are proposed, planners can more readily apply community planning objectives, such as more optimal mixes of uses, appropriate open spaces, higher (urban) densities, adequate public facilities, better-connected multimodal transportation systems, and designs that conform to principles of community and neighborhood planning and new urbanism.

Horizon West is a 23,000-acre planning area in Orange County, Florida, composed of several mixed-use, pedestrian-scale villages surrounded by greenbelts and supported by a mixed-use Town Center. Plans for development in Horizon West incorporate principles of new urbanism and neighborhood planning into a blueprint for more sustainable communities. Its scale has dictated the combination of many different planning tools, including specific area plans, minimum density requirements, development agreements, transfer of development rights, and adequate public facilities requirements.

The evolution of Horizon West provides the opportunity to share observations about how development in the planning area has progressed and look at the challenges that remain. Planners in other jurisdictions who are seeking to influence the patterns and character of large-scale, master-planned communities will find value in this case study. Lessons from Horizon West, gleaned from implementation over the past several years, can help planners in other communities anticipate issues and pose solutions before — rather than after — development has been approved and is taking place.

BACKGROUND

Orange County and Horizon West

Orange County, Florida, is a metropolitan county located in the fast-growing Central Florida area with an estimated population of 1.3 million in 2004. Another 500,000 residents live in the larger metropolitan area. Orlando is the county seat. The U.S. Census estimates that Orange County gained more than 18,000 residents per year between 2000 and 2004. While some of this is due to natural increase (births minus deaths) of the population, Orange County continues to attract new residents because of economic growth, low unemployment rate, relatively low cost of living, quality of life, and mild climate.

The Horizon West planning area is located in southwest Orange County, just north of the internationally renowned International Drive tourist corridor, anchored by the Walt Disney Company's theme parks and resorts (see Figure 1). With more than 52,000 jobs, the Walt Disney Company is the largest single-site employer in the U.S. The Orlando Convention and Visitors Bureau reports that 47.7 million people visited the Orlando area in 2004, and the trade publication Amusement Business estimates close to 65 million people attended the area's theme parks in 2005.
A series of uncharacteristic and devastating weather "freezes" in the late 1980s led to the decline of southwest Orange County's primary agricultural crop: citrus. Unlike other agricultural products, citrus trees take many years to become established. Consequently, the industry promptly relocated to the milder climate of South Florida. These properties were subject to development pressures, but their land-use entitlements predominately were one dwelling unit per 10 acres and agricultural zoning.

In the 1990s, when agriculture was no longer viable in southwest Orange County, these types of economic and growth trends led to pressure for suburban and tourist-related development in the area's former citrus groves. New communities made up of several mixed-use, pedestrian-scaled villages surrounded by greenbelts are now being developed within the 23,000-acre Horizon West planning area. Horizon West's villages are supported by a mixed-use town center that offers regional commercial, office, and light industrial land uses and workplaces, complemented by higher-density residential uses to enhance the jobs-housing balance.

In 1995, the original Horizon West concept included nine villages and a town center on 38,000 acres. Since that time, thousands of acres have been removed from the village designation and Horizon West planning area by municipal annexations and the creation of the Lake Avalon Rural Settlement. In 2004, Lake Avalon residents petitioned Orange County for removal from the planning area and establishment of design guidelines to retain their large-lot, rural residential development pattern and rural character. As such, the current Horizon West planning area is now 23,000 acres — almost 36 square miles.

**The Florida Planning Context**

In Florida, every local government is required by the state's growth management laws to adopt a comprehensive plan, analogous to the general plans required by the state of California. The comprehensive plan contains data and analysis, and related goals, objectives, and policies that address land use, transportation, housing, and other growth and community issues. Comprehensive plans must contain a future land-use map depicting land-use patterns that reflect the plan's goals, objectives, and policies. The future land-use map also designates the allowable land uses to a parcel level within a 20-year planning horizon.

Changes to a local government's future land-use map, under most circumstances, must be reviewed by the Florida Department of Community Affairs (DCA) to ensure that statutory requirements are met. These include, among other things, guidelines for achieving compact growth and avoiding urban sprawl. Florida's laws (Chapter 163 and 380, Florida Statutes) also require "concurrency," or the provision of adequate public facilities and services concurrent with the new development. Facilities and services must be assured in the planning process, as well as provided at the time development impacts occur.

For large-scale developments, statutory objectives often are achieved using either the Development of Regional Impact (DRI) or sector planning processes. The DRI process, one of the earliest components of Florida's growth management program, requires that projects exceeding certain development thresholds must provide infrastructure to mitigate the regional and extrajurisdictional impacts they create.

Recognizing the regulatory burdens of the DRI process, an optional planning process called sector planning (Section 163.3245, Florida Statutes) was added to the state's growth management laws in 1998 as an alternative to the DRI process. As part of a Sector Plan Demonstration Project authorized under Florida's growth management law, large-scale developments are not required to undergo Florida's DRI review process, which results in considerable savings of time and resources. Sector plans consist of detailed specific area plans for the "buildout," or complete development, of the planning area's land uses,
as well as environmental protection, and adequate, concurrent infrastructure. Horizon West is a sector plan under these criteria, and the plan helps to ensure that buildout can be accommodated with the timely provision of public facilities and services while communicating the current and future stages of Horizon West's vision and development. Florida's landmark growth management laws thus provide the framework of planning requirements and regulations that shaped Orange County's approach in making a rural-to-urban land transition in the Horizon West planning area.

The Neighborhood Planning Unit and New Urbanism

Besides the state's growth management laws, other planning concepts and needs have influenced Horizon West's planning and development. To avoid a fragmented land-use pattern and urban sprawl, an adaptation of Clarence Perry's concept of the neighborhood unit inspired the project's design for walkable and school-centered neighborhoods and was the basis for the design of several villages and a town center surrounded by greenbelts. While this concept (see Figure 2) was new to Orange County, it was well-received by the vast majority of property owners and the development community because of the rapid decline of agriculture in the area, the planning area's proximity to Orange County's tourist corridor, and the properties' existing rural land-use entitlements of one dwelling unit per 10 acres. The community and property owners also appreciated the significant public participation process used to design Horizon West, its villages, and town center.

Horizon West also has been influenced by a number of smart growth and new urbanist concepts, including the mixing of land uses, providing a broad range of housing types, encouraging community collaboration, preserving open space and environmental areas, ensuring connections in the street system, building compact and pedestrian-friendly neighborhoods, and providing a range of parks within neighborhoods. The use of these concepts in Horizon West has been articulated in the following Community Planning Principles that apply to all of Horizon West.

Orange County's Community Planning Principles

A. Planning for the village shall be in the form of complete and integrated neighborhoods containing housing, shops, workplaces, schools, parks, and civic facilities essential to the daily life of the village residents.

B. Village size shall be designed so that housing is generally within a 1.2-mile radius of the village center (shops, services, and other activities). This radius may be relaxed where natural or community facilities and services interrupt the design.

C. A village shall contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.

D. Wherever possible, as many activities as possible shall be located within an easy walking distance of an existing or designated transit stop.

E. The village and each neighborhood shall have a center focus that combines commercial, civic, cultural, and recreational uses. Higher density residential development should be encouraged in proximity to these centers, with the highest
density/attached housing encouraged in proximity to the village center.

F. The village shall contain an ample supply of specialized open space in the form of squares, greens, and parks whose frequent use is encouraged through placement and design.

G. Each village shall have a well-defined edge, such as greenbelts or wildlife corridors permanently protected from development.

H. Local and collector streets, pedestrian paths, and bike paths shall contribute to a system of fully connected and interesting routes from individual neighborhoods to the village center and to other villages. Their design should encourage pedestrian and bicycle use by being spatially defined by buildings, trees, and lighting, and by discouraging high-speed traffic.

I. Wherever possible, the natural terrain, drainage, and vegetation of the area shall be preserved with superior examples contained within parks or greenbelts.

J. The village center shall be designed to encourage and accommodate linkage with the regional transit system.

Source: Future Land Use Element Policy 6.1.1, Orange County 2000-2020 Comprehensive Policy Plan

Since their adoption in 1995, these principles have provided the context for Horizon West's overall concept planning, down to its detailed development standards and its extensive public participation.

FACTS OF THE CASE

Though not nearly complete, implementation of the Horizon West Sector plan has progressed substantially over the past several years. The Horizon West planning area involved the conversion of rural residential and agricultural land to uses that will meet the demands of high population, employment, and tourism growth in Orange County. Transportation planning efforts range from expressway planning to neighborhood trails. To obtain and preserve the greenbelts, development is based on the transfer of development rights within the planning area. Architectural and design standards are required for all villages. Finally, an adequate public facilities ordinance ensures coordinated facilities planning and requires fair-share contributions as Horizon West develops over time. These aspects of Horizon West are described in further detail below.

Specific Area Plans for Villages

To create the Horizon West concept, enabling policies for Horizon West were adopted into Orange County's comprehensive plan, along with a new future land-use designation of "village." Consistent with Florida's growth management laws, all properties in Orange County have future land-use designations at the parcel level that are adopted in the local government's comprehensive plan and that specify allowable land-use categories. Within each of Horizon West's villages, a minimum residential density of four or five dwellings per net developable acre is specified. The minimum density specification is a key land-use policy given that only a few of Orange County's numerous future land designations set a minimum density standard.

The village designation allows the property owners to participate in the development of a "Specific Area Plan (SAP)," which is a master plan for the complete implementation of a new village in Horizon West. An SAP and its corresponding policies and future land uses are then adopted into the Orange County 2000-2020 Comprehensive Policy Plan. Individual villages are approved from a regulatory standpoint through planned development rezonings, preliminary subdivision plans, development plans, and other aspects of the development review process. If properties have the village designation but do not yet have an adopted SAP, the properties' entitlements (allowable land uses and densities) remain at one dwelling unit...
per 10 acres with agricultural zoning.

Horizon West's SAPs for each village must include detailed land-use planning, environmental analysis, transportation analysis, assessment of adequate public facilities necessary for development, conceptual design standards, and market and fiscal impact analyses. Villages are scaled to provide appropriately sized neighborhood schools located at the heart of the community.

Within the current boundaries of Horizon West, the first village SAP, Lakeside Village, was approved in May 1997 (see Figure 3). Villages are made up of two to four neighborhoods with associated commercial, school, and park uses to serve the community. Lakeside Village's development program included three neighborhoods, with a fourth neighborhood added in 2000, and a village center on 5,194 acres. The SAP envisions 10,455 housing units on an estimated 2,092 developable acres.

In March 1999, Orange County approved the second village, the Village of Bridgewater. The Village of Bridgewater is composed of four neighborhoods and a village center in the 4,859-acre community (see Figure 4). The SAP now includes 9,390 single-family houses, townhouses, villas, and apartments.

In Orange County's Comprehensive Policy Plan, Future Land Use Element, there are policies for the overall land use and design concepts for Horizon West, including standards for size, orientation, densities, interconnectivity, walkability, and open space. The village code is Chapter 38, Article VIII, Division 8, of the Orange County Code, which is available on the Municode.com website (www.municode.com).

Orange County’s Future Land Use Element Policy 6.2.10 requires the following minimum net densities in each residential district: Estate Home District, minimum average net density of 3.0 dwelling units per acre; Village Home District, minimum average net density of 6.0 dwelling units per acre; and Townhouse/Apartment District, minimum average net density of 12.0 dwelling units per acre. These standards are intended to ensure a range of compatible densities throughout the villages and the clustering of residential development away from wetland areas.

**Schools and Parks**

Horizon West is a community that will be built one neighborhood at a time, as the neighborhood is the cornerstone of Horizon West's planning concept. Each village, which can be between 1,000 and 3,000 acres, can contain from two to four neighborhoods, each composed of approximately 500 acres. Each neighborhood in Horizon West's villages has an elementary school at its center and is connected by multi-use paths (see Figures 5) and a park, ensuring a pedestrian-friendly walk of no more than one-half mile from the neighborhood's housing.
The elementary schools are sized to correspond to the number of housing units in each neighborhood and to be generally within one half-mile walking distance. Prior to development of a neighborhood, elementary school sites must be dedicated to Orange County. Similarly, middle schools also are required for each village and must be linked to the commercial uses in the village center. Nonresidential development in the village center cannot occur until these middle school sites are dedicated to Orange County.

Complementing the neighborhood schools, 5-acre parks are located adjacent to each elementary school and provide facilities for joint use of the school and neighborhood (see Figure 6). By county policy, parks or open space of fewer than five acres must be maintained by homeowners associations, so as to allow the focus of critical park resources to be on activity-based parks that serve community and regional needs. A 30-acre community park site is included in the adopted Town Center SAP to meet those anticipated needs. At the other end of the park spectrum, a number of "pocket parks," squares, and open spaces are required throughout the neighborhoods, with developers and homeowners associations retaining maintenance responsibility. As with other land uses, parks and open spaces are connected to the community as a whole by a network of multi-use paths.

**Transportation**

Horizon West's rural-to-urban transition has required the complete spectrum of transportation planning efforts, involving expressway planning and construction, the planning and enhancement of a regional network of arterial roadways, and the development and provision of sidewalks and trails. The Orlando-Orange County Expressway Authority (OOCEA) plans and constructs the majority of limited-access and toll facilities in Orange County. The OOCEA worked with Orange County and a consortium of property owners to bring State Road 429, also known as the Daniel Webster Western Beltway, south through the Horizon West planning area to eventually connect to Walt Disney World properties. A Western Beltway interchange at State Road 535 north of Horizon West opened in December 2002. The Western Beltway construction phase, scheduled for completion in December 2006, will add two interchanges in the Town Center area in the center of Horizon West.

To facilitate planning of a regional roadway network, Orange County completed a Southwest Orange County Transportation Needs Study in 2001 to plan Horizon West's connections to adjacent Lake County and to identify what new urban roadways and roadway improvements would be needed for the project. Early in 2005, Orange County began a preliminary engineering study for several roadways in the Village of Bridgewater to assess options for roadway widening and realignment, signalization and intersection improvements, additional sidewalks and multi-use trails, and drainage and lighting enhancements.

There is a county policy that expressways and principal arterials cannot sever villages, so these facilities will enhance connectivity within the villages and not fragment the land-use pattern of the village. To ensure livable and functional streets in communities of Horizon West, street cross-sections are included in each SAP (see Figure 7). Each SAP also includes requirements for street trees, interconnectivity, roundabouts, and the overall transit system. To help ensure interconnectivity between all residential and nonresidential areas, gated communities and cul-de-sacs are restricted.

Horizon West as a whole is intended to achieve connections among all parts of the planning area. Each neighborhood must be connected by a hierarchical network of multi-use paths to schools, parks, and commercial centers. These paths range from 14 feet wide or greater for primary paths, 8 to 13 feet for secondary paths, and 5 to 8 feet for connector paths. These paths are necessary to enhance the connectivity and accessibility of all land uses in Horizon West.
The Environment

To maintain and enhance Horizon West's environmental resources, Orange County has implemented greenbelts and the Transfer of Development Rights (TDR) for each village. The TDR concept involves the purchase of a development right to construct one or more units in a "sending area," usually environmentally sensitive, to be used in a "receiving area," an urban area to which growth is directed in an overall master or community plan. To obtain and preserve greenbelts around each village, which average 500 feet in width, development is transferred within the applicable village.

Horizon West's TDR system is unusual in that property owners can "buy up" or "buy down" TDRs to develop property at higher or lower than the minimum required density, respectively. Properties within the greenbelt are granted development rights for the purposes of the TDR system, not for physical development, by Section 30-725 through 728 of the Orange County Code, available on the Municode.com website (www.municode.com). This implementation mechanism ensures that TDRs are available. They are then sold by a real estate contract recorded in the public records, with conservation easements and development rights assigned to Orange County.

Relative to wetlands, lakes cover 10 percent of Orange County's total land area, and Horizon West is no exception. More than 110 lakes and ponds (see Figures 8 and 9) are within or adjacent to Horizon West, with associated wetlands also doing much to shape the development form of Horizon West.

The preservation of lands with high aquifer recharge potential is also an important environmental issue. Potable drinking water in Central Florida is drawn from an underground reservoir, the Floridan Aquifer. Land used for citrus farming traditionally is "high and dry," also ideal for aquifer recharge. Orange County's policies continue to evolve to address the preservation of upland areas, also included in the TDR system, for aquifer recharge.

Urban Design

To ensure quality urban design in Horizon West, Orange County has implemented a framework of community and architectural design standards. At the time of this writing, changes to the village code have been proposed and are under review by the county's legal staff. These changes would provide additional design standards and address outstanding issues with the current village code, described in more detail elsewhere in this case study.
Public Facilities

A functional and well-planned community requires proper facilities and services. An Adequate Public Facilities Ordinance (APFO) has been adopted to help ensure coordinated facilities planning and fair share contributions are provided as Horizon West develops over time. The APFO, Section 30-710 through 714 of the Orange County Code, includes neighborhood elementary school sites, middle school sites in village centers, 5-acre park sites, rights-of-ways for all collector roadways, and land for necessary utility services. For example, neighborhood park and school sites must be provided by property owners at a ratio of 1 acre for every 6.5 developable acres in Lakeside Village and one acre for every 5.5 developable acres in the Village of Bridgewater.

An adopted policy in Orange County’s comprehensive plan provides a fixed value per acre in impact fee credits not to exceed $22,500, primarily for road and school impact fees. This cap helps ensure that Orange County will not create value for individual property owners by granting urban land uses, only to be forced to spend an increased amount of public funds providing urban services to the area through land purchase or condemnation. APFO lands are conveyed to Orange County through a development agreement.

OUTCOMES

At this time, two of the Horizon West villages — Lakeside Village and the Village of Bridgewater — are under construction, with close to 2,000 certificates of occupancy issued for residential units and a grocery-anchored shopping center open for business. Two conceptual villages, known at this time as "Village H" and "Village F," are in various stages of comprehensive community planning and development review. The necessary comprehensive plan amendments for Village H have been reviewed by the Orange County Board of County Commissioners at a public hearing and transmitted to the Florida Department of Community Affairs for review, with public hearings and adoption scheduled in May 2006. Village F received conceptual approval of a proposed boundary in February 2005 and is in the community planning process. The Town Center has received comprehensive plan and future land-use approvals, and the process of developing associated land development code standards in preparation for rezoning as a planned development has begun.

Creating Complete Communities

Judy Stewart, Orange County's chief planner for comprehensive planning says, "The application of the Specific Area Plan is the creative planning tool that is developing a comprehensive community with a mixture of land uses, employment opportunities, and civic and recreational amenities within a viable, livable neighborhood." In 2004, Orange County participated in Smart Growth America's national Smart Growth Leadership Institute (SGLI) to obtain technical assistance on implementing smart growth principles. The county's SGLI consultants, Deepak Bahl and Bill Fulton of the University of Southern California, noted: "Horizon West incorporates performance standards to ensure high quality mixed-use developments. These performance standards align themselves well with many of the 10 smart growth principles. ... Horizon West is relevant at a regional scale and addresses uses that are transitioning from more rural to urban."

Citizen Participation

An important outcome of the Horizon West planning process has been the long-term relationships
developed with citizens, area homeowners associations, and community groups that have participated in
different aspects of the planning process. James Sellen, executive vice president of MSCW, Inc. and a
planner who helped articulate the original Horizon West concept, says: "Horizon West was the first plan I
am aware of in the state that truly looked at the buildout of an area as a basis for communicating the
future to the residents and stakeholders. I believe it is this asset of the plan that made it a success.
People actually understood what would happen from an urban form standpoint when the policies were
applied."

Indeed, Orange County's planning processes traditionally have incorporated extensive public participation
in the form of frequent community meetings, comprehensive website information and notices, grants and
other support for community groups, and other outreach. However, the charrette process for Horizon
West was a new method of public participation for Orange County, one that has now been used in similar
projects. "I have always believed that the principles in the village approach will survive as much for the
constituency that was created for this planning solution than any other reason," Sellen says.

**Reduction of Specified Minimum Densities**

With densities originally proposed at a minimum of five dwelling units per acre, topographical features of
the area (which include the 110 lakes and ponds within or adjacent to Horizon West) were resulting in an
overabundance of small-lot housing products and townhouses to meet minimum densities and the loss of
a true mix of residential development types. The minimum density requirement was viewed as critical to
ensuring a diversity of housing types and prices and a strong community spirit in Horizon West.

Like many high-growth areas of the nation, Orange County has seen rapidly escalating housing and land
prices in the last several years, leading to an increasing demand for townhouses over single-family
residences. Horizon West's property owners and development interests have been particularly enamored
with townhouse development as a means of achieving Horizon West's required minimum density. The
significant number of townhouses led to greater need for more specific urban design standards for
townhouses.

The resulting uniformity in housing products, however, also required a change in density standards. Gross
density standards were changed after the adoption of Lakeside Village to require a minimum of four
dwellings per acre and a net density of 3.5 units per acre. This change still provides for urban densities
but is better suited to the environmental and topographical constraints of Horizon West.

**Support for Transit**

The original concept for Horizon West Villages was based on creating an urban form and densities that
support use of transit. Orange County also continues to do internal coordination of land use,
transportation, and planning for eventual mass transit in the area. However, these efforts are complicated
by the fact that transit service, which would be provided by a three-county transit authority, does not
exist in the area now. These conditions likely will change when the appropriate "critical mass" of residents
is found in Horizon West to make transit more economically feasible.

**Trails**

Horizon West was the first time Orange County had required the development of such an extensive
system of trails. Municipal Standard Taxing Units (MSTU) are now being implemented in each village to
assess property owners for maintenance of paths less than 14 feet in width. These MSTU will be applied
to all residential and nonresidential uses except schools. To devise this MSTU, Orange County anticipates
the completion of a study (under way at the time of this writing) that will outline an equitable funding
arrangement.

**Interconnectivity**

Besides the difficulty of planning comprehensive transportation networks between property owners over
such a large area, efforts to provide interconnectivity in Horizon West have had varied results. As with
many Central Florida projects, the many lakes and associated wetlands found in the area make
interconnectivity more challenging. "Children can walk to school where the proximity of sidewalks,
bikeways, linear parks, public parks, and squares to shops and workplaces encourage and empower people to be connected through physical and social networks," says Kendall Keith, a planner and landscape architect with MSCW, Inc., responsible for many Horizon West plans and policies. "This vision recognizes the importance of connectedness for families, parents, children, and friends. It is a vision of a place that endures through relationships, lifestyles, and lifecycles."

To promote interconnectivity, Orange County's policies discourage gated communities in Horizon West, with only three gated subdivisions in the entire project. Recently, Orange County has taken a stronger position on prohibiting gated communities countywide. In 2004 a series of hurricanes in Central Florida created extensive debris removal needs in existing gated communities that were not reimbursed by the Federal Emergency Management Agency, creating new public awareness of the responsibilities involved in these communities. As such, greater interconnectivity is being promoted countywide and in Horizon West in particular.

**Adequate Public Facilities**

The provision of adequate public facilities through cooperative efforts by property owners means that no one property owner disproportionately assumes these responsibilities as the area transitions from rural to urban development. The extensive planning and design completed for Horizon West's villages provide clear expectations and performance standards that limit uncertainty and avoid "re-creating the wheel" during the development review process. Also, the private sector receives assurances that neighboring properties will be developed in a quality manner that supports their project's appearance, functionality, and price.

That is not to say these advantages uniformly address the difficulty of providing complete infrastructure for Horizon West's villages. John H. Percy, AICP, is a senior project manager with Glatting, Jackson, Kercher, Anglin, Lopez, and Rinehart, Inc., the firm working with property owners of portions of Lakeside Village, and in the proposed Village H. According to Percy:

> The biggest challenge we have encountered in our work in Horizon West has been bringing together the often disparate objectives of several different property owners, specifically in finding mechanisms and reaching agreements to ensure that required public facilities are provided in a timely manner. The policies adopted for Horizon West do a very good job of letting landowners know upfront the basic requirements they will be expected to meet if they wish to pursue development. The details of implementation have not been as clear, but as each village has come forward, it seems the property owner agreements and funding mechanisms are becoming more effective in specifying the timing of providing public sites, the method for calculating each owner's share of costs, the timing of payments and other implementation details.

In Horizon West, as in any large greenfield area, the provision of complete infrastructure networks is a logistical and financial challenge. In spite of Orange County's adequate public facilities ordinance, the first developer to obtain development approvals provides an inordinate share of the infrastructure needed to progress. In the past, Orange County traditionally has not been receptive to Community Development Districts (CDD), Educational Facilities Benefit Districts, or other self-financing infrastructure districts allowed under Florida law (see Chapter 190 and Section 1013.355, Florida Statutes). However, recent changes in Horizon West's Comprehensive Policy Plan specifically allow those options to be considered in the Town Center. Orange County recognizes the need for additional areawide financing options for infrastructure. Property owners continue to seek ways to address the significant costs of providing complete urban infrastructure in formerly rural areas. As one example, a consortium of 25 property owners formed a partnership agreement with Orange County to provide additional roadway capacity for their development projects to meet concurrency requirements.

**Challenges with School Concurrency**

School planning in Horizon West now is focused on the provision of a high school site to serve several villages. Given state educational planning guidelines requiring high school sites to be 60 acres, locating a
site of the necessary size has been difficult, especially with the area's escalating land prices. While property owners developing under an adopted SAP are required to provide lands for schools and ensure adequate public facilities, providing a site of that size would be onerous for any one property owner. This dilemma requires cooperation between property owners before their corresponding development proposals can move through the development review process. The Town Center must have a high school site and policy provisions relating to the provision of a school before development can proceed. Another high school site must be accommodated in this area to meet Horizon West's overall projected needs at buildout.

**Improving Urban Design**

As indicated earlier, Horizon West's property owners and development interests have used townhouse development as a means of achieving Horizon West's required minimum density. Previously without townhouse design standards, Orange County has proposed village code revisions that will create new lot width and setback standards, promote the "rear-loading" of units via alleys instead of front driveways, and require porches and garages on 50 percent of townhouse units. The garage standards will address both functional and aesthetic concerns by ensuring a mix of on-street and off-street parking and by improving design.

For nonresidential development, the proposed revisions to the village code will change several major aspects of commercial development to create more urban standards and urban development, compared to Orange County's more suburban standards. First, the revisions would create permitted uses, prohibited uses, and uses available by special exception for Horizon West's specific Neighborhood Center and Village Center commercial districts. Currently, the code references only uses available in the county's standard retail commercial district used countywide. Also, village code revisions will increase allowable lot coverage from 65 percent to 80 percent to create a more urban and pedestrian-friendly environment. "We want to create a walking community where you can actually window shop again," says Jay Sargent, Orange County's chief planner for development review. To facilitate that goal, many revisions also have been proposed to the landscaping and parking standards to create more interconnectivity and better configurations of parking.

**Property Ownership**

Horizon West's progress also has been challenged by proposed projects with land in multiple ownership. While Horizon West's agricultural past ensured some large tracts were available for development, citrus production does not require the same acreage as other agricultural activities, such as cattle farming or production of row crops. In many parts of Horizon West's planning area, parcels are as small as 10 acres, meaning there are multiple owners. Development of the Village Center in Lakeside Village depends on acquisition of the planned school site, which has been constrained for several years by a single property owner's unwillingness to sell the site. The coordination of infrastructure and interconnectivity has been challenging because of multiple property owners instead of a single master developer.

**Transfer of Development Rights (TDR)**

Horizon West's Transfer of Development Rights system has had varying degrees of success during the life of the project. At the time of Horizon West's approval, the market preference in this part of Orange County was for half-acre lots, which require the transfer of rights to develop at a density lower than the project's average minimum density of five units per acre. The ability to "buy down" density is relatively unique among TDR ordinances and reflected southwest Orange County's market preference at that time for one-acre and half-acre lots. In the past several years, changing demographics, such as the aging of the baby boomers, have made a townhouse product on a 22-foot-wide lot the most desirable. While this meets the principles and goals of the Horizon West project, the TDR system is not structured to reflect this change. As a result, the TDR system is not being used to preserve upland areas, with some developers able to "reassign" TDRs on their own properties to be both sending and receiving areas. This has created more supply than demand in the TDR system, lowering the overall value of these development rights.

**Residential Density**
Providing appropriate densities in Horizon West has been made more challenging by the current residents of the community. Based on the adopted SAP for Lakeside Village and the Village of Bridgewater, certain townhouse and all apartment development currently require a special exception from the Orange County Board of Zoning Adjustment (BZA). At public hearings, these special exceptions consistently face opposition from residents of single-family houses in Horizon West and the vicinity. Also, reviewing special exceptions for density increases is not a standard role for members of the BZA, leading to some confusion and uncertainty on the planning concepts associated with the project and compatibility issues.

To address this issue, proposed changes to the village code would allow townhouse and apartment densities by right in the Village Home District of the Village of Bridgewater, although not in Lakeside Village. As Lakeside Village is at this point either mostly developed or approved for development, this new standard would not make a meaningful difference. Also, new Specific Area Plans will have to designate specific parcels for townhouses and apartments, avoiding these concerns in future villages. These village code revisions also are expected to facilitate better community design for townhouses and apartments as distinct residential categories with their own design standards.

**Urban Design**

Horizon West's architecture and urban design have had varied outcomes to date. At the time of Horizon West's approval, Orange County was only beginning to develop its current urban design expertise and staffing. As such, the project's design standards require only variations in facade and porches on 50 percent of dwelling units. Some builders have simply "flipped" the porch and the driveway to alternate sides from house to house, which does not add enough visual interest to the streetscape. Design standards should mandate more eclectic architecture and that all houses have porches, which are now part of new Horizon West design standards for subsequent development.

Paul Bergmann, FAICP, the former chief planner of urban design at Orange County, notes:

> The [villages'] land-use mix and land planning standards are giving us a very desirable new community. However, the architectural style of the first two villages varies significantly. Lakeside Village addressed architectural style and elements of each style — Colonial, Georgian, Prairie, Craftsman — and what makes each unique. The mix of styles has resulted in a very attractive development. The Village of Bridgewater focused more on the basic elements of style and not on how they come together to make a larger statement as a style of architecture. The result is a more bland development that is less exciting and less desirable as a new community. Based on this experience, we have learned to better define the overall architectural characteristics expected and how the elements come together to accomplish that goal, for the future phases of this development.

**Workforce Housing**

Workforce housing is another issue that has not been fully addressed in Horizon West. Land values in Horizon West have escalated from an average of $15,000 per acre to $100,000 per acre since the project was approved. Housing prices have followed suit. In recent months, home builders have been holding lotteries for the sale of available home sites, with entire subdivisions selling within a few weeks. Recent development approvals for the Town Center include the ability to do accessory housing units by right in residential areas, which may be a useful strategy in providing affordable units and a range of housing types. However, Orange County has not addressed these matters to date through any overall policy or ordinance provisions, and this is a key issue in ensuring Horizon West's communities and amenities, by design, are available to households of all income ranges. In mid-2006, Orange County will be conducting a Workforce Housing Summit and a task force will be formed to determine the appropriate workforce housing strategies and actions to address this pressing community issue.

**LESSONS LEARNED**

While the positive evaluations cited above are gratifying, county staff has learned many lessons over several years about implementing the 23,000-acre Horizon West project. As these lessons are already
implicit in the discussion of outcomes, they are briefly restated here.

- **New urbanism can be achieved, but ensuring diversity in implementation requires foresight.** In Horizon West, residential developments were expected to attain new urbanist principles, but in some cases, the designed standards were not tight enough. Developers complied with the requirement that 50 percent of the townhouse units have front porches by simply flipping the same home plan from front to back.

- **Minimum density specifications must account for environmental limits.** In the case of Lakeside Village, minimum densities were initially set at five units per acre but then reduced because the environmental conditions of the area prevented attainment at the density initially specified. Without the density reduction, there also would have been a loss of the required mixture of lot sizes and housing types, which promotes housing diversity and affordability.

- **School concurrency should extend beyond just the elementary school sites within neighborhoods.** Experience in Horizon West shows that while the neighborhood planning unit was achieved in large part thanks to school planning requirements, sites for middle schools and high schools were not established in advance. Having not specified funding arrangements and sites, the planning area has faced difficulty securing future school sites.

- **Maintenance of infrastructure must be addressed.** It is one thing to ensure the proper roads, trails, schools, and parks are constructed, but maintenance is another consideration altogether. In Horizon West, a special funding arrangement for the maintenance of the network of smaller trails was not contemplated in the original planning stage and thus had to be devised after some of the development already had occurred.

- **Connectivity outside — not just within — the planning area is important.** While Horizon West was conceived as early as 1995, it was not until 2001 that detailed planning took place to consider how the planning area’s development would connect with road systems in adjacent Lake County. The regional planning of transportation networks has become increasingly critical, as Lake County is now the 23rd fastest-growing county in the nation.

- **Achieving workforce housing requires additional efforts.** In Horizon West, it was not enough to establish objectives and provide for housing mixes. The market may not respond, and it cannot be depended upon to provide workforce housing.

- **NIMBY still rules.** When specific apartment sites were proposed, some residents of the villages opposed them. In Horizon West, Orange County should have insisted on the establishment of apartment sites in advance of village development. Then, the Not-In-My-Back-Yard syndrome would have less ability to derail the minimum density and workforce housing objectives of the planning area.

- **Address issues of fragmented ownership.** The implementation of specific area plans can be easily frustrated when different owners of the same specific area cannot agree. In Horizon West, a single property owner’s unwillingness to sell land for a middle school site held up development of the Village Center.

- **Avoid TDR loopholes.** Horizon West’s TDR system has not preserved upland areas as intended, because some developers have been able to "reassign" TDRs on their own properties to be both sending and receiving areas. This has created more supply than demand in the TDR system, lowering the overall value of these rights.

- **Concurrency requires multiple financing schemes.** To ensure adequate facilities, Orange County has made good use of well-known tools like development agreements, impact fees, and concurrency regulations. Nonetheless, additional financing techniques needed to be added and could not be pre-determined. These include Community Development Districts, Educational Facilities Benefit Districts, Municipal Self-Taxing Units, and other self-financing infrastructure districts.
**Alissa Barber Torres, AICP**, is Orange County’s Chief Planner of Research and Strategic Planning. She has more than 10 years of experience in comprehensive planning, land-use planning, public participation, fiscal impact analysis, and economic development in public, private, and regional planning capacities. Torres has a master's degree in Urban and Regional Planning from Florida State University and is a student in the University of Central Florida’s Texts and Technology Ph.D. program, where she is studying information design, digital media, technical communications, and technology in community planning.

**Chris Testerman, AICP**, has more than 18 years of planning experience and has served as Manager of the Orange County Planning Division since 2000. The Planning Division has 30 employees and includes development review, comprehensive planning, annexation, research and demographics, and urban design functions. Testerman graduated from Florida State University and the University of Central Florida (UCF) and has taught as an adjunct professor in UCF’s School of Public Administration. He has been the Project Manager for the Horizon West Sector Plan Area since 1995 and is considered a statewide authority on sector planning under Florida’s growth management legislation and on intergovernmental coordination.

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