

COMMENTARY AND REFERENCES BY CODE SECTION

“Commentary” provides background information and alerts you to factors that might lead to you to consider changes from the model code language. Consult these commentary sections for useful information on modifying the model code provisions and connecting them to other parts of the model code. In some cases, commentaries provide specific references as to how the code provision relates to another module or code provision in the same module. “References” are bibliographic listings of sources consulted in preparing the model code.

PART ONE: COMMENTARY ON STANDARD TEMPLATE FOR ALL ORDINANCES

No matter what or how local governments want to regulate, there are certain principles of code writing that should be followed. In order to provide guidance to model code users, the following ordinance template is provided and should be used as appropriate. Follow the ordinance template for each ordinance produced, to ensure that the ordinance produced is comprehensive from a legal standpoint and can “stand alone.” Alternatively, at minimum, provide the appropriate cross references to other adopted code provisions.

Part one is divided into the following sections. Code writers should answer the questions posed in the table below.

- §1-1 TITLE
- §1-2 PURPOSE AND INTENT
- §1-3 DEFINITIONS
- §1-4 APPLICABILITY
- §1-5 EXEMPTIONS
- §1-6 REQUIREMENTS
- §1-7 PROCEDURES
- §1-8 ADMINISTRATION
- §1-9 ENFORCEMENT AND PENALTIES
- §1-10 BOARD OF APPEALS, VARIANCES AND APPEALS
- §1-11 LEGAL STATUS PROVISIONS

Section	Title of Section	Key Question(s) Answered
§1-1	TITLE	What is the ordinance regulating?
§1-2	PURPOSE AND INTENT	What public purposes for the regulations can be articulated?
§1-3	DEFINITIONS	Which terms require definition and which are already defined in another part of the code?
§1-4	APPLICABILITY	What geographic area (jurisdiction) applies? Is it clear to what type of development/activity the regulation applies?
§1-5	EXEMPTIONS	Are there activities that should be specifically excluded (exempted) from the ordinance regulations?
§1-6	REQUIREMENTS	Is a permit required? What are the regulations? (Note: this section contains the “substantive content” of the ordinance)
§1-7	PROCEDURES	What procedures need to be articulated regarding compliance with the regulations? How do these procedures match up with other procedures already in place for related approvals? Is it clear what body or person is the decision maker? Are criteria specified for approvals and denials? Is the process fair?

§1-8	ADMINISTRATION	Who will administer the requirements and procedures? What specific authority, functions and duties need to be articulated?
§1-9	ENFORCEMENT AND PENALTIES	What constitutes a violation? Who will enforce the ordinance provisions? How will it be enforced? How are violations abated or remedied? What are the penalties for violations?
§1-10	BOARD OF APPEALS, VARIANCES AND APPEALS	Is there a need to vary the terms of the ordinance, or are they hard and fast rules where no relief should be granted? Who grants relief? Are procedures specified or is there another variance process that needs to be cross-referenced? If a person is denied a permit or is aggrieved by a permit approval, can administrative decisions be appealed? If so, to what body? If a decision is final, should an appeal to court be specified?
§1-11	LEGAL STATUS PROVISIONS	When is the ordinance to be adopted, and is there a place for the signature of the governing body and city or county clerk? When is the ordinance effective (may be different from date of adoption)? Does the ordinance contain repealer and severability provisions?

Ordinance Preamble

Ordinances typically contain a “preamble” that provides a legal justification for its provisions. Sometimes, the “whereas” parts of the preamble are not codified. The preamble provided in this model code cites major sources of authority for the adoption of zoning and land use regulations. Authority is derived from the state constitution, statutes (the Georgia Planning Act), and administrative rules of the state Departments of Community Affairs and Department of Natural Resources. All of these citations may or may not be need to be included in the ordinance, depending on its contents. The reference to the comprehensive plan is probably appropriate for all land use regulations, but it must be accurate. That is, if the proposed ordinance does not clearly implement a policy of the comprehensive plan, the local government should consider amending the comprehensive plan to identify the need and provide support for a particular ordinance. Land use regulations, whether or not they constitute “zoning ordinances” should in most cases be adopted only after following procedures pursuant to and consistent with the Zoning Procedures Law (O.C.G.A. 36-66).

[§1-4](#) Applicability

The jurisdiction or “geographic scope” of each ordinance must be clear. The geographic jurisdictions of different ordinances may differ and need to be reconciled in order to fit together.

[§1-5](#) Exemptions

Insert a listing of any other uses or activities that will be exempt from compliance with the ordinance.

[§1-6-1](#) Land Use Permit Required

This provision establishes a generic “Land Use Permit” in place of a building permit, development permit or land disturbance permit, and certificate of occupancy. Local governments that have adopted building codes could substitute the terms “building permit” and “certificate of occupancy” for “land use permit.” Local governments that have established

separate “land disturbance” or “land development” permits could also rewrite this section to reflect existing permitting requirements. Even with such building, certificate of occupancy, and land disturbance or development permits in place, a local government could consider requiring a land use permit anyway, to ensure that all activities are covered under a permitting process, and to otherwise ensure enforcement of the ordinance lies with the Land Use Officer. Also, as noted by Aguar (1979), a requirement for a land use permit helps to separate land use from the permit used in enforcing the building code or other construction codes. However, these advantages should be weighed against the need to “streamline” permitting processes.

Local governments should also carefully consider how the “land use permit” required by this section relates to a land disturbance permit required to be issued for purposes of soil erosion and sedimentation control (see §3-1). If the land use permit is the same as the land disturbance permit as described in §3-1, it should be noted that land disturbance permits are issued by the Georgia Department of Natural Resources (DNR) rather than the local government, unless the local government has been certified by the DNR to issue those permits.

§1-8 Administration

The Land Use Officer or enforcement officer could have other titles, such as “city clerk,” “planner,” “building official,” “building inspector,” “code enforcement officer,” and the like. For purposes of convenience, this model code uses the term “Land Use Officer.” The code should specifically define who the Land Use Officer is (See §1-3, Definitions), or alternatively, use a different term such as “building official.” To err on the side of caution, the local government might consider specifically designating, by resolution or formal vote reflected in the minutes of a public meeting, the appropriate staff person as the Land Use Officer. Such action will help to avoid a claim that a given staff person is not acting pursuant to specific authority provided by the local government. This section also provides authority of the administrative official to prepare administrative forms and the like, an authorization that is often overlooked in other ordinances.

§1-9 Enforcement and Penalties

These provisions have been rewritten from the original version of this model code; revisions are based generally on model ordinances of the Metropolitan North Georgia Water Planning District.

§1-9-8 Citation

The statutory provisions relating to use of citations by counties are found at O.C.G.A. §15-10-62.

§1-10 Appeals

A Board of Appeals needs to be established to hear appeals of administrative decisions and interpretations. Alternatively, the Local Governing Body could serve as the body with jurisdictions for appeals. If the local government does not want a board of appeals or wants to further simplify the ordinance, it may appoint itself, i.e., the Board of Commissioners or Mayor and City Council, to decide appeals of decisions by the Land Use Officer. However, because legislative decisions of the governing body and quasi-judicial proceedings appeals board are usually separate, and since governing bodies do not typically have experience making decisions under quasi-judicial proceedings, it is recommended that appeals go to a separate Board of Appeals, or alternatively, to a Hearing Examiner (See §10-3).

§1-10-9 Public Hearing Procedures on Variances and Appeals

Commentary by Legal Counsel: Legal counsel advises that the procedures for public legislative hearings by the local government or planning commission should not apply to the Board of Appeals, which is conducting an administrative hearing rather than a legislative hearing. The same is true if the planning commission, instead of the Board of Appeals, is conducting an administrative hearing, such as a variance hearing. Legal Counsel recommends that the ordinance provide that the Board of Appeals or the Planning Commission, as the case may be, has the authority to establish their own procedures for conducting a hearing. This can be done because the adoption of rules for administrative hearings is not required to follow the rigorous procedures under the Zoning Procedures Act.

§1-11-4 Codification

The “codification” provision (see §1-11-4) allows the local government to bring the new ordinance into its code, in a different format, without the need for readopting it.

§1-11-5 Adoption and Effective Date

Sometimes a local government may want to establish an effective date that is different from the date of adoption. That is, a local government may not want to make the ordinance effective immediately. There may be some risks involved in establishing an effective date that is not immediate, because it provides time for persons to establish uses and engage in practices that might not be consistent with the new ordinance. In the event the effective date is different from the date of adoption, the ordinance should specify both dates.

PART TWO: REGULATIONS IMPLEMENTING RULES FOR ENVIRONMENTAL PLANNING CRITERIA

§2-1 Groundwater Recharge Areas

This section is specifically designed to implement the state Department of Natural Resources' Environmental Planning Criteria (Rule 391-3-16-.02) (also known as "Part V" standards) relative to groundwater recharge areas. If the local government does not have any significant recharge areas as shown on Hydrologic Atlas 18 (Georgia Geologic Survey 1989), it does not need to adopt this ordinance section. However, local jurisdictions that rely on groundwater supplies for domestic and public water supplies should consider the merits of applying the standards established in this ordinance section.

The State of Georgia has established criteria for the protection of groundwater recharge areas. Groundwater recharge areas provide the mechanism for rainfall runoff to enter the water table, providing water supply resources not only for domestic water supplies, but also public well systems. While some rainfall runoff flows into creeks, streams, rivers and lakes, a large portion of the water seeps downward through the soil into the saturated zone, or water table. Any materials or chemicals contacting the water as it travels downward through the soil can be carried into the water table.

For a more detailed version of a groundwater recharge area ordinance, see the City of Montezuma, Georgia, Ordinance #311:

<http://www.montezuma-ga.org/ordinances/ORD311.HTM>.

For more detailed information on groundwater resources in Georgia, see "Ground-Water Conditions In Georgia," 1999, By Alan M. Cressler (U.S. Geological Survey Open-File Report 00-151): <http://ga.water.usgs.gov/publications/ofr00-151/index.html>. Additional information can be obtained from the U.S. Geological Survey, Ground-Water Resources Program, 2001, U.S. Geological Survey Fact Sheet 056-01, June 2001: <http://water.usgs.gov/oqw/pubs/fs01056/>.

§2-1-3 Definitions

Hydrologic Atlas 20 refers to average, but the Part V Environmental Criteria refer to "medium." Therefore, the model code language includes both terms (i.e., medium and average) in this section and others in this module that refer to that provision.

§2-1-4 and §2-1-5 Adoption of Hydrologic Atlases

To obtain these hydrologic atlases, contact the Georgia Geologic Survey Room 400, 19 Martin Luther King Jr. Dr. Atlanta, Georgia 30334. Phone: 404.656.3214. While local governments should probably adopt Hydrologic Atlas 18 and Hydrologic Atlas 20 by reference in their ordinance, it must be noted that the scales of the atlases make it difficult to apply to site-specific conditions. The city or county comprehensive plan should provide a map of significant recharge areas and pollution susceptibility that can be more readily applied in the development review process. It is advisable to transfer information on Hydrologic Atlas 18 and Hydrologic Atlas 20 to a single map that has a scale of no smaller than 1 inch = 2000 feet, so that their applicability can be determined by the Land Use Officer. Digital manipulation of Hydrologic Atlas 18 is now possible; it is available as an Arcinfo database from the Georgia Environmental Protection Division's web page (www.georgianet.org/dnr/environ). If the city or county comprehensive plan

has transferred the information from Hydrologic Atlas 18 and Hydrologic Atlas 20 onto a base map of the city or county, or if the city or county uses the ArcInfo database to construct its own map, then such map should be adopted by reference in addition to the adoption by reference of Hydrologic Atlas 18 and Hydrologic Atlas 20. The locally produced map may be sufficient for implementation, but adoption of the official state maps would strengthen the legal standing of the ordinance.

§2-1-9 Minimum Lot Size

The Environmental Planning Criteria only specify these requirements for “homes.” The first sentence in this section of the model code also extends the provisions to “land uses,” thus giving the provision broader applicability. Local governments that only want to comply with the minimum requirements may delete “or land uses” from the first sentence of this section.

This code section recognizes vested rights of prior approved lots. But keep in mind, in Georgia, although approval may not yet be obtained, a vested right accrues where the property owner has applied for lot approval, such as a subdivision, where the requested lots are allowed at the time of the application.

§2-2 Water Supply Watersheds

The State of Georgia has promulgated standards for the protection of water supply watersheds and water supply reservoirs. This ordinance section is specifically designed to implement the state Department of Natural Resources’ Environmental Planning Criteria (Rule 391-3-16-01) (also known as “Part V” standards) relative to water supply watersheds and water supply reservoirs. If the local government does not have any water supply watersheds or water supply reservoirs within its jurisdiction, then it does not need to adopt this ordinance section.

§2-2-3 Definitions

Local Governments that have prepared a Comprehensive Plan are required to delineate existing and future water supply watersheds, therefore, the information needed to prepare a watershed protection map should already be available. This information should be compared to data supplied by the State’s Regional Development Centers. This data includes water supply intake points mapped in Geographic Information Systems (GIS) and delineated water supply watersheds.

§2-2-5 Applicability

If the local jurisdiction does not have a large water supply watershed, a small watershed, or a water supply reservoir within its jurisdiction, then this section needs to be modified to delete references to those provisions not applicable in the local jurisdiction. However, it must be noted that the water supply watershed protection requirements apply even if the local government does not own a water intake or reservoir, or if the intake or reservoir is not located in the subject local jurisdiction. For instance, a water supply reservoir requiring protection may be owned by some entity other than the local government, but it still requires protection under the state environmental planning criteria. Also, a water intake may be located outside of the city or county, but the watershed extends into the subject local jurisdiction. In these cases, protection by the subject local government is required. All local governments with jurisdiction must protect those watersheds and reservoirs, regardless of ownership or location of the water intake point or reservoir.

§2-2-9 Requirements for Small Water Supply Watersheds

The environmental planning criteria apply to the entire length of a perennial stream that is in a local government's jurisdiction, for buffers and setbacks, with other regulations governing the entire water supply watershed. A local government is only responsible for implementing these regulations for areas within its jurisdiction.

If a small water supply watershed lies within more than one jurisdiction, all of the local governments within the boundaries of the watershed may agree among themselves on an allocation program for impervious surfaces that yields a net 25 percent limitation throughout the watershed. This approach would require all of the local governments within the watershed to reach a formal impervious surface allocation agreement, and such an agreement would have to be reflected in the comprehensive plan of each participating local government. As another alternative, when more than one local government has jurisdiction over a small water supply watershed, each local government may agree to limit development within their portion of the watershed to 25 percent impervious surfaces. A third alternative is for the local government to limit its portion of the small water supply watershed to 25 percent impervious surfaces but then establish impervious surface ratios for individual land uses (e.g., 15 percent for single family residential, 35 percent for commercial, etc.) which collectively will achieve the 25% impervious limitation in their jurisdiction.

§2-2-10 Water Supply Reservoirs

The owner of a water supply reservoir is required by the Rules for Environmental Planning Criteria to develop a reservoir management plan for approval of the DNR. A reservoir management plan may have been prepared as a part of the local jurisdiction's Comprehensive Plan, or may have been prepared in order for the local government to obtain a DNR water withdrawal permit. Local governments can adopt the reservoir management plan by reference (as in the provision above), incorporate the specific regulatory provisions of the reservoir management plan into this section, or provide as an addendum to this ordinance.

§2-3 Wetlands

Local government comprehensive plans should acknowledge the importance of wetlands. To meet minimum standards, local comprehensive plans need to contain an inventory of wetlands. The wetlands permit program under Section 404 of the Clean Water Act provides a federal permit process that affords some protection to wetlands. Most activities in wetlands will require a Section 404 permit from the U.S. Army Corps of Engineers. If wetlands are altered or degraded, mitigation is often required as a condition of a Section 404 Permit. Alterations or degradations of wetlands should be avoided unless it can be demonstrated that there will be no long-term adverse impacts or net loss of wetlands.

Given the existing level of protection provided by federal wetlands regulations, local governments may elect not to regulate locally for the protection of wetlands. However, the opposite perspective is equally valid--that federal protection of wetlands may be insufficient.

The state's Department of Natural Resources has adopted Environmental Planning Criteria (also known as "Part V" standards) (Rule 391-3-16-.03) relative to wetlands protection. The criteria do not specify regulations that must be implemented by local government, but it is prudent, at a minimum, to coordinate the federal wetlands permitting process with the local

development process, and to also consider local protection of wetlands. Any local government action under this ordinance does not relieve any landowner from federal or state permitting requirements.

Wetlands provide very valuable and frequently overlooked functions in the ecosystem, which includes storage of flood waters, improving water quality by filtering out pollutants, and providing habitat to thousands of wildlife species. Therefore, the protection of wetlands is critical if we are to avoid flood damages, enjoy a good quality water supply, and ensure a healthy environment. The two greatest threats to wetlands include: 1) filling and subsequent conversion to other uses; and 2) damage from unchecked erosion and sedimentation.

§2-3-3 Definitions

If the local government's wetlands map, as found in the Comprehensive Plan, is sufficiently detailed (e.g., based on special studies or a mapping of hydric soils), it might be used as the Generalized Wetlands Map. The NWI maps referenced in the definition above are sufficiently detailed and can be used in the development review process. Note that the generalized wetland map does not necessarily represent the boundaries of jurisdictional wetlands within the jurisdiction and cannot serve as a substitute for a delineation of wetland boundaries by the U.S. Army Corps of Engineers, as required by Section 404 of the Clean Water Act, as amended.

National Wetlands Inventory (NWI) maps are available in both digital (computer) and paper format. The digital maps are available on the World Wide Web at www.nwi.fws.gov. Some areas of the state have been digitally mapped and are available for downloading. To obtain paper copies of NWI maps, contact either: (1) Division of Natural Resources, Georgia Natural Heritage Program, 2117 U.S. Highway 278 SE, Social Circle, Georgia 30025, Phone: 770.918.6411; or (2) Georgia Geologic Survey Room 4063 19 Martin Luther King Jr. Dr. SW, Atlanta, GA 30334-9004, Phone (404) 657-6127. Local governments can also contact their Regional Development Center for assistance.

The U.S. Army Corps of Engineers' definition is quite restrictive; in order for an area to qualify as a "wetland" it requires that all three wetland parameters be present. Although the Corps' definition is the most common definition used, it may result in the City or County losing some valuable wetlands. As an alternative to deferring to the Corps' definition, a local government might require an environmental impact review (see Section 3-5 of this model code) for proposed developments including areas shown on the NWI maps as wetlands. The U.S. Fish and Wildlife Service's definition of wetland requires just one of the three wetland parameters to be present and would afford a higher degree of wetlands protection.

For a more detailed freshwater wetlands ordinance, see Yorktown, New York's ordinance as published in Michael A. Mantell, Stephen F. Harper, and Luther Propst, *Resource Guide for Creating Successful Communities* (Washington, DC: Island Press, 1990).

§2-3-7 Jurisdictional Wetland Determination Required

Local governments must compare projects to their generalized wetlands maps to see if particular projects appear to be near or within a wetland. If they are, then the developer needs to consult with the U.S. Army Corps of Engineers before issuance of any local permit. If there are no jurisdictional wetlands on site, the local government permitting process can proceed. If there are jurisdictional wetlands on the site that will be disturbed by the proposed development, the code section requires that the applicant first obtain a wetlands permit or permission from the

U.S. Army Corps of Engineers. The 50 feet, referenced in the above section, is considered an absolute minimum. Some local governments use 100-200 feet as a measurement to err on the safe side.

§2-3-8 Permitted Uses

The activities listed in this section are exempted from Section 404 regulations, provided they do not have impacts on a navigable waterway that would necessitate acquisition of an individual 404 permit. However, under Section 10 of the Rivers and Harbors Act, a permit may be required in some circumstances. Some activities that destroy or degrade wetlands, but are not regulated by Section 404, including timber harvesting and certain agricultural activities, are listed as possible permitted uses in the Environmental Planning Criteria for Wetlands Protection.

§2-4 Protected River Corridors

The State of Georgia has promulgated standards for the protection of river corridors meeting a minimum threshold for water flow (400 cubic feet per second or more). This ordinance is specifically designed to implement the state Department of Natural Resources' Environmental Planning Criteria for Protected River Corridors. If the local government does not have any protected river corridors within its jurisdiction, then it does not need to adopt this ordinance section.

§2-4-3 Definitions

Local governments may choose to apply the minimum criteria for river corridor protection to other sections and lengths of rivers that are not designated by the Georgia DNR. Numerous local governments have applied river corridor protection controls along the entire length of the river corridor, not just along the corridors designated by the DNR. Some local governments also extend the buffer required to the community's identified 100- or 500-year floodplains, not simply beyond the bank of the river. However, such extension goes beyond minimum state criteria. No matter what river segments are identified, or whether wider than minimum buffers are required, river corridor policy should be fully described in the comprehensive plan in order to provide additional legal rationale for any regulatory efforts.

§2-4-4 Applicability

In the spirit of simplifying implementation by local governments, this model code module does not require a map of protected rivers, and the Rules for Environmental Planning Criteria do not require adoption of a map. However, local governments may at their discretion adopt a protected rivers map that illustrates river corridors on a map.

§2-4-10 Uses Permitted Within Required Buffers

The Rules state, "c) Land uses existing prior to the promulgation of a River Corridor Protection Plan means any land use or land-disturbing activity, including all human endeavors directly associated with such use or activity, which, prior to the promulgation of the River Corridor Protection Plan falls within one of the following categories:

- (a) Is complete;
- (b) Is under construction;
- (c) Is fully approved by the governing authority;

- (d) All materials have been submitted for approval by the governing authority; or
- (e) Is zoned for such use and expenditures in excess of \$2,500.00 have been made in preparation for construction in accordance with such zoning.”

The state environmental planning criteria for river corridors specify a minimum lot size (two acres), but no minimum lot width. Local governments might want to set a minimum lot width (e.g., 200 feet) to supplement the state standards. Otherwise, very narrow two-acre lots could be created within river corridors.

§2-5 Mountain Protection

This ordinance section is specifically designed to implement the state Department of Natural Resources’ criteria relative to mountain protection pursuant to the Mountain and River Corridor Protection Act. A protected mountain includes all land area 2,200 feet or more above mean sea level, that has a percentage slope of 25 percent or greater for at least 500 feet, horizontally. It includes the crests, summits, and ridge tops that lie at elevations higher than any such area. This module is written for cities and counties in north Georgia with protected mountains within their jurisdiction. If your jurisdiction has no protected mountains as defined by state law and state administrative rules, then it is not necessary to adopt this code section.

§2-5-3 Adoption of Protected Mountains Map by Reference

The city or county comprehensive plan should, per state administrative rules, provide a map of protected mountains. Such map might be detailed enough to be applied in the development review process. If not, local governments will need to create a protected mountains map. To create a protected mountains map, it is required that either U.S.G.S. 7.5 quadrangle maps or a plat map be used as a base. These quadrangle maps can be obtained from the Georgia Geologic Survey, Room 400, 19 Martin Luther King Jr. Drive, Atlanta, Georgia 30334. Phone: (404) 656-3214. Local governments should consult their RDC for technical assistance with regard to preparing protected mountains maps.

§2-5-6 Development Regulations

Vested rights accrue at the time of application, not approval.

Height exemptions mirror the state’s mountain protection criteria. Local governments may establish height limits on those structures exempted in this ordinance.

PART THREE: ENVIRONMENTAL PROTECTION

§3-2 Grading

All grading (land-disturbing activity) is governed by the Erosion and Sedimentation Act made applicable locally by adopting the previous module (See §3-1). This module may not be needed by most local governments since the best management practices required under Section 3-1-4.2 address virtually all major aspects of grading. However, this module provides greater specificity and additional regulations that may be appropriate in some jurisdictions. Local governments should weigh whether these additional provisions are needed, or whether a “minimalist” approach to the regulation of land-disturbing activities is desired. If a minimal approach is desired, then adopting §3-1 may be sufficient.

References: Gwinnett County, Georgia, Development Regulations. For a straightforward, general discussion of earthwork considerations, see: Lynch, Kevin, and Gary Hack. 1984. *Site Planning*. Cambridge: MIT Press. For formulas, calculations, and other technical, engineering-related aspects of grading and earthwork, see: Brewer, William E., and Charles P. Alter. 1988. *The Complete Manual of Land Planning and Development*. Englewood Cliffs, NJ: Prentice-Hall; and Colley, B.C. 1986. *Practical Manual of Site Development*. New York: McGraw-Hill.

§3-2-3 Grading Permit Required

This module specifies a “grading” permit as separate and distinct from a “land-disturbance” or “development” permit required otherwise by this model code. Some local governments do have both a grading permit requirement and a land-disturbance permit requirement, so as to distinguish between the two required permitting requirements. However, if this module is adopted, consideration should be given to merging the grading and development/ land-disturbance permit processes.

Local governments may wish to set the threshold of 50 cubic yards of grading to trigger the requirement for a grading permit. Review of grading plans is primarily the purview of the civil engineer, as it involves predominantly engineering considerations. However, planners usually review grading plans for non-engineering considerations, such as the aesthetics of the landscape, consistency with Comprehensive Plan policies, and protection of environmentally sensitive areas. This ordinance provides the Land Use Officer with final authority over the approval of grading activities, even though the applicant for a grading permit would work much closer with the local government engineer in the review process. This is done to keep all permits regarding land use activities under the authority of one person. However, depending on local staffing arrangements, the responsibility for final approval of grading plans might rest with the local government engineer rather than the Land Use Officer. If so, approval by the engineer needs to, at minimum, be “signed off on” by the Land Use Officer. However, most small rural local governments do not have an engineer on staff. It must be emphasized here that local governments need to have an engineer on staff or an arrangement with a consulting engineer to adequately administer and enforce grading and land-disturbance regulations.

§3-2-9 Grading on Steep Slopes

Some communities will not have steep slopes as defined here, and thus could delete this provision. It is intended to apply to communities that have hillside or mountain topography and that wish to avoid clearcutting of steep slopes, which can damage the natural environment and

destroy scenic views. The 15 percent allowance for cut and fill on steep slopes should normally be adequate to allow a single-family residence and perhaps other types of development to occur on steep slopes.

§3-3 Flood Damage Prevention

This module has been completely revised from the original version published in 2002. This module is a reformatted version of the model ordinance issued by the Metropolitan North Georgia Water Planning District in 2006.

It is important to note that the Water Planning District provides a more restrictive set of flood plain management regulations for its jurisdiction than is necessary for cities and counties lying outside the District. In particular, this module requires mapping of “future” floodplains, something that rural local governments are unlikely to do, since mapping the future floodplains based on the comprehensive plan’s land use plan map is expensive, and since it is not a requirement outside the District. Local governments not subject to the Water Planning District’s mandates should delete references to “future” floodplains or at least add a statement that such provisions will apply if designated.

§3-4 Hillside and Ridgeline Protection

Robert Olshansky (1996), who has analyzed nearly 200 hillside development ordinances, comments that “there is no ‘best’ or ‘model’ set of regulations that can be recommended” for hillside development. Nonetheless, this module is written for local governments with steep slopes and geologically hazardous areas and with concerns that intensive hillside development may permanently change the character of the community. This module provides a recommended set of hillside development regulations that can be used or adapted for use by local governments.

This module should not be confused with Section 2-5 of this Model Land Use Management Code, which pertains to “protected mountains.” This hillside development module can supplement regulations adopted by local governments with protected mountains per criteria of the state Department of Natural Resources, Environmental Protection Division.

§3-4-2 Findings

Detailed “findings” based on the work of Olshansky (1996) are provided here, because they provide numerous rationales for adopting hillside development regulations. Because hillside development regulations can pose substantial restrictions on private property rights, they are more susceptible to “takings” claims (regulatory takings, or the taking of private property without just compensation in violation of the 5th Amendment of the U. S. Constitution). Providing this rationale in the ordinance itself supplies a partial defense of the regulations in the event of a court challenge.

There are a variety of ways that hillside development regulations can apply. They can apply to: Any site that exceeds a slope of a certain threshold (e.g., 25%); Areas of concern can be mapped as an overlay district; Based on hazard areas or some other feature; or based on elevation, such as the mountain protection criteria of the State Department of Natural Resources, Environmental Protection Division.

§3-4-7 General Provisions

This provision on topographic data is necessary in the event that existing topographic data are insufficient. U.S.G.S. quadrangle maps in steeply sloping areas usually have contour intervals of 20 feet, sometimes more, which may not offer sufficient detail in some instances. Requiring topographic surveys may be the only recourse; however, one should keep in mind the expense to developers and builders involved in producing a site-specific topographic survey. Costs increase substantially as the required contour interval decreases. For example, a survey with two-foot contours would be substantially more expensive than one with ten-foot contours. Given the expense, this Code provision allows areas not proposed for development to be excluded and establishes five-foot intervals as the basis for surveys, with an option for greater intervals, if justified.

§3-4-16.8 Colors

It may be difficult for an administrative official such as the Land Use Officer to enforce and interpret a rather vague provision on color, although having an approved color palette helps to reduce vagueness. The appeal procedure contained in this ordinance may also provide adequate relief of a “bad” decision on the part of the Land Use Officer in denying a particular color proposal. Local governments can further reduce the discretion of the Land Use Officer by establishing a review board to make such “subjective” decisions. For instance, see the section of this Model Land Use Management Code that establishes a design review board (See §9-2) and process that might be adopted and referred to here for this purpose.

§3-4-17 Fire Protection

These provisions are intended to address the risk of damage of hillside residences due to forest fires. Local governments should not include this provision unless there is significant risk of forest fires spreading to hillside residences. If adequate fire protection is available, this Code section should not be needed. Consult the fire marshal and/or local fire chief before proceeding with these provisions. Also note that providing a clear zone is also inherently incompatible with other provisions of this Code, which are intended generally to shield hillside residences from view with vegetation.

§3-4 References

City of Ashland, Oregon, Municipal Code. Hillside Development.

DeChiara, Joseph, and Lee E. Koppelman. 1984. *Time-Saver Standards for Site Planning*. New York: McGraw-Hill.

Olshansky, Robert B. 1998. Regulation of Hillside Development in the United States. *Environmental Management* 22, 3: 383.

Olshansky, Robert B. 1996. *Planning for Hillside Development*. Planning Advisory Service Report No. 466. Chicago: American Planning Association.

Brandes, Donald and Michael Luzier. 1991. *Developing Difficult Sites: Solutions for Developers and Builders*, p. 48, BuilderBooks and National Association of Home Builders, Washington, DC

Thorow, Charles, William Toner, and Duncan Erley. 1975. *Performance Controls for Sensitive Lands: A Practical Guide for Local Administrators*. Planning Advisory Service Report Nos. 307, 308. Chicago: American Society of Planning Officials.

§3-5 Environmental Impact Review

Local governments in Georgia have generally not required developers to identify and mitigate the impacts of development on the environment. Other states, such as Washington and California, have state environmental policy or quality acts that require local governments to review private development proposals for environmental impacts and to mitigate those impacts if found to be significant. Such impacts may include, but are not limited to: degradation of sensitive environmental habitats and wildlife; air pollution; problems with circulation and mobility; water drainage and quality problems; the cumulative increase in noise; alteration of natural topography and views; land use incompatibility; and burdens from increased demands for public and municipal services. Without a formal environmental assessment requirement that considers the impacts of development, local governments do not know whether the combined impacts of several developments will significantly affect the environment.

With this approach, a local government would adopt an ordinance requiring environmental impact review. This module provides an environmental impact review process based largely on the California Environmental Quality Act (CEQA), but in a much simplified form. Adoption of this module will allow local governmental agencies to consider the environmental consequences of projects via the preparation of a document called an environmental checklist. The environmental checklist provides local decision-makers with information and an analysis of environmental effects of the proposed project and, when those effects are deemed significant, it suggests possible ways to lessen the potential impacts and/or avoid damage through mitigation measures. The environmental checklist must also disclose significant environmental impacts that cannot be avoided or mitigated and significant cumulative impacts of all past, present and reasonably foreseeable future projects.

The first step of the environmental review process is for the proposed developer to prepare and submit an environmental checklist of factors that will be potentially affected by the proposed development. For each item on the environmental checklist, a determination is made whether impacts will occur. All determinations are supported by a brief explanation of the conditions and findings that contribute to such determinations. Preliminary studies sufficient to ascertain impacts may be required to support the analysis and findings. If it is found that one or more significant impacts will occur, the development applicant must propose mitigation. The local government (Land Use Officer) makes a determination whether all significant impacts have been adequately mitigated and if additional assessments are required (such as a wellhead protection plan). Ultimately, the environmental impact review process is a vehicle for local decision-makers to decide if a proposed project should be authorized or whether the impacts cannot be mitigated and development should not proceed.

Legal Counsel advises that state law for some projects, which meet the threshold under this ordinance, may preempt environmental assessment by the local government. For example, the Georgia Department of Natural Resources undertakes environmental assessments for mining and landfills, Environmental Protection Division, as part of its permitting process. Although zoning approval of the local government is required by the regulations, this environmental impact review ordinance may apply with any zoning. Therefore, this module probably should apply only to those projects for which a state permit is not required.

§3-5-2 Purpose and Intent

A recommended environmental checklist format is attached, which should be adopted by reference. The recommended checklist may be modified as necessary to reflect environmental conditions unique to the particular jurisdiction.

§3-5-4 Thresholds of Applicability and Exemption

Examples of development projects where environmental impact analyses have been applied include shopping centers, industrial parks, planned unit developments, area redevelopment, industrial facilities, power plants, and public projects such as highways, airports, dams, and water and sewerage systems. While most environmental impact analyses have focused on larger-scale projects, especially those in urban areas, environmental impact analysis requirements are increasingly being applied to smaller development projects (Burchell et al. 1994). The thresholds recommended in this ordinance would apply the environmental impact review requirements to relatively small developments. Local governments can establish the thresholds of applicability at any level they find appropriate.

§3-5-7 Application Requirements

The requirements of this ordinance need to be tied to the local government's various development approval processes, if they exist. If another type of application is required, such as a subdivision plat, land use permit, conditional use, etc., then the environmental review process should be incorporated into the first application process encountered by the applicant or the first application necessary for project approval. If the local government requires no such development applications, then the environmental review process may occur on its own separate track.

§3-5-9 Determination by Land Use Officer

There is substantial discretion on the part of the Land Use Officer in exercising the powers to make determinations of impact. The Land Use Officer must be fair and impartial, and also must be educated on multiple dimensions of impact analysis. The environmental impact review determination needs to be done administratively rather than by a planning commission or Local Governing Body, however. One alternative, if local expertise is not available on staff, would be to appoint a qualified hearings examiner to make the impact determinations.

§3-5 Reference

Burchell, Robert W., et al. 1994. *The Development Impact Assessment Handbook*. Washington, DC: Urban Land Institute.

§4-1 Subdivisions and Land Development

Without subdivision regulations, a community may have tracts of land sold without provision for water, sewage disposal, or even access. It may without such regulations have lots that cannot be developed. Without land subdivision regulations, land records are likely to be inadequate. There is probably no other regulation more important than subdivision regulations, because the resulting designs and patterns of land subdivision establish the geography and geometry of the community and in turn influence the entire character of the city or county. Once land has been cut up into streets, blocks, and lots, the pattern is very difficult to alter. The subdivision and development of land affects the welfare of the entire community in so many ways that it cannot be entrusted to haphazard subdivision design.

This ordinance provides for the regulation of subdivision plats and land developments. The ordinance also includes improvement requirements (Note: the initial version of the model code has a separate section for such requirements, but they have been integrated into this Code Section). Definitions have been expanded considerably compared to the initial version of this code module.

§4-1-3 Definition of Intra-Family Land Transfer

This definition is included for rural counties where there is concern about the affect of subdivision requirements on owners of large parcels who want to deed lots to their children or immediate family without complying with subdivision requirements. Intra-family land transfers are defined here and also exempted from the platting process (i.e., approval by the Planning Commission), but each lot must otherwise meet the requirements of the subdivision and land development ordinance.

§4-1-3 Definition of Lot of Record

The definition of “lot of record” has a blank for a date. Local governments should research and insert the date they first required plats to be recorded by ordinance. If no such regulations existed prior to the adoption of the subject ordinance, that date should correspond with the effective date of the ordinance, as adopted.

§4-1-4.2 Delegation of Powers to Planning Commission

Some cities and counties require the governing body (County Board of Commissioners or Mayor and City Council) to approve preliminary plats and final plats of subdivisions. That is a local choice. This model ordinance provides for the planning commission to approve final plats. Final platting is an administrative procedure approved by the Land Use Officer.

§4-1-4.4 Delegation of Powers to County [City] Engineer

The review and approval of subdivision and land development improvements is primarily the purview of the local government engineer. The land use officer also has a significant role in the review of plans and plats and the application of various standards. The construction specifications of public improvements go far beyond the specifics identified in this module. For this reason, local governments should authorize the local government engineer to adopt standard drawings and specifications which can be published in a technical document. The improvement requirements specified here should be sufficient to identify the more important

construction specifications, although local governments are strongly encouraged to have the local engineering department (or consulting engineer) adopt more specific and more comprehensive standards for public and private improvements. If the rural local government does not have a civil engineer on staff, it is strongly advised that engineering standards be prepared and implemented by a professional engineer under a consulting arrangement.

It is recognized that rural cities and counties may not have an engineer on staff. Furthermore, some of the provisions of administering this ordinance have been assigned to the Land Use Officer, in recognition of that fact. Without an engineer, however, the Land Use Officer may not have sufficient engineering expertise to administer this ordinance. In order to adequately administer this ordinance, it is strongly recommended that the local government hire an engineer, either on staff or in a consulting capacity, to administer certain aspects of the subdivision and land development process.

§4-1-5.3 Subdivision of Land

It is not uncommon for persons unfamiliar with the subdivision process to divide land by virtue of a metes and bounds legal description, with or without survey, and without going through the land subdivision process which requires public review and approval of a plat. This provision specifically makes such a practice unlawful.

§4-1-5.4 Development or Improvement of Land

This ordinance applies to more than just land subdivisions. Any development involving the improvement of land comes under the terms of this ordinance, even if most of its provisions apply only to the subdivision platting procedure.

§4-1-5.9 Appeals

An appeal procedure is strongly advised. Local governments adopting this ordinance also need to adopt §1-10 of this model code. For local governments that do not wish to establish a Board of Appeals, the ordinance could be modified so that any appeals go to the local governing body rather than the Board of Appeals.

§4-1-6 Exemptions From Plat Approval

The actions exempted here mean that the applicant does not have to file a subdivision plat for approval. However, such exemptions from plat approval do not relieve them from land development requirements established in this ordinance.

4§-1-10.1 Natural Features and Assets

To adequately implement this provision, local governments might consider strengthening the minimum submittal requirements for preliminary plats as specified in this module (see Table 4-1). For instance, it might wish to require the submittal of aerial photographs, photographs of the site, or other information that will convey existing conditions and the need for preserving the attractiveness of natural features.

§4-1-10.6 Lot Area and §4-1-10.7 Lot Width

This subsection and the following (Lot Width) make reference to land use intensity districts. If the local government does not have land use intensity or zoning districts that regulation lot area and lot width, and may delete the lot area and lot width subsections. Also, local governments may make reference to Health Department requirements that specify lot area minimums for use of on-site wells and septic tanks.

§4-1-13.3 Preliminary Plat Application and Specifications

Subdivision regulations typically contain provisions for land dedications and reservations. An earlier (initial) version of this model code contained a section regarding public use reservations and dedications, but it was omitted on the recommendation of legal counsel. There was concern about the possibility of such a provision resulting in a taking of private property without just compensation.

§4-1-14.6 Improvements to Abutting Land

The local government should seek the advice of the county or city attorney in enacting this provision. It can be viewed as bordering on the taking of private property without just compensation. One view holds that the property abutting the subdivision or land development site is the equivalent of “on-site” and therefore improvement requirements, including right-of-way dedications, are valid. On the other hand, if the road immediately off-site is proposed to be improved as a “system improvement,” then requiring that the subdivider or land developer improve the abutting road could run afoul of the Development Impact Fee Act of 1990 unless impact fee credits are provided to the subdivider or land developer.

§4-1-20.5 Minimum Street Right-Of-Way and Pavement Widths

The standard for a local street with curb and gutter is considered the minimum necessary. Some communities require larger pavement widths and right-of-way widths for local streets. When curb and gutter is not required, the right-of-way width needs to be larger (60' rather than 50') to accommodate drainage ditches at the appropriate slopes.

This module contemplates mostly municipal (more urban and suburban than rural) applications. However, a rural street cross-section is provided. In addition, rural counties often do not require curb and gutter and wider pavements. The table below provides an alternative that may be more appropriate for rural counties:

Street Right-of-Way, Pavement, and Improvement Requirements

Street Type	Service Standard	Minimum Right-Of-Way Width (Feet)	Minimum Pavement Width (Feet)	Drainage	Sidewalk
Lane	Residential: Maximum of 20 dwellings (Footnote 1)	40	20	As required by Land Use Officer	Not Required
Local street (rural cross-section)	Rural Residential	60	24	Drainage ditches on both sides	May be required.
Local street with curb and gutter (urban cross-section)	Urban or Suburban Residential	50	27	Curb and Gutter	Required on one side
Collector street	Non-residential subdivision; primary subdivision access with 50 or more lots	80	32	Curb and Gutter	Required on both sides
Major arterial street	All uses	Per transportation element of comprehensive plan	Per transportation element of comprehensive plan	Curb and Gutter	Required on both sides

Footnote 1. A lane may be approved by the Planning Commission in mountain and hillside protection areas to reduce the amount of clearing and land disturbance.

§4-1-26 Private Streets

Many communities do not specifically address private streets in their land use management codes. This section addresses private streets in major subdivisions. Private streets, when they provide access to multiple lots, raise many questions about the adequacy of public access and the provision of future public utilities along said private streets. Because of potential problems with private streets, such as determining an equitable distribution of maintenance costs among property owners served by private roads, this section provides that the local governing body must approve private streets in major subdivisions. Private streets should at minimum meet the standards for public streets---otherwise, land developers have an incentive to provide private rather than public streets.

§4-1-32.1 Fees

Fees should be established at a level that fully or at least partially offset the costs of administration. While no fee schedule is provided in the ordinance itself, minimums are recommended below (higher fees can be easily justified):

Preliminary Plat:	\$100 plus \$5 per lot.
Final Plat:	\$100 plus \$5 per lot, plus \$8 per page recorded.
Development Plan:	\$100 plus soil erosion control fees.
Variance:	\$100.
Administrative Appeal:	\$100.

§4-2 Alternative Street And Pedestrian System Standards

OVERVIEW

Why Alternative Street Standards are Needed
Overcoming Obstacles to Reducing Street Standards
Relationship to the Model Land Use Management Code
Relationship to Existing Quality Growth Tool Descriptions

STREET DESIGN PRINCIPLES AND STANDARDS

Principles for Smart Street Design
A Healthy Street Typology
Alleys
Lanes
Local Streets
Avenues and Main Streets
Boulevards
Parkways
Turnarounds
Curb Radii

SIDEWALK AND PEDESTRIAN NETWORK PRINCIPLES AND STANDARDS

Principles for Sidewalks and Pedestrian Networks
When Sidewalks Should be Required
Sidewalk and Pedestrian Network Standards

BICYCLE FACILITY STANDARDS

Principles for Bicycle Facilities
Cycling Behavior
Types of Bicycle Facilities: Which is Appropriate?

RETROFITTING CONVENTIONAL SUBURBAN SUBDIVISIONS

Pedestrian Connections Between Cul-De-Sacs
Local Street Network Planning
Retrofitting Existing Rights-Of-Way and Local Streets

OVERVIEW

Streets are the most prevalent of public spaces, touching virtually every parcel of private land (Oregon Transportation and Growth Management Program 1998). Streets must be places rather than simply channels of movement (Ewing 1997, 65).

This extended commentary is intended to accompany Model Code provisions §4-2 and §4-3.

Why Alternative Street Standards Are Needed

It is increasingly accepted that street design standards have historically overemphasized automobiles, but that they need to introduce human-scale design. Communities have

historically borrowed subdivision street standards from state highway manuals and other communities without judging for themselves the local context in which they have chosen to apply them. Many of the street standards that govern land subdivisions are now out of character with the neighborhood and produce inappropriate behavior (e.g., speeding) by motorists (Burden et al. 2002). Some communities insist on “gold-plated” standards because it is the developer who is paying for the subdivision improvements. Wide subdivision street standards have been criticized as unnecessarily contributing to the costs of housing (Advisory Commission on Regulatory Barriers to Affordable Housing 1991).

Furthermore, some street standards no longer meet the need for which they were intended, or never served a valid public purpose in the first place. For instance, the Advisory Commission on Regulatory Barriers (1991) finds that communities establish cul-de-sac radius requirements that can accommodate the largest firefighting apparatus — usually a ladder truck — even though a ladder truck is never dispatched to single-family residential neighborhoods.

Overcoming Obstacles to Reducing Street Standards

Efforts to reform current street standards often must confront opposition from traffic engineers, who might insist that the existing street standards (which require wide pavement widths and generous turning radii) are required to ensure public safety. Street width standards can be reduced, however, without compromising safety, function, and performance. Space needed for emergency vehicles, for instance, is less than most local governments previously thought (Transportation and Growth Management Program 1998).

Furthermore, the width of vehicles is often less than expected. The average car or pickup truck is only about 5 ½ to 6 ½ feet wide, and even dump trucks and school buses are rarely more than 7 feet wide (Arendt 1994).

Traffic engineers cite the well-known “A Policy on Geometric Design of Highways and Streets” (1994) (a.k.a., the “Green Book”) of the American Association of State Highway and Transportation Officials (AASHTO) in support of maintaining wide streets and generous geometric requirements for streets. As proponents of more human-scaled streets have noted (Marriott 1998; Burden 2002), however, AASHTO’s Green Book supports in many ways the design of streets for pedestrians and bicyclists. When opposition to smaller street widths is encountered, proponents can cite the Green Book (excerpted by Burden et al. 2002) which indicates that, for certain single-family residential neighborhoods, it is acceptable and safe to have streets so narrow that there is only one unobstructed lane:

“On residential streets in areas where the primary function is to provide land service and foster a safe and pleasant environment, at least one unobstructed moving lane must be ensured even where parking occurs on both sides. The level of user inconvenience occasioned by the lack of two moving lanes is remarkably low in areas where single-family units prevail” (AASHTO Green Book, “Number of Lanes,” p. 431, cited in Burden et al. 2002).

“On these [narrow residential] streets, with intermittent on-street parking, the street’s width may occasionally require one driver to slow down or pull over to let an oncoming vehicle pass before proceeding, particularly if one of the vehicles is a truck or other large vehicle. The keys here are the words “occasionally” requiring drivers to pull over or stop and “intermittent” on-street parking that allows such pulling over....From the designer’s perspective, where volumes are low and large vehicles are few, one may actually only

need a single, relative clear or through lane” (Institute of Transportation Engineers 1999, 5).

Furthermore, when local fire chiefs argue that street standards cannot be reduced because skinnier streets will hinder access by fire trucks, proponents of skinny streets can reply by citing the following evidence:

A study of fire trucks and suitability of access of residential streets in Winter Park, Florida, revealed the following: Winter Park Fire Department trucks are 9.5 feet wide (from mirror to mirror). Fire fighters chose 20 of Winter Park’s narrowest streets, which included streets as narrow as 16 feet wide with parking on one side. Other streets with parking on both sides had street widths of 22-24 feet. The Winter Park Fire Department officials assured the study sponsors that they could navigate any street in the city (Burden et al. 2002).

The most confining street situation for emergency vehicles is the local street with cars parked on both sides. The parked cars occupy 13 to 14 feet of the roadway, leaving ten to 13 feet for the passage of emergency vehicles, even on a minimal 24- to 26-foot-wide street. The maximum width of a standard pumper is eight feet, excluding mirrors. Thus, even with parked vehicles present on both sides of a local street, a standard pumper can freely negotiate the street (Urban Land Institute et al. 2001).

Relationship to the Model Land Use Management Code

Section 4-1 of the Model Code (Alternatives to Conventional Zoning) provides basic improvement requirements for streets and sidewalks (see “Requirements for Streets,” and “Sidewalks”). The minimum pavement width requirement for local streets is not excessive at 24 feet; in fact, that requirement is less than many suburban subdivision street standards. However, the street standards of §4-2 of the Model Code imply the conventional street hierarchy of arterial, collector, and local streets and wide radii for cul-de-sac rights-of-way and pavement widths. With regard to sidewalks, the requirements of §4-1 of the Model Code only require a sidewalk be constructed on one side of the road.

Communities are encouraged to be more flexible in establishing street standards that will encourage pedestrian use, reduce cost requirements and promote quality of place. The standard specifications in §4-1 do not necessarily serve those objectives. For these reasons, and to provide additional flexibility, a set of flexible street standards is provided as an additional module of the Model Code (see §4-2).

STREET DESIGN PRINCIPLES AND STANDARDS

Principles for Smart Street Design

- Streets should be “skinny,” or no wider than the minimum width needed to accommodate the typical and usual vehicular mix that the street will serve.
- Residential streets should be built at a variety of widths, depending on their function and hierarchy in the street system.
- Smart development encourages people to take alternative modes: riding transit, biking, or walking. Streets should be designed with different users in mind, including bicyclists and pedestrians (nonmotorized travel).

- If streets are more than two lanes, they should be divided by wide, planted medians to appear more like two one-way streets.
- Cul-de-sacs and other dead-end streets hinder connectivity and should be avoided wherever possible. Short loops and cul-de-sacs are acceptable as long as higher-order streets (arterials, collectors) offer many interconnections and direct routing.
- Higher-order streets (arterials, collectors) should be spaced one-half mile or less apart, or the equivalent route density in an irregular road network.
- All streets, except for alleys and roads in rural areas or adjacent to natural settings such as parks, should have vertical curbs. A vertical curb clearly distinguishes the space allocated for the automobile from the space provided for pedestrians and people in wheelchairs. Rollover curbs encourage drivers to park their cars up on the sidewalks and therefore create a hostile environment for pedestrians.

A HEALTHY STREET TYPOLOGY

TYPE	PURPOSE	RIGHT-OF-WAY WIDTH	ROAD PAVEMENT WIDTH	OTHER FEATURES
Alleys	Service access	20 feet	10 -12 feet	
Lanes	Access to homes	38 feet	16 -18 feet	Landscaping and sidewalks
Streets	Access to single and multi-family housing	48 - 50 feet	24 - 26 feet	Landscaping and sidewalks; on-street parking on both sides
Avenues	Connect neighborhoods to town centers	80 feet	48 feet	Raised center median; landscaping, sidewalks, bike lanes and on-street parking on both sides
Main Streets	Neighborhood and commercial access	60 feet	36 feet	Landscaping, sidewalks and on-street parking on both sides
Boulevards	Multi-lane access to commercial buildings; carry regional traffic	104 feet	70 feet	Raised center median; landscaping, sidewalks, bike lanes and on-street parking on both sides
Parkways	Carry traffic through natural areas; not designed to accommodate adjoining development	120 feet	44 feet	Four travel lanes; raised center median; landscaping and trails (separate bike and pedestrian access) on both sides

Source: Burden, Dan, with Michael Wallwork, Ken Sides, Ramon Trias and Harrison Bright Rue. 2002. Street Design Guidelines for Healthy Neighborhoods. Sacramento Local Government Commission.

The paragraphs below summarize the typology of street types that are specified in the accompanying model code provisions. Generally, options are provided which give the community flexibility in terms of whether on-street parking is permitted. Traffic engineers refer to two conditions, yield-flow and slow-flow operations as described below:

- Yield-flow operation: two parking lanes and one traffic lane.
- Slow-flow operation: one parking lane and two traffic lanes.

The number of lanes required can, of course, vary based on whether the street is one-way or two-way.

Alleys

Alleys are sometimes prohibited in conventional suburban subdivision codes. In others, they are permitted but perhaps discouraged with excessive pavement width requirements. In neotraditional developments (TNDs), alleys are encouraged. Many TNDs have alleys, with garages and carports fronting the alley rather than the street. "Locating garages and driveways at the rear of properties [and accessed by alleys] improves the streetscape by eliminating the sight of cars parked in driveways and avoiding house designs that present the garage as the dominant feature seen from the street." (Urban Land Institute et al. 2002)

Typically, alleys have 20-foot rights-of-way. In cases where two-way travel is desired, or parking is permitted, alleys are typically constructed to a width of 16 feet. Burden et al. (2002) suggest that alleys can be as skinny as 10 -12 feet wide, implying that one-travel lane is considered sufficient for alleys. If subdivision blocks are kept short, the lengths of any given alley segment is also kept short, and thus the inconvenience of a garbage truck or other obstruction occupying the travel lane (and delaying access by others) is mitigated. Parking should be prohibited on skinnier alleys. Curbs are rarely provided (or needed) for alleys.

Lanes

Burden et al. (2002) suggest that lanes can be as skinny as 16 -18 feet of pavement width and rights-of-way as narrow as 38 feet. The local street network plan for Eugene, Oregon, provides specifications for access lanes with pavement widths of 21 feet to 28 feet depending on use and flow options. Most local governments will not reduce their pavement width for a lane below 20 feet due to fire code requirements for access.

Local Streets

The Model Code street specifications (see §4-2) provide alternatives for local streets ranging from pavement widths of 20 - 34 feet (right-of-way widths of 40 - 60 feet).

Avenues and Main Streets

Avenues are designed to connect residential neighborhoods to town centers. They are also sometimes referred to as residential collectors in the conventional hierarchical system of roads. They accommodate bicycle and transit use, and they can be equipped with a raised center island median. On-street parking is optional.

Main streets provide access to neighborhoods and commercial and mixed-use buildings. Typically, on-street parking is provided. Bike lanes are optional but preferred. Center island medians are usually not provided, but “bulbouts” (curbed intrusions into the line of traffic to slow vehicles) are often provided to calm traffic and extend sidewalks into the roadway (thereby shortening walking distance while maintaining safety).

Boulevards

Boulevards are multi-lane access ways for commercial and mixed-use buildings and regional traffic. Boulevards are typically designed with bike lanes, sidewalks and sections of on-street parking.

Parkways

Parkways carry regional traffic and are not designed to provide access to abutting properties. Typically, parkways adjoin natural areas. Bike paths are often found on the edges of parkways, separated from traffic lanes by distances of at least ten (10) feet, sometimes 100 feet or more.

Turnarounds

Suburban subdivision street standards often limit the options for turnarounds to a cul-de-sac and specify excessive radii for cul-de-sacs (i.e., the distance from the center of the circular turnaround to the edge of the circular turnaround). For instance, some communities still require 60-foot right-of-way radii and 50-foot pavement radii for cul-de-sacs. Section 2-3 of this Model Land Use Management Code establishes a 50-foot right-of-way radius and a 40-foot pavement radius (from back-of-curb) for cul-de-sacs. Even that standard may be considered excessive in some cases, however, as noted in the excerpt below:

“The recommended radius for the paved area of a circular turnaround without a center island serving passenger vehicles is 30 feet. If frequent use of the turnaround by single unit vehicles (municipal services equipment, school buses) is likely, a 42-foot radius may be required. Single unit vehicles can use a turnaround with a 30-foot radius, but backing would be required. A 42-foot radius can accommodate SUVs and other large passenger vehicles as well as all commercial and service vehicles with a regular need to visit residential streets, including school buses, all types of delivery trucks, emergency vehicles, solid waste collection trucks and repair services vehicles.” (Urban Land Institute et al. 2002, 33-34)

Circular turnarounds (i.e., cul-de-sacs) are usually preferred, because they do not normally require backing-up movements. Cul-de-sacs do not necessarily have to be completely paved over; alternative standards allow for center islands within cul-de-sacs.

There are other alternatives as well, such as “T-shaped” or “Y-shaped” turnarounds which can be used for short streets and alleys serving up to ten houses. These alternative turnaround designs require all vehicles to make a backing-up movement, but that inconvenience can be justified on streets with low traffic volumes. One justification is that such alternative turnarounds yield a paved area only 43 percent as large as the smallest (30-foot radius) turnaround. They

also have lower construction and maintenance costs and provide greater flexibility in land planning. (Urban Land Institute et al. 2002)

Curb Radii

Curb radii are important because they allow vehicles to make turning movements. If they are insufficient, a vehicle may not be able to make the turn without scrubbing or bumping into the curb. Curb radii need to accommodate the expected amount and type of traffic and allow for safe turning speeds. As the curb radius increases, the paving cost increases, as does the distance that a pedestrian must cross. As curb radii increase, the speed of turning movement increases. When curb radii are excessive, drivers can make turns at excessive speeds. These reasons suggest that curb radii standards should be reviewed to ensure they meet safety requirements but are not excessive (Urban Land Institute et al. 2002). When curb radii are 30 feet or more, the likelihood that a vehicle will stop to make a right-hand turn decreases, because the larger curb radii creates a “free-right” or continuous turning movement (Institute of Transportation Engineers 1999). The AASHTO Greenbook recommends 25-foot or more curb radii at minor cross streets, 30 feet or more at major cross streets and 40 feet or more where large truck combinations and buses turn frequently (Oregon Transportation and Growth Management Program 1999). Curb radii exceeding 30 feet, however, should only be required where absolutely necessary for large truck turning movements.

SIDEWALK AND PEDESTRIAN NETWORK PRINCIPLES AND STANDARDS

Principles for Sidewalks and Pedestrian Networks

- Smart street design requires an emphasis on the role of pedestrians in addition to vehicular traffic.
- “Emphasis has been placed on the joint use of transportation corridors by pedestrians, cyclists and public transit vehicles. Designers should recognize the implications of this sharing of the transportation corridors” (AASHTO Green Book).
- “Pedestrians are a part of everyday roadway environment and attention must be paid to their presence in rural as well as urban areas” (AASHTO Green Book).
- “Sidewalks are integral parts of city streets, but few are provided in rural areas. Yet, a need exists in many rural areas because the high speed and general absence of adequate lighting increase the accident potential to those walking on or adjacent to the traveled way” (AASHTO Green Book).
- As a general practice, sidewalks should be constructed along any street or highway not provided with shoulders, even though pedestrian traffic may be light” (AASHTO Green Book).
- “Sidewalks used for pedestrian access to schools, parks, shopping areas and transit stops and placed along all streets in commercial areas should be provided along both sides of the street” (AASHTO Green Book).
- “In residential areas, sidewalks are desirable on both sides of the street but need to be provided on at least one side of all local streets” (AASHTO Green Book).
- A comfortable, convenient, and safe street environment is necessary to encourage non-motorized travel. Sidewalks should be required along all potential pedestrian routes to make walking safer and more convenient.
- New subdivisions must have direct pedestrian and bicycle connections to adjacent schools, community centers and commercial areas.

- Developments should be required to provide pedestrian connections on private properties to public sidewalks.
- Trips can be shortened through good site planning. Pedestrians like to follow the “path of least resistance” and thus will cut corners to keep their routes as direct as possible. Short, straight streets and sidewalks help minimize distance traveled and increase pedestrian use.

Providing isolated refuge islands or intermittent accommodations is not sufficient; pedestrians and bicyclists need a continuous network.

§4-2-3.1 Alleys

Because alleys are not typically curbed, the standards provide for some minimal shoulder area. Urban Land Institute et al. (2002, 29) recommend that “instead of curbs, planners should consider a two-inch invert in the cross-section of the alley pavement for stormwater runoff.” Generally, one-way alleys should not be provided.

As noted in the extended commentary that precedes this module, the widest fire truck is approximately 9.5 feet wide, and so 10- or 11-foot wide travel lanes are considered adequate. The most adamant proponents of “skinny” streets would argue that lanes only need to be nine (9) feet wide with a seven (7) foot parking lane, and that free-flow in both directions is not required for low-volume streets. The Urban Land Institute et al. (2002) suggest that an 18-foot wide pavement is adequate for low-volume streets where no parking is expected, but they also indicate that striped parking lanes should be eight feet wide. Although a community may pursue such design options that will provide the “skinniest” of the skinny streets, this Code module assumes that fire codes will prevent a reduction of two-way paved areas below 20 feet.

§4-2-3.2 Lanes

A 14-foot wide lane is technically wide enough to accommodate two cars passing, though it provides for tight passing with no room for error. Permitting parking on both sides of the street may allow for reductions in front building setbacks (which are often established to allow for 20 feet of parking in a residential driveway), and eliminate the need for garages, thus contributing to a nontraditional character and/or more affordable, pedestrian-friendly neighborhoods. Skinny street standards do not appear to provide extra room for utilities, or they assume that whatever utilities are required can be provided under the street pavement width or within the planting strips. Communities that are concerned about maximizing the right-of-way use without designating utility corridors within the right-of-way can add five feet to the required right-of-way width specified in this module. Planting strips do not have to be 6 - 7 feet wide; some communities provide only a two-foot wide grass-strip between the sidewalk and curb. However, to provide sufficient space for street trees, the specifications provided herein generally require at least a six-foot wide planting strip.

§4-2-3.3 Local Streets

Sidewalks are recommended on both sides of the street; however, those communities that find a sidewalk on one side is sufficient (preferably on low-volume, low-density residential streets) can reduce right-of-way widths to 40 feet. A five-foot wide sidewalk is considered sufficient

(some suburban standards remain at four feet, although slightly wider sidewalks might be preferred in some jurisdictions).

§4-2-4 Pedestrian System Standards

Sidewalk standards are also provided in §4-1-25 of the Model Code.

§4-3-6.1 Bicycle Lane Minimum Lane Width, Use and Location

The width of a rider on a bicycle is approximately two feet. Considering maneuvering allowances, a bicyclist really only needs three and one-half (3 ½) feet. Hence, if five-foot or six-foot wide bike paths are a problem and need to be narrowed, they might be reduced to four feet (DeChiara and Koppelman 1984).

Principles for Bicycle Facilities

- Communities can better provide for the needs of bicyclists at reasonable cost by maximizing the usefulness of existing roads through improving the safety of shared roadway space. For instance, paved or landscaped islands and medians not essential for traffic control can be removed and replaced with marked pavement to add several feet of usable width for bicyclists (Pinsof and Musser 1995).
- Studies show that people engaged in long, regional routes will ride a bicycle a couple of miles to a transit stop, or eight times the typical walking distance. If bicycle parking facilities and bike carriers on transit vehicles are provided, good bicycle access to transit can result in a significant increase in transit ridership (Ewing 1997, 46).
- “The local roadway is generally sufficient to accommodate bicycle traffic; however, when special facilities are desired they should be in accordance with AASHTO’s *Guide for Development of Bicycle Facilities*” (1991) (AASHTO Green Book).
- Wide curb lanes (i.e., through-lanes with a width of 14 feet or more) accommodate bicycle use, but striped and signed bike lanes may encourage increased use (Pinsof and Musser 1995).
- Careful attention must be paid to providing safety when bike lanes are established contiguous to on-street parking (i.e., parking lanes). Parking lanes may be narrowed to seven (7) feet adjacent to a bike lane in areas with low truck-parking volumes (Pinsof and Musser 1995).

Cycling Behavior

Bike trips for work, shopping and other utilitarian purposes are usually less than two miles. Bicyclists and pedestrians are much more sensitive than motorists to the length of trips and the environment in which they travel. Pedestrian and bicyclists travel for the experience as well as the trip purpose (Ewing 1997)

Bicyclists should never be directed to use sidewalks. Bicyclists should not be permitted to ride in a direction against the flow of motor vehicle traffic. Cyclists often prefer collector streets over local access streets, since they offer a more continuous and direct route of travel. Many cyclists will still want to use the roadway, even when a separate bicycle path is provided, despite the fact that state law may require that they ride on the bicycle path (Pinsof and Musser 1995).

Types of Bicycle Facilities: Which is Appropriate?

Standards for bicycle networks depend on the primary user. Skilled bicyclists prefer to travel on the street system along with automobiles, but they are a small percentage of all bike riders. Children and casual adult cyclists must be separated from high-speed, high-volume traffic or they will not ride; they outnumber skilled riders 20 - 1 (Ewing 1997, 63-64). These findings suggest that, if resources for bikeway improvements are limited, then planning bicycle paths that will accommodate children and unskilled bicyclists will be more responsive to demands. Generally, there are four types of bicycle facilities: bicycle paths, bicycle lanes, shared-road facilities and paved shoulders. Bicycle paths are the most accommodating and safest for all bicyclists. Bicycle lanes also tend to encourage increased use. Shared-road facilities may be acceptable and safe in certain circumstances but will probably not encourage bicycle use. Paved shoulders should not be selected as an alternative unless the other facility types cannot be accommodated due to cost considerations or safety concerns. As noted by Pinosof and Musser (1995):

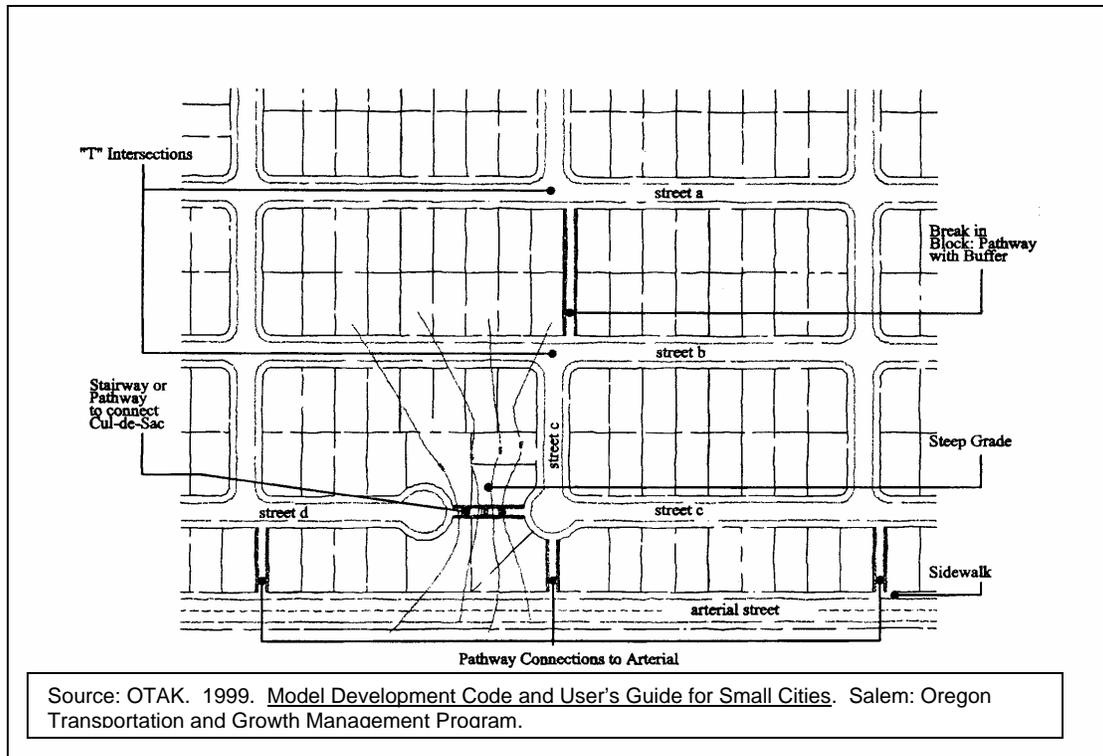
“For experienced cyclists, wide curb lanes or paved shoulders may be all that is necessary to encourage riding on major arterials. For those cyclists less experienced at riding in traffic, designated bicycle lanes or an alternative on-street route may be the facility of choice.”

RETROFITTING CONVENTIONAL SUBURBAN SUBDIVISIONS

Attempting retrofit conventional suburban subdivision streets for bike paths, better pedestrian access and interconnectivity can be a major challenge. There are several potential actions that planners and neighborhood activists can pursue that can help transform standard subdivision streets into more livable, pedestrian friendly, multi-purpose corridors.

Pedestrian Connections Between Cul-De-Sacs

One such effort is to connect two cul-de-sacs that back up to one another with a pedestrian access easement between them. The need for connecting cul-de-sacs should be self-evident; connections provide direct routes among residences and thus reduce the time and inconvenience of pedestrians who have to use the subdivision street network. Without such a connection, they will consider driving rather than walking to a neighbor's house.



Local Street Network Planning

As noted previously in this commentary, the conventional hierarchy of streets (i.e., local collectors joining collector streets which empty onto arterial streets) has resulted in limited travel route options and congestion of collectors and arterials in suburban areas. A fully developed suburban residential area is unlikely to have many physical options for installing additional local streets, and those options that may exist are not often easily accepted by existing residents. In cases where some undeveloped land exists among developed subdivisions in the area, planners should consider proposing additions to the system of local roads so that a connected pattern of local streets will form a more accessible local street network.

Retrofitting Existing Rights-of-Way and Local Streets

Many suburban subdivisions have very wide street rights-of-way (e.g., 60 feet) and street pavement widths (e.g., 28-30 feet). Excessive pavement widths can be reduced or modified to include wider (or if they are non-existent, new) sidewalks, planting strips for landscaping and street trees and striping for bicycle lanes.

The opportunities to influence the design and characteristics of streets are greater before they are built. Simply put, changing standards now is more effective than trying to retrofit streets after construction. For this reason, communities that want to improve the quality of street life should focus on adopting standards that promote and encourage, if not require, streets with greater levels of convenience and comfort for pedestrians. Section 4-2 of the Model Code provides alternative street standards for local governments to consider. These specifications can supplement or even replace those standards provided in Section 4-1 of the Model Code.

REFERENCES

Advisory Commission on Regulatory Barriers to Affordable Housing. 1991. *“Not In My Backyard”*: Removing Regulatory Barriers to Affordable Housing. Report to President Bush and Secretary Kemp. Washington, DC: U.S. Department of Housing and Urban Development.

American Association of State Highway and Transportation Officials. 1994. *A Policy on Geometric Design of Highways and Streets*. Washington, DC: AASHTO.

Arendt, Randall. 1999. *Crossroads, Hamlet, Village, Town: Design Characteristics of Traditional Neighborhoods, Old and New*. Planning Advisory Service Report No. 487/488. Chicago: American Planning Association.

Arendt, Randall. 1996. *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*. Washington, DC: Island Press.

Arendt, Randall, with Elizabeth Brabec, Harry Dodson, Christine Reid, and Robert Yaro. 1994. *Rural By Design: Maintaining Small Town Character*. Chicago: Planners Press.

Bucks County (PA) Planning Commission. 1980. *Performance Streets*. The Author.

Burden, Dan, with Michael Wallwork, Ken Sides, Ramon Trias, and Harrison Bright Rue. 2002. *Street Design Guidelines for Healthy Neighborhoods*. Sacramento: Local Government Commission, Center for Livable Communities.

DeChiara, Joseph, and Lee E. Koppelman. 1984. *Time-Saver Standards for Site Planning*. New York: McGraw-Hill.

DeChiara, Joseph, Julius Panero, and Martin Zelnik. 1995. *Time-Saver Standards for Housing and Residential Development*. 2nd Ed. New York: McGraw-Hill.

Ewing, Reid. 1997. *Transportation & Land Use Innovations: When You Can't Pave Your Way Out of Congestion*. Chicago: Planners Press.

Ewing, Reid. 1996. *Best Development Practices: Doing the Right Thing and Making Money at the Same Time*. Chicago: Planners Press.

Florida Department of Transportation. *Bicycle Planning & Design Manual*.

Florida Department of Transportation. 1992. *Developing Pedestrian Plans: Pedestrian Coordinators Manual*.

Florida Department of Transportation. 1989. *Florida Pedestrian System Plan*.

Freilich, Robert H., and Michael A. Schultz. 1995. *Model Subdivision Regulations: Planning and Law*. Chicago: Planners Press.

Georgia Quality Growth Toolkit. *Flexible Street Design Standards*.

Heyer, Fred. 1990. *Preserving Rural Character*. Planning Advisory Service Report No. 429. Chicago: American Planning Association.

Institute of Transportation Engineers. 1999. *Traditional Neighborhood Development Street Design Guidelines*. Washington, DC: Institute of Transportation Engineers.

Kulash, Walter M. 2001. *Residential Streets*, 3rd Ed. Washington, DC: Urban Land Institute, National Association of Home Builders, American Society of Civil Engineers, and Institute of Transportation Engineers.

Listoken, David, and Carole Walker. 1989. *The Subdivision and Site Plan Handbook*. New Brunswick, NJ: Rutgers, the State University of New Jersey, Center for Urban Policy Research.

Mantell, Michael A., Stephen F. Harper, and Luther Propst. 1990. *Resource Guide for Creating Successful Communities*. Washington, DC: Island Press.

Marriott, Paul Daniel. 1998. *Saving Historic Roads: Design and Policy Guidelines*. New York: John Wiley & Sons, Inc.

Morris, Marya. 1996. *Creating Transit-Supportive Land-Use Regulations*. Planning Advisory Service Report No. 468. Chicago: American Planning Association.

Oregon Administrative Rules, OAR 66-12, Transportation Planning Rule.

Oregon Transportation and Growth Management Program. 1998. *Main Street...When a Highway Runs Through It: A Handbook for Oregon Communities*. Salem, OR: Transportation and Growth Management Program.

Oregon Transportation and Growth Management Program. 1998. *The Principles of Smart Development*. Planning Advisory Service Report No. 479. Chicago: American Planning Association.

OTAK. 1999. *Model Development Code and User's Guide for Small Cities*. Salem: Oregon Transportation and Growth Management Program.

Parsons, Brinckerhoff Quade and Douglas, Inc. with Cambridge Systematics, Inc. and Calthorpe Associates. December 1993. *Making the Land Use, Transportation, Air Quality Connection: The Pedestrian Environment, Volume 4A*. Portland: 1000 Friends of Oregon.

Pinsof, Suzan Anderson, and Terri Musser. 1995. *Bicycle Facility Planning*. Planning Advisory Service Report No. 468. Chicago: American Planning Association.

Stover, Vergil G., and Frank J. Koepke. 1988. *Transportation and Land Development*. Washington, DC: Institute of Transportation Engineers.

Town of Huntersville Zoning Ordinance. 1999. Huntersville, NC: Planning Dept.

§4-4 Tree Protection

Trees provide many benefits for a community, including reducing air and noise pollution, reducing water pollution and flooding, providing natural habitat, preventing erosion, raising property values, and enhancing a community's image. This module provides a tree protection ordinance that protects trees during the development process, requires street trees, and protects public trees.

§4-4-3.3 Canopy Cover Requirements

Communities without access to aerial photographs or other convenient methods of determining canopy cover may elect to formulate the protection requirement as a percentage of the site (e.g., 10 percent of the site must be retained as woodland). Alternatively, communities with more administrative resources may wish to develop more detailed standards and require a tree survey and tree protection plan based on tree densities or other more specific standards (see <http://www.isa-arbor.com/tree-ord/ordintro.htm> for more information).

§4-4-3.5 Protection of Trees During Construction

As an alternative or as a supplement to tree protection measures, a community may choose to adopt specimen or “heritage” tree protections, which protect individual trees considered important because of their size, species, age, historic significance, aesthetics, location, ecological importance, or other unique characteristics. For information on developing specimen tree protection measures, see <http://www.isa-arbor.com/tree-ord/ordintro.htm>.

§4-4-6.2 Tree Topping

Many small jurisdictions choose to create a Tree Commission or Tree Board to help administer the ordinance and provide policy direction for the urban forest; however, for administrative simplicity, such a provision been excluded. More information about Tree Commissions may be found at: <http://www.isa-arbor.com/tree-ord/ordintro.htm>

§4-4 References

Abbey, Buck, ASLA. Guide to Writing A City Tree Ordinance: Model Tree Ordinances for Louisiana Communities. Louisiana State University. Available on-line at: <http://www.design.lsu.edu/greenlaws/modeltree.htm>

Bernhardt, E., and T. J. Swiecki. 1991. Guidelines for Developing and Evaluating Tree Ordinances. Sacramento: Urban Forestry Program, California Department of Forestry and Fire Protection. <http://www.isa-arbor.com/tree-ord>

Bond, Jerry. Sample Brief Tree Ordinance. Adapted from Hoefer, Philip, Himelick Dr. E.B., and David F. Devoto’s Municipal Tree Manual, based on a sample ordinance prepared by Jim Nighswonger, 1982. <http://www.cce.cornell.edu/monroe/cfep/factsheets/sampleordinance.htm>

§4-5 Landscaping and Buffers

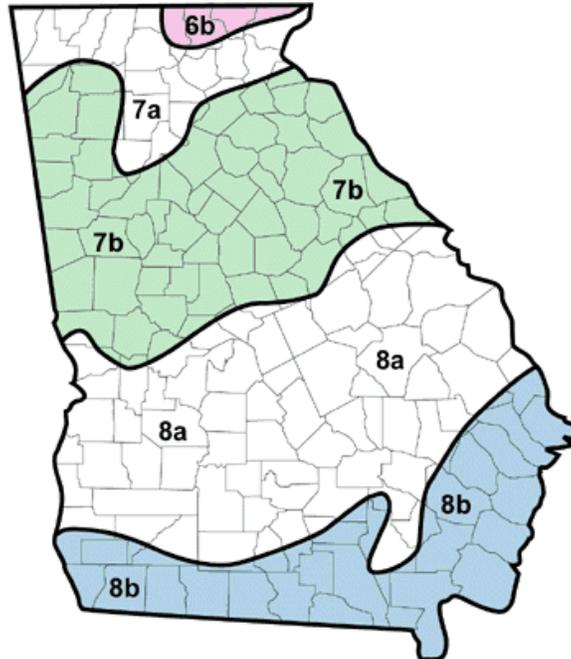
This module provides detailed landscape and buffer requirements. It provides lists of plants and trees are adapted from Corley et al. 1999 and Garber and Ruter 2002, but modified to exclude invasive and potentially invasive species.

This list categorizes plants that require a minimal amount of care by mature plant size and landscape uses. The taxa are also classified according to tolerance of poor, infertile soils; wet,

poorly drained sites; dry, well-drained sites; urban stress; salts; and shade. In cases where shade tolerance is indicated, plants grow best in some degree of shade. Each entry in the list is shown as evergreen or deciduous or variation thereof. Hardiness, or climatic zone adaptation, is indicated in the taxa column.

Other low-maintenance plants may be appropriate for inclusion, but in no case should invasive species be placed on the list. Note that not all plants are equally suitable for every part of the state. Local county cooperative extension offices can provide assistance and suggestions to help tailor the list to the individual jurisdiction. Communities should modify the recommended plant list based on planting experiences in the local landscape where possible. Moreover, the list should be modified to include, and emphasize, native plants that do well in the jurisdiction in question.

Commentary on Georgia's Hardy Zones: The plant hardiness zones (see map) denote areas in the state where a plant has the best chance of survival and growth. The zones are based on the average minimum temperature the plant will tolerate. The numbers and letters in parentheses are the zone designations used in the reference publication. Note that, in virtually every case, the entries in the list are appropriate statewide.



Plant Hardiness Zones for Georgia

Source: USDA Plant Hardiness Zone Map, Miscellaneous Publication No. 1475, Agricultural Research Service, 1990.

§4-5 References

Abbey, Buck. 1998. *U.S. Landscape Ordinances: An Annotated Reference Book*. New York: John Wiley & Sons, Inc.

Brough, Michael B. 1985. *A Unified Development Ordinance*. Chicago: Planners Press.

Corley, Will, Jim Midcap, Mel Garber, and Gary Wade. 1999. *A Compilation of Low-Maintenance Plants for Georgia Landscapes*. The University of Georgia College of Agricultural

& Environmental Sciences Cooperative Extension, Horticulture Fact Sheet H-91-009. Available at: <http://www.ces.uga.edu/Agriculture/horticulture/H-91-009.htm>

Garber, Melvin and John Ruter. 2002. Natural Resource Conservation: Small Trees for the Landscape Ordinance. The University of Georgia College of Agricultural & Environmental Sciences Cooperative Extension, Horticulture Fact Sheet H-00-061. Available at: <http://www.ces.uga.edu/Agriculture/horticulture/H-01-061.htm>

Martz, Wendelyn A. ,and Marya Morris. 1990. *Preparing a Landscape Ordinance*. Planning Advisory Service Report Number 431. Chicago: American Planning Association

PART FIVE: PERFORMANCE-BASED REGULATIONS THAT DO NOT USE A MAP

§5-1 Performance Standards For Off-Site Impacts

This module addresses the impacts of land uses that can adversely effect abutting properties, including lighting (glare), noise, vibration, odor, smoke or particulate matter, and electromagnetic interference. Rural counties and small cities that do not want to adopt a zoning ordinance can adopt this module to regulate the most offensive types of impacts of any given land use. These regulations are “performance standards” in the sense that any land use that can meet these requirements can be located anywhere in a given community.

§5-1-1 Outdoor Lighting

Good outdoor lighting at night benefits everyone. It enhances the community’s nighttime character, and helps provide security and safety. New lighting technologies have produced lights that are extremely powerful, and these types of lights may be improperly installed so that they create problems of excessive glare, light trespass (spill light), and higher energy use. Excessive glare can be annoying and may cause safety problems; light trespass reduces everyone's privacy; and higher energy use results in increased costs. There is a need for lighting regulations that recognize the benefits of outdoor lighting and provide clear guidelines for light fixtures to help maintain and compliment the city’s character. Appropriately regulated, and properly installed, outdoor lighting will contribute to the safety and welfare of the residents of the city or county.

§5-1-1.8 Illuminance Levels

This section is optional. It provides a less restrictive standard with regard to light trespass. That is, a small amount of measurable light is allowed at property lines, as measured by a light meter. These illumination levels set maximum and in some cases minimum lighting levels. These recommendations are based on the Illuminating Engineering Society of North America and measurements of lighting taken by Jerry Weitz in the City of Roswell in 2000. A light meter can be purchased commercially for as little as \$100 and does not require any technical expertise to use. If the local government adopts this subsection on lighting levels, then the next section (which requires lighting plans) should also be adopted.

§5-1-1.9 Lighting Plan Required

This optional provision would require lighting plans for virtually all uses except for single-family dwellings. Lighting might be reviewed for all developments if a design review board is established. Local governments without design review boards might consider limiting the types of land uses that would require a lighting plan to certain uses which exhibit lighting problems and high lighting intensities that result in sky glow. For instance, automobile sales establishments, convenience stores, and commercial recreation facilities that operate at night are the most likely types of uses to warrant review by the local government for excessive lighting practices.

§5-1-2 Noise

The nuisance ordinance contains provisions on unwanted noises. Because rural cities and counties are unlikely to have sound level meters and experience in using them, the nuisance

provisions may be preferable in such communities. This section provides an empirical basis for measuring noise, in the event that a city or county wants to introduce measurement into its regulations for noise.

Noise is not simply a matter of loudness. It actually consists of three criteria that determine its impact: intensity, frequency, and duration. Intensity is measured in decibels (dB) on a logarithmic scale. Note that 70 dB is the point at which noise begins to harm hearing, and 45 dB disturbs sleep. To the ear, each 10dB increase in sound seems twice as loud. Frequency is measured in hertz (HZ) and relates to the number of cycles per sound of a sound wave. People feel sound more intensely when it is concentrated within a narrow frequency band. Duration refers simply to the length of time a sound lasts. To regulate noise, the dBA weighting scale is often recommended (Schwab 1993). The A-weighting scale is weighted toward the higher frequencies to account for human ear responses to sound. Today, there are high-quality instruments to measure sound—a sound-level meter with an octave-band filter is available from less than \$200 to well over \$1,000 (Schwab 1993).

§5-1-2.4 Performance Standards

Note that 70 dB is the point at which noise begins to harm hearing. 60 dB is the threshold of stress response, and 45 dB disturbs sleep. To the ear, each 10 dB increase seems twice as loud (Schwab 1993).

§5-1-3 Vibration

There are several examples of local performance standards governing vibration; however, they are complex and too detailed to be included in a model code for small cities and rural counties. They require vibration-measuring equipment that is not likely to be available in rural counties and small cities. The cost of such equipment is approximately \$2,000 (Schwab 1993), which makes it unlikely that vibration measuring equipment will be acquired. Vibration standards would probably be needed only in those jurisdictions that have heavy industries located adjacent to residential neighborhoods.

While general standards are frowned upon (given the ability to measure vibrations with appropriate equipment), in this case, a general standard is proposed versus a technical set of regulations which would require definitions of impact vibrations and steady state vibrations, and the establishment of performance standards that are beyond the comprehension of most persons.

§5-1-4 Odors

Again, local governments have implemented much more sophisticated, empirical standards for odors. There are standards for odor measurement that have been incorporated in local ordinances. Odor can be measured using air sampling and dilution techniques, but they generally require testing in odor-free laboratory environments. Hence, like vibration performance standards, they are too complicated to include in a model code for small cities and rural counties. For this reason, a general provision that does not require measurement is proposed. Most odors dissipate within a short distance, anyway.

§5-1-5 Smoke or Particulate Matter

Air pollution codes are too complicated to be handled by most code enforcement personnel. Furthermore, equipment involved in measuring air pollution is complex and expensive. Local codes sometimes use what is known as the “Ringelmann Chart” to measure the density of smoke or particulate matter. Fort Collins, Colorado, has a provision that may be a reasonable compromise between non-empirical provisions and those that would require laboratory testing: “No person shall emit or cause to be emitted into the atmosphere from any air contamination source of emission whatsoever any air contaminant which is of such a shade or density as to obscure an observer’s vision to a degree in excess of 20 percent opacity” (Schwab 1993).

§5-1 References

Illuminating Engineering Society of North America. 1999. *Lighting for Exterior Environments: An IESNA Recommended Practice*. RP-33-99.

Jaffe, Martin. 1995. Redesigning Industrial Performance Standards. *Land Use Law & Zoning Digest*, 47, 11: 5-10.

Model Outdoor Lighting Ordinance for Cities and Towns:
<http://cfa-www.harvard.edu/cfa/ps/nelpag/ordbylaw.html>

Schwab, Jim. 1993. *Industrial Performance Standards for a New Century*. Planning Advisory Service Report No. 444. Chicago: American Planning Association.

§5-2 Development Performance Standards

This module, “Development Performance Standards,” does not establish regulations by zoning or use district. Rather, it establishes on-site development controls; most, if not all, of which are frequently found in local zoning ordinances. A particular land use can locate anywhere in a given community (i.e., it is not subject to use restrictions or district regulations), so long as it meets the standards established in this section. This module is suggested as an alternative to conventional zoning and to the land use intensity districts and map module. If a local government adopts land use districts, then this module would duplicate those provisions in several ways and should, therefore, not be adopted in conjunction with that module. Whereas the land use districts module is considered to be a “light” version of zoning, this module (5-2) is an even lighter version of land use regulation. Section 5-2 can be adopted as a “stand-alone” ordinance, if provisions for site plan review and a land use permit requirement are added (these appear in other sections of this model code). When used in conjunction with Section 5-1, which regulates various off-site effects of development, a local government should have reasonable controls in place to protect abutting dwellings from the worst aspects of adjacent non-residential development.

§5-2-5 Building Height

Before zoning regulations existed, some cities established maximum heights. Such height limitations were established for at least two purposes. First, ladder companies (fire brigades) did not have ladders that would reach a height of approximately 35 feet, and persons could not be rescued from any buildings that exceeded such heights. Secondly, taller buildings can block sunlight, cast shadows and alter air movements (when located near other tall buildings, wind

tunnels can be created). Building height can also affect aesthetics, compatibility, and perhaps even property values of adjacent uses. For instance, a single-family dwelling may be reduced in enjoyment and value if a tall structure overpowers the residential yard, limiting sunlight, air currents, and invading privacy. The height of a structure can determine how compatible adjacent development will be when viewed and experienced from adjacent neighborhoods.

Height is the first of many performance standards required by this ordinance. It limits density by restricting the number of stories (by virtue of the maximum height limit) that a building can contain.

Local zoning ordinances typically establish maximum heights of buildings according to zoning district. This ordinance differs from conventional zoning in that it does not establish regulations by zoning district. This section provides two alternatives: one provides maximum height limits by type of land use rather than by zoning district. The second alternative, which could be used in conjunction with the overall height limitations, provides a performance standard that requires additional setback (distance), as the height of buildings increases.

§5-2-5.4 Height Performance Standard

This performance standard provides a flexible method of achieving compatibility between single-family homes and commercial or other uses. The height performance standard varies the allowable height of a building based on its distance from any residential structures. The 1:5 slope setback established by this performance standard allows greater height in exchange for greater building setback (i.e., one foot of additional building height is allowed for every five feet of setback from the dwelling, as measured from the property line abutting the dwelling).

§5-2-6 Yards

A yard is an open space, unobstructed by principal buildings. A building setback, which is the same as a yard if applied only to principal buildings, is measured from the property line toward the interior of the given lot. Yards, or building setbacks, were originally established in zoning regulations for various purposes. Rear yards were originally established for residential areas to preserve enough space so that home gardens could be planted. Front yards or front building setbacks were originally established to avoid the general public having to pay for buildings located within future right-of-ways when road widenings are required. Side yards or side building setbacks were initially established to avoid the spread of fire among buildings. Building setbacks and yards also serve the purpose of insuring adequate space, avoiding the appearance of overcrowding, and ensuring compatibility among abutting land uses.

Yards are a second performance standard (in addition to height), which limits the density and intensity of building on a given lot. By restricting where a building can be placed on the site, it also effectively limits the bulk of said building.

This subsection provides a matrix of side and rear yard requirements for several uses. It does not address front yard requirements because front yard requirements are typically based on the need to protect future rights-of-ways from encroachment by buildings. Because a front yard setback would apply from a right-of-way, a building on the opposite side of the street is already separated by, at minimum, the width of the street right-of-way between the two uses. This section does not require front yards, but front landscape strip requirements are recommended in a subsequent section, which provide de-facto front setback requirements.

As is the case with any dimensional standard in land use management codes, local governments may wish to allow for variances to these requirements, in cases of practical difficulty or extraordinary hardship. See Section 1-10 of this model code.

§5-2-7 Landscape Strips and Buffers

The front landscape strips required by this section provide another limit on intensity of development. By virtue of establishing a front landscape strip, less land is available for building or development. The buffers required by this section do not limit building intensity any further than already restricted by required yards, since the buffers fit within the required yards. This section provides for a waiver of landscape strips in certain instances and a reduction of buffer widths if a solid wooden fence is provided to ensure screening.

§5-2-8 Land Use Intensity Ratios

As noted in prior commentary, the combination of building height, minimum rear and side yards, and front landscape strips already serve to reduce the building intensity on any given site. Local governments need to determine whether these are sufficient, or whether additional controls may be needed. There are numerous additional performance standards that can be employed: maximum building coverage (percent of lot occupied by buildings), minimum open space (minimum percentage of the lot in open space), maximum impervious surface ratios, and maximum floor area ratios, among others. Typically, these types of performance standards differ on the basis of zoning districts or land use intensity districts. Since the premise of this section is that use districts will not be established, it is more challenging to determine how these types of restrictions might apply. As in the case of building height and yards, intensity standards can be applied to particular uses instead of zoning districts.

Commentary on selection of intensity regulations: A minimum open space ratio is relatively easy to administer. It is a simple calculation to add up the required open spaces and divide that area by the total area of the lot. Due to its simplicity, it is incorporated into the standards for various land uses as shown in the table below. Maximum impervious surface ratios are much more difficult to precisely measure at the site plan review stage, because plans rarely accurately depict all such impervious surfaces (including patios, walkways, and so forth in addition to the obvious impervious surfaces such as driveways and buildings). Few communities in Georgia, including those with the more sophisticated sets of land use regulations, require and enforce impervious surface ratios. Because of the difficulty in ensuring accurate measurements, the impervious surface ratio is not recommended for use in rural areas or small cities. In lieu of the impervious surface ratio, a development coverage ratio is applied. A development coverage ratio is the amount of land area covered by buildings and other uses, including parking lots and driveways, but not necessarily all impervious surfaces. Few rural communities are likely to incorporate a floor-area ratio (FAR) in their regulations, for a few reasons. First, the FAR is a tool that is more suitable in urban areas and perhaps suburban areas. Second, by limiting the maximum development coverage and building height, the FAR requirement becomes less necessary. Additionally, it becomes tricky to establish ratios for floor-area in a manner that they are consistent with the other intensity requirements used. Therefore, a FAR requirement is not recommended nor included in this module. Another land use intensity measure, density, applies to residential land uses and is measured on the basis of the number of units per acre. Density limitations are typically established on the basis of zoning or mapped land use intensity districts. Because this module does not assume districts, it is difficult if not impossible to establish one single maximum density regulation that could apply throughout a community. For example, in rural areas a maximum density of 0.2 or 0.5 units per acre might be appropriate. In suburban

areas, prevailing densities are 2-4 units per acre. In urban areas with multiple family developments, densities can range from six or eight units per acre to much higher densities. Hence, a density regulation is not used since use districts are not provided in this set of regulations. However, note that the combination of height, yard, open space ratio, and maximum development coverage ratio will indirectly limit the density of multiple-family residential uses, and that the regulations in Table 1 provide limits of intensity adjacent to single family residences.

Commentary on establishing land use intensity ratios: Table 1 below provides minimum open space ratios and maximum development ratios for specified land uses. The intention of these regulations is to limit non-residential land use intensity when development abuts one or more single-family residences. When a lot does not abut a single-family residence, the open space ratio is lower and the allowable development intensity ratio is higher. This method of regulation is admittedly imprecise, in that any development lot abutting a single-family residence is subjected to significantly lower development intensities. However, regulations that do not establish intensity regulations according to use districts must by definition lose some of the precision that can be accomplished when zoning or mapped land use intensity districts are utilized. It is also worth noting that the combination of open space and allowed development total 90 percent of the site, rather than 100 percent. This is done to allow for those characteristics of the site, such as detention ponds, walkways, etc. that are not included in either the definition of “open space” or “development.”

§5-3 Public Nuisance

A public nuisance Ordinance can address some of the more annoying and unsafe activities, such as loud noises, stagnant water, abandoned vehicles, accumulation of junk, tall weeds and grass, animals roaming at large, and so forth. What constitutes a public nuisance in one community may be acceptable in another. Furthermore, what may be intolerable in an urban residential neighborhood may be acceptable in a rural area. This module provides a public nuisance Ordinance that makes it unlawful to allow or maintain certain activities and conditions, and calls for the abatement of such unlawful activities or conditions. The County or City is authorized to abate public nuisances that have not been corrected.

§5-3-6 Contents of Notice

This module has been written to be consistent with O.C.G.A. §41-2-1. O.C.G.A. §41-2-5 authorizes cities to go to the municipal court and counties to magistrate court for abatement of nuisances. The courts have the power to hold a person in contempt if a nuisance is not abated. In addition, a city or county could make the failure to abate a nuisance a misdemeanor if not done after notice.

§5-3-7.4 Noise

This nuisance provision on noise overlaps the regulations proposed in the model code in Section 5-1. Local governments that adopt that module and this nuisance provision on noise may need to reconcile the two provisions for consistency, or choose between the two provisions.

§5-3 References

Adapted from: Nuisance Abatement Program and Ordinances, Erwin, North Carolina. Washington, DC: International City Management Association, Clearinghouse Report #38415, 1986.

§5-4 Major Permit Requirement

Description and purpose. This alternative is a modification of Vermont's Act 250 (adopted in 1970) permitting requirements. It establishes a local permit requirement for certain types of development. Rather than have such permits considered and acted upon by a regional commission, as is the case in Vermont, this alternative suggests that cities and counties could be the permit authority. This module is similar in many respects to Section 6-5, environmental impact review.

Example applications. Vermont's Act 250 establishes a permit requirement for virtually any development involving a "greater than local" impact. All housing projects with 10 or more units, all subdivision proposals with 10 or more lots, and commercial or industrial projects involving more than one acre in towns without zoning regulations, are among the types of development covered by Act 250 permit requirements. Permit requirements do not extend to farming and forestry activities.

Administrative requirements for implementation. While the locality could implement the permit process, there is likely going to be a need for an appeal procedure. Vermont administers the Act 250 permit requirements on a regional basis. Particularly complex permit applications require more expertise to administer. Adequate staffing has been an issue with Act 250 permit requirements (DeGrove 1984). The administrative requirements of a major permit ordinance would be similar to the "development standards and site plan review ordinance" alternative described above.

§5-4 References

DeGrove, John M. 1984. *Land Growth and Politics*. Chicago: Planners Press.

Myers, Phyllis. 1974. *So Goes Vermont: An Account of the Development, Passage, and Implementation of State Land-use Legislation in Vermont*. Washington, DC: Conservation Foundation.

Vermont Statutes: TITLE 10 Conservation And Development: [PART 5 Land Use And Development](#): [CHAPTER 151. STATE LAND USE AND DEVELOPMENT PLANS](#)

§5-5 Land Use Guidance (Point) System

This module provides a simple project rating system that may have some limited potential use in rural Georgia. It can be used as a supplemental growth management tool in addition to other land use management system modules presented in this model code. The rating system is designed to allow developments that are spatially located within or contiguous to existing development in the community and fully supported by services. Developments that are remote and not served by appropriate urban-level facilities generally cannot meet the approval of the point system established in this module, unless substantial additional amenities are provided.

Applications of Land Use Guidance Systems: The term “land use guidance system” is synonymous with the approach used in Hardin County, Kentucky. The land use guidance system as employed in Hardin County combined a rating system, a compatibility assessment, and a plan assessment. This module departs from the Hardin County model, in part because the negotiated process used by that system did not pass court tests.

The two most famous pioneering efforts, Ramapo and Petaluma, both incorporated point systems into their land use codes, as did the cities of Boulder, Breckenridge, and Ft. Collins, Colorado (Porter, Phillips, and Lassar 1988). As noted by Porter, Phillips, and Lassar (1988), the Breckenridge model is one that comes closest to providing a “pure form” of performance measures for evaluations of development proposals.

There are no known applications of this tool in Georgia, although DeKalb County reportedly investigated a point system approach but discarded it because “they found that accumulation of points in minor areas might offset irreversible damage in some other area and permit developments which would not be in the long-range interests of the community” (Georgia Mountains Planning and Development Commission 1979). The consultant (Jerry Weitz & Associates, Inc.) recommended against inclusion of this tool in the model land use management system. The reasons for initially recommending exclusion from the model code are explained in the task 2 report, “Alternative Land Use Management Techniques with Potential Application in Rural Georgia”, and include legal limitations, administrative complexities, and a potential lack of political acceptance. However, the client (Georgia Department of Community Affairs, Office of Coordinated Planning) opted for including a simple point system in the model code that contains standards for the adequacy of facilities.

§5-5 References

Exner, Marlene, and Russell Sawchuk. 1996. The Performance-Based Planning Model Final Report. Prepared for The Town of Morinville and Canada Mortgage and Housing Corporation. Edmonton, Alberta: Steppingstones Partnership, Inc.

Jaffe, Martin. 1993. Performance Zoning: A Reassessment. *Land Use Law & Zoning Digest*, 45, 3: 3-9.

Porter, Douglas R. January 1998. Flexible Zoning: A Status Report on Performance Standards. *Zoning News*: 1-4.

Porter, Douglas R., Patrick L. Phillips, and Terry J. Lasser. 1988. *Flexible Zoning: How It Works*. Washington, DC: Urban Land Institute.

§5-6-4 Traffic Impact Studies Definitions

Regarding the definition of discretionary development proposal, local governments that do not have conditional use permits or historic districts (i.e., certificate of appropriateness requirements) should delete reference to these types of applications.

§5-6-5 Thresholds of Applicability

The Institute of Transportation Engineers (ITE) recommends that thresholds for traffic impact study requirements be established at 100 peak hour trips. That threshold is appropriate because 100 vehicles per hour can change the level of service at an intersection approach, and

because turn lanes may be needed to satisfactorily accommodate site traffic without adversely impacting through (non-site) traffic (Source: ITE, Traffic Access and Impact Studies for Site Development: A Recommended Practice, 1991). The table below provides illustrative land uses and thresholds which would trigger the requirement for a traffic study.

**DEVELOPMENTS MEETING THRESHOLDS
OF 100 PEAK HOUR TRIPS OR 750 DAILY TRIPS**

TRIP GENERATION LAND USE CODE	LAND USE DESCRIPTION (UNIT OF MEASURE)	THRESHOLD REQUIRING TRAFFIC STUDY (WEEKDAY)		
		A.M. PEAK HOUR	P.M. PEAK HOUR	TOTAL DAILY
210	Single-family Detached Dwelling (units)	134	99	79
221	Low-Rise Apartment (units)	213	173	114
233	Luxury Condominium/Townhouse (units)	179	182	n/a
252	Congregate Care Facility (units)	1667	589	349
310	Hotel (occupied rooms)	150	141	84
320	Motel (occupied rooms)	156	173	83
521	Private School (K-12) (sq. ft. GFA)	28,249	n/a	n/a
560	Church (sq. ft. GFA)	138,889	151,515	82,328
565	Day Care Center (sq. ft. GFA)	7,868	7,576	9,463
620	Nursing Home (beds)	589	500	288
710	General Office Building (sq. ft. GFA)	64,103	67,114	68,120
750	Office Park (sq. ft. GFA)	57,472	66,667	65,675
770	Business Park (sq. ft. GFA)	69,930	77,520	58,778
820	Shopping Center (sq. ft. GFA)	97,088	26,738	17,475
832	High-Turnover (Sit Down) Restaurant (sq. ft. GFA)	10,788	9,209	5,755
834	Fast-Food Restaurant with Drive-Through Window (sq. ft. GFA)	2,005	2,987	1,512
841	New Car Sales (sq. ft. GFA)	45,249	35,715	20,000
850	Supermarket (sq. ft. GFA)	30,770	8,689	6,726
853	Convenience Market With Gasoline Pumps (vehicle fueling positions)	6	6	2
861	Discount Club (sq. ft. GFA)	153,847	26,316	17,943
912	Drive-In Bank (sq. ft. GFA)	7,918	1,826	2,828

Note: GFA = Gross Floor Area. n/a = data not available
Source: Derived from Trip Generation, 6th Edition, 1997.

§5-6-17 Determination of Project and System Improvements

Under Georgia's Development Impact Fee Act of 1990, local governments are not lawfully able to charge developers for "system" improvements, or those improvements that benefit more than just a single project, unless they are charged their proportionate share through a development impact fee program. This ordinance was written to accompany a development impact fee ordinance for roads, something that most local governments have not adopted. However, an impact fee system is not required in order to implement this ordinance.

PART SIX: USE-BASED RESTRICTIONS THAT DO NOT USE A MAP

This part of the model code consolidates specific use regulations into an alphabetized list. If a local government does not want to prepare a land use districts map and regulate according to land use district, it can instead regulate only those uses that are the most concerning or troublesome. This module does not regulate the location of land uses according to a map of land use districts; hence, such land uses can be established anywhere in the local government jurisdiction, subject only to the locational restrictions of the specific use. However, some of the specific use regulations of this module may refer to one or more land use districts; if so, and the local government has not adopted land use districts, those provisions must be deleted.

§6-5-6 Odor Setbacks

The separation distances (setbacks) for animal feeding operations, presented above, were balanced with the North Dakota odor standard. North Dakota's odor standard makes an odor concentration of seven or more odor concentration units a violation of the standard at distances greater than one-half mile. Reported information indicates that the amount of odors produced by confined swine feeding operations are greater than amounts of odors produced by other livestock types. After odors are released from animal-housing or manure-storage structures, the atmosphere governs the downwind transport and dispersion of the odors. The strength of odors released into ambient air and transported from animal feeding operations depends on the construction of the animal housing and manure storage units and the topography of the site, as well as the type and number of animals. The Land Use Officer may take these variables into account when considering reductions of odor setbacks in cases where they would pose an undue hardship.

§6-5 References

Zoning Working Group for Animal Feeding Operations. 2000. A Model Zoning Ordinance for Animal Feeding Operations. Bismarck, ND: North Dakota Department of Health. There is also a Planning Advisory Service Report on this topic published by the American Planning Association.

§6-18 Home Business Uses

Zoning ordinances usually provide for small-scale occupations to be conducted within detached single-family dwellings of residential zoning districts. This module uses the concept of home occupation regulation, but applies it without a zoning map. This home business uses ordinance is recommended for small cities without zoning that have residential neighborhoods requiring protection from excessive commercial use of a home in a stable neighborhood. Though perhaps unlikely, anyone could open up virtually any type of commercial shop in the neighborhoods of unzoned, small cities in Georgia. Counties are also likely to have residential subdivisions not protected by zoning regulations that could be offered protection via this Ordinance.

Legal Counsel notes the possibility that this module could be considered "zoning" as defined in the state's Zoning Procedures Act. The area of single-family subdivisions to which this module applies could arguably create "districts" or "zones" (despite not being shown on a map), wherein home occupations are limited and some occupations are excluded. It is advised that local

governments adopting this module do so only in accordance with the Zoning Procedures Act, just to be safe.

§6-18-7 Business Registration Required

The local government does not necessarily need to have a business registration process to enforce this ordinance. Some communities choose not to require business licenses, and they save significant administrative costs but possibly also forego revenue. However, some communities with zoning require annual renewal of home business licenses and charge an annual fee for the home occupation permit. This is a local choice.

§6-18-9 Use of Dwelling and Physical Limitations

The definition of home business use in this code allows the use of accessory buildings, and this provision permits use of accessory buildings in connection with a home business use. Some home occupation ordinances prohibit use of an accessory building in connection with a home business use. If the local government wants to prohibit use of accessory buildings for home business uses (not recommended), then this provision and the definition of home business use will need to be modified.

§6-18 Reference

Wunder, Charles. 2000. *Regulating Home-Based Businesses in the Twenty-First Century*. Planning Advisory Service Report No. 499. Chicago: American Planning Association.

§6-22 Manufactured Home Compatibility Standards

The subject of manufactured homes deserves extensive commentary prior to presentation and discussion of a model code on manufactured home compatibility standards.

Whatever one's views regarding manufactured housing, it cannot be disputed that the manufactured housing of today is quite different from the mobile homes of 20 or more years ago. "Mobile homes," as they are commonly thought of, are no longer being built, and "manufactured homes" have taken their place. Manufactured housing is much more like traditional site-built housing than was the traditional mobile home. The manufactured housing industry contends that there is no appreciable difference between the two; nevertheless, manufactured housing is generally thought of as being "alternative housing" meaning, an alternative to site-built housing. Being generally less expensive than site-built housing, manufactured housing is also considered to provide viable housing opportunities for low-income families.

Federal Preemption of Construction and Safety Standards. Manufactured homes are regulated nationally by The National Manufactured Housing Construction and Safety Standards Act of 1974, 42 U.S.C. 5401 et seq.; 24 CFR Part 3280 and Part 3282. The U.S. Department of Housing and Urban Development (HUD) administers the national manufactured housing program. It was established to protect the health and safety of the owners of manufactured homes. Under the program, HUD issues, monitors, and enforces federal manufactured home construction and safety standards. The standards preempt state and local laws that are not identical to the federal standards. HUD may enforce the standards directly or by various states that have established State Administrative Agencies (SAAs) in order to participate in the program.

What aspects of manufactured homes can local governments regulate? The legal validity of local regulation of manufactured housing is complicated by the fact that construction, safety, and energy standards for manufactured housing are regulated by the federal government. State and local governments are "preempted" by federal law (the National Manufactured Housing Construction and Safety Standards Act of 1974) from enacting construction, safety, and energy standards that are stricter than those established by federal regulations adopted by HUD. However, it is generally acknowledged that federal legislation does not limit the authority of local governments to regulate the location and appearance of manufactured housing, as long as they do not do so based on compliance or noncompliance with more strict construction, safety, and energy standards.

In Cannon v. Coweta County, 389 S.E.2d 329 (1990), the Georgia Supreme Court struck down a county zoning ordinance that prohibited siting manufactured homes in areas other than in manufactured home parks because the ordinance was not sufficiently related to the public health, safety, and welfare, and thus, not within the scope of the county's zoning authority. Exclusion of manufactured homes as of 2003 appears to be considered legally acceptable. In a case decided March 10, 2003, by the Georgia Supreme Court (King v City of Bainbridge), the City prevailed against a challenge that its zoning regulations were unconstitutional. The King decision overruled the longstanding legal precedent established in Cannon v Coweta County that posed more restrictive legal boundaries for local zoning ordinances.

In Georgia Manufactured Housing Association, Inc. v. Spalding Co., 148 F.3d 1304 (11th Cir. 1998), the Eleventh Circuit Court of Appeals upheld Spalding County's zoning ordinance, which imposed a 4:12 roof pitch requirement on manufactured homes. The Court overruled the lower district court's decision that: (1) the local roof pitch requirement impaired the Federal government's superintendence of the manufactured home industry; (2) the requirement had no substantial relation to the promotion of safe, attractive, and affordable housing; (3) the requirement unduly burdened interstate commerce; and, (4) the ordinance violated the plaintiffs' substantive due process rights. The Eleventh Circuit held that the roof pitch requirement was an aesthetic standard that fell outside the preemptive reach of the Manufactured Housing Construction and Safety Standards Act. In a footnote, the Court criticized its own 1988 Scurlock v. Lynn Haven decision, which broadly interpreted the preemptive scope of the Act. The Court also found that the ordinance satisfied the rational basis test because its purported purpose was to further aesthetic compatibility. Finally, the Court dismissed the argument that it burdened interstate commerce, because it treated all manufactured home manufacturers equally, regardless of their location. Source: Summary of State Laws and Court Decisions Regarding the Zoning, Placement and Tax Treatment of Manufactured Housing, Manufactured Housing Institute. http://www.mfqhome.org/DR_state_laws_map.html.

The subsections in this Code Section provide three optional gradations of manufactured home compatibility. Type 1 compatibility standards are the minimum architectural standards considered necessary and are recommended to apply everywhere in a given local government jurisdiction. Type 2 compatibility standards provide a greater amount of architectural compatibility and are appropriate for manufactured homes being infilled on vacant lots in neighborhoods containing predominantly site-built single-family residences. Type 3 compatibility standards are intended to apply within areas of upscale homes and adjacent to or within properties listed on the National Register of Historic Places, locally designated historic districts, other design review districts, and similar areas where the impact of an unregulated manufactured home could have significant impacts on the character and aesthetics of its surroundings.

For additional assistance. The manufactured home industry takes an active role in reviewing and commenting on local ordinances that regulate manufactured homes. Local governments are encouraged to work with the manufactured home industry in preparing their regulations. Contact: Georgia Manufactured Housing Association, 1000 Circle 75 Parkway, Suite 060, Atlanta, GA 30339. 770.955.4522

§6-22-2 Definitions

Except for the definition of manufactured home, these definitions are needed only if the local government adopts Type 3 compatibility standards.

§6-22 Reference

Sanders, Welford. 1993. *Manufactured Housing Site Development Guide*. Planning Advisory Service Report No. 445. Chicago: American Planning Association.

§6-23 Manufactured Home Parks

This module is written as a “catch all” ordinance to regulate manufactured home parks, recreational vehicle parks, and recreational vehicle campgrounds. If the local government has more limited purposes, it may consider modifications to tailor the language herein to more limited purposes. For instance, if the city or county has no likelihood of the need for campground regulations, it would be appropriate to change the language in this model code.

§6-23-5.2 Perimeter Buffer or Landscape Screen

Some communities may wish to allow as a substitute for or perhaps require in addition to the perimeter buffer a solid wooden fence at least six feet high. However, there may not be a need to “wall off” the manufactured home park on all sides, so a fence requirement is not included in this model code. A fence may be appropriate as a condition of a variance to the perimeter buffer requirement, if there is hardship involved in providing the minimum 20-foot width.

§6-23-5.3 Open Space and Recreational Areas

Bair (1965) recommends eight percent minimum open space for manufactured home parks. Schneider (1977) finds that for recreational vehicle parks the minimum open space ratio ranges from eight percent (the most commonly found) to 40 percent.

§6-23-6.2 Width, Depth, and Size of Spaces and Markings

This space size is designed to be large enough to accommodate a double-wide manufactured home. In the case of a recreational vehicle campground, these space sizes might be considered too large. For instance, Schneider (1977) finds that for recreational vehicle campsites, a space of no more than 1,500 square feet is needed, and “to provide campsites larger than 1,500 square feet would result in more disturbance to natural vegetation than is necessary.” In the case of a recreational vehicle campground, the Resolution [Ordinance] might provide for a smaller space size or alternatively, that the Land Use Officer or Board of Appeals may approve reduced widths, depths, and sizes of the spaces and distances between units for recreational vehicles.

§6-23-6.4 Use of Spaces

As distinguished from a manufactured home, this model ordinance defines “mobile homes” as homes constructed before 1976, and which do not meet federal standards. Due to the safety hazards inherent in not having a federal inspection, and considering the fact that such structures are now at least 25 years old and have little if any remaining value, mobile homes should be banned outright from a community.

This model ordinance does not place limitations on the duration of occupancy. In the case of a recreational vehicle, local policy must come to grips with the sensitive issue of whether recreational vehicles are appropriate for long-term and even permanent occupancy. Some jurisdictions may wish to place limitations on the permanent occupancy of recreational vehicles within campgrounds or manufactured home parks, because of the impacts permanent residents will have on local community facilities, such as schools. Typically, length of stay regulations limit occupancy to 30 days in any 60-day period; no more than 90 days in any 120-day period; or no more than six months in any 12-month period. Some ordinances prohibit permanent occupancy of recreational vehicles altogether (Schneider 1977) or do not permit them in manufactured home parks.

§6-23-6.10 Maximum Density

Ten units per acre is the maximum density that can be accommodated given the development standards suggested in this model Resolution [Ordinance] (i.e., space sizes, percentages of open space and active recreation, road requirements, etc.). Local governments might opt to establish a lower density, such as eight homes or vehicles per acre, to avoid an appearance of overcrowding. However, as noted by Bair (1965), who does not specify a maximum density in his model ordinance for mobile home parks: “If spacing and yards are adequate and suitable sewerage, water supply, access, and interior streets, off-street parking, recreational space and community facilities are required, a type of direct performance standards has been applied which make crude density limits unnecessary in the achievement of the objectives of public controls.”

§6-23 References

Bair, Jr., Frederick H. 1965. *Local Regulation of Mobile Home Parks and Travel Trailer Parks and Related Facilities*. Chicago: Mobile Homes Research Foundation.

Forsyth County, Georgia, *Unified Development Code*. 2001. Article XI, R-4 Manufactured Home Park District.

Sanders, Welford. 1993. *Manufactured Housing Site Development Guide*. Planning Advisory Service Report No. 445. Chicago: American Planning Association.

Schneider, Devon M. 1977. *Zoning for Recreational Vehicle Parks*. Planning Advisory Service Report No. 326. Chicago: American Society of Planning Officials.

§6-30 Planned Unit Development

PUD ordinances are typically adopted only as a part of (and a reformist alternative to) a conventional zoning ordinance. Because a property not governed by zoning (or land use intensity) districts would not be restricted as to general use, there would be no real need to specifically authorize mixed uses absent a zoning code. Juergensmeyer and Roberts (1998,

328) characterize PUDs as a “union of cluster zoning and subdivision platting” and a “route around traditional zoning” (p. 331). Therefore, the PUD ordinance module is not likely to be a stand alone ordinance. Rather, it is better suited as an appendage to a zoning ordinance or land use intensity district scheme, such as that found in this Model Land Use Management Code. This ordinance as written relies on certain other components of the Model Land Use Management Code.

Planned unit development (PUD) ordinances have actually been around since the 1920s (Juergensmeyer and Roberts 1998) but became a viable alternative in earnest by the 1950s. They were not commonly practiced as a land use technique until the 1960s and were gradually accepted by the early 1970s (Kelly 1988). According to Robert Burchell (1972), the PUD was one of the first land use controls that enabled communities to control the tempo and sequence of development. Thus, the PUD had early significance as a growth management tool. PUDs can be compared to “new towns,” in that they are designed to permit the development of entire neighborhoods (Juergensmeyer and Roberts 1998). PUDs are usually built on a smaller scale, however, and often do not contain as logically balanced a mixture of land uses. PUD ordinances are often based on the principle that the development plan generally does not have to follow the regulations of the zoning district in which the development is located.

From an historical perspective, PUDs have served four primary purposes:

- Allow mixed uses. PUD ordinances provide a way of escaping the use segregation requirements of conventional zoning ordinances (Kelly 1988). By the 1960s conventional zoning was considered by some to be much too rigid and unable to accommodate different land uses in a single development. PUD ordinances were adopted by local governments because of criticisms of the rigidity of conventional zoning. PUDs arose as a way to permit a mixture of land uses (usually residential, with a mix of housing types and sometimes with some accompanying neighborhood commercial uses) that was otherwise not allowed by conventional zoning districts.
- Permit design flexibility and creativity. By the 1960s, critics began to question the monotonous, lot-by-lot design of residential subdivisions that was resulting from conventional zoning practices. Due to their flexibility in development standards, PUD ordinances encourage creative design. Some of the creativity and flexibility is suggested so that developers will use land more efficiently. PUDs are not usually subject to standard height, area (lot size) and setback controls that typical zoning districts require. Much greater variations in the location and grouping of buildings are allowed than with conventional zoning practices. Typically, the developer proposes a set of standards for development. If the standards and the development plan are approved, they are legally binding on the developer and the local government. PUD ordinances in essence throw out the existing zoning rules for a major development and substitute a set of special rules negotiated between the municipality and the developer (Platt 1996).
- Provide for more open space. PUDs provide for public and/or community open space that is typically not achievable under conventional zoning and standard subdivision platting practices. PUDs were initiated in part because under conventional zoning schemes the entire landscape usually has to be bulldozed to make a subdivision with the gridiron development pattern fit (Kelly 1988).
- Coordinate as one development. The conventional subdivision platting process has had the effect of discouraging large-scale projects, because larger projects take longer to build and are easily disrupted by changes in local regulations. In this sense PUDs share characteristics with a development agreement (see separate module by that title in this

Model Land Use Management Code), namely, establishing vested rights for multi-year projects. PUDs may consist of only one tract, or they may be subdivided into a number of tracts, but a key defining feature of a PUD is that it is developed as a single development. PUDs, particularly the larger ones, are likely to be developed in a sequence of coordinated phases, with residential development being constructed first and neighborhood commercial uses constructed later (if part of the PUD).

Legal Commentary: Because Georgia does not have a planning and zoning enabling act, PUDs are not specifically authorized as a land use tool. Since PUDs provide an alternative to conventional zoning, where uniformity of use is not secured, PUDs could conceivably be held invalid (Juergensmeyer and Roberts 1998, 330-331). However, PUD regulations are considered valid in Georgia, as they are widely practiced. If the legal authority for PUD regulation in Georgia does not emanate from constitutional zoning powers, then it is legitimately within the scope of local government home rule powers. PUD ordinances have been upheld in other states even where not specifically authorized by state enabling legislation (Juergensmeyer and Roberts 1998, 332).

§6-30-1 Purpose and Intent

The last three purposes (g, h and i) are not necessarily common to all PUD ordinances, but the other purposes are shared by most PUD regulations. Generally, PUD applications usually require the submission of more information (e.g., development statistics, a detailed site plan, architectural renderings, etc.) than required for applications for development under conventional zoning. Communities may not want to provide higher densities for PUDs, although an incremental increase in density is one way to create an incentive for better design.

§6-30-3 Permitted Locations and Uses

This code subsection addresses whether PUDs are permitted, and if so, where (i.e., what zoning district or what areas). PUD ordinances are typically adopted as a part of a conventional zoning ordinance. There are various alternatives for allowing PUDs. This commentary summarizes four approaches that code writers might take. As written, this module is linked to the land use districts module of the Model Land Use Management Code, as if the local government wants to add a PUD option as a “use” to its land use intensity district program. Instead of this section, or in addition, one should list planned unit developments as a permitted (or conditional) use in the list of uses provided in the land use districts module of the Model Land Use Management Code.

1. Allow PUDs as a permitted use in certain existing land use intensity (or zoning) districts (This is the approach taken here).
2. Permit PUDs as a “conditional” use (i.e., after public hearing and approval by the governing body).
3. Establish the PUD as its own separate zoning or land use intensity district (e.g., a “floating” or unmapped zone) that is permitted only after application by a developer and approval by the governing body. If this alternative is chosen, the PUD concept could easily be set up as a land use intensity district in the land use districts module. Communities that elect to adopt a conventional zoning ordinance (or the land use intensity district approach provided in this Model Land Use Management Code) could incorporate this Code section there as a separate district.
4. Establish a PUD overlay district. This alternative may be appropriate when communities want to apply PUD regulations to a certain, specific area.

§6-30-4 Dimensional Requirements

PUD ordinances are highly flexible in that they often allow developers to propose a mixture of land uses, the densities (which often are capped by the governing body to be compatible with surrounding land uses), building placement and other planning and design factors. Kelly (1988, 276) characterizes PUD ordinances as “zoning by negotiation” and a “standardless form of regulation.”

§6-30-4.2 Density

PUD ordinances establish an overall density rather than a minimum lot size to measure intensity of residential land use (Kelly 1988). This provision would establish an overall density for the residential portions of the tract. Another alternative is to allow a density “bonus,” or a density maximum that is slightly higher than what is otherwise allowed, as an incentive for good design, more open space and higher quality amenities. For instance, the maximum number of dwelling units per acre in residential areas of the PUD might be set at 120 percent of the gross density recommended by the future land use map of the comprehensive plan for the unit of land. Ordinance writers should also be careful to consider the distinction between “gross” and “net” density. Where the provision above refers to “gross” acreage, some other PUD ordinances calculate density on a “net” acreage basis.

§6-30-5.4 Retail component

Local governments should be realistic in terms of trying to require mixtures of retail uses within small PUDs. Sometimes it may not be economically feasible. Some local governments require a market study to ensure that the PUD can support neighborhood retail uses.

§6-30-6.1 Development Plan

Ordinances should specify that compliance with the development plan is required. This is necessary to avoid the mistake made in Cherokee County et al. v. Martin (253 Ga. App. 395, 559 S.E.2d 138) (2002), where the courts affirmed a developer’s right to build an apartment complex (as a part of a PUD application) even though it was not shown on the site plan, because the county did not specify compliance with the site plan as a condition of PUD zoning.

Some PUD ordinances specify a preliminary and a final development plan review process. For purposes of simplicity, only one step is required here.

§6-30-7 Approval Procedures

PUD development approval is generally granted at one time rather than on a phase-by-phase or lot-by-lot basis (Juergensmeyer and Roberts 1998). The procedure in this subsection is written so that the governing body has final approval of PUDs. Because the lack of pre-specified dimensional requirements, approval procedures for PUDs allow for bargaining between the developer and the local government, much like a development agreement (see module by that title in this Model Land Use Management Code).

Because of the negotiation involved in PUD approval processes, the issue of contract zoning may arise (Juergensmeyer and Roberts 1998, 331). Generally, Georgia courts hold that contract zoning is invalid but conditional zoning is valid. See Cross et al. v Hall County et al.

(238 Ga 709) (1977). As long as conditions of PUD approval are clearly related to actions which are needed to mitigate adverse impacts of a development proposal, and provided they are consistent with general laws, the negotiation of conditions of zoning as part of PUD application processes should be legally defensible.

Because PUD approval is most likely a “rezoning action” despite the manner in which the local government’s procedures are structured (e.g., a rezoning action, or a special use permit), PUD application processes should comply with the state’s zoning procedures law (O.C.G.A. 36-66).

§6-30-7.2 Recommendation and Approval Authority

Local governments must be sure in adopting this ordinance that they comply fully with the Zoning Procedures Law (O.C.G.A. 36-66). To fully implement this ordinance, the local government needs to have policies and procedures for calling and conducting a public hearing for rezoning applications. The procedures module of this Model Land Use Management Code satisfies those requirements and is referenced in this code provision. If the local government has not adopted that procedures module of the Model Code, the above language should refer to other adopted procedures.

§6-30-7.4 Revisions

Some PUD ordinances distinguish between minor revisions, which can be approved administratively by staff, and major changes which require approval by the governing body. Substantial changes should not be allowed to be approved administratively, as that may constitute an unlawful delegation of authority (Juergensmeyer and Roberts 1998, 334).

§6-30-7.5 Construction Plans

Local governments that include this provision need to adopt §4-1 of the Model Land Use Management Code or at least insert similar information regarding the submission requirements for development plans from that Code module.

§6-30-7.6 Permits and Certificates

This subsection assumes the local government issues building permits and certificates of occupancy. If it does not, this provision will require modification or deletion.

§6-30 References

Burchell, Robert W., with James W. Hughes, 1972. *Planned Unit Development: New Communities American Style*. Piscataway, NJ: Center for Urban Policy Research, Rutgers University.

Kelly, Eric D. 1988. Zoning. In Frank S. So and Judith Getzels, eds., *The Practice of Local Government Planning*, 2nd ed. (Washington, International City Management Association).

Jenkins, III, Frank E. 2002. Current Legal Issues in Zoning. Zoning Administrators Workshop Summer Conference, August 8-9, 2002. Cartersville, GA: Jenkins & Olson, P.C.

Jerry Weitz & Associates, Inc. September 2001. Planned Unit Development Ordinance Review. Cumming: Forsyth County, Georgia, Department of Planning & Development.

Juergensmeyer, Julian C., and Thomas E. Roberts. 1998. *Land Use Planning and Control Law*. St. Paul: West Group Hornbook Series.

Platt, Rutherford. 1996. *Land Use and Society: Geography, Law, and Public Policy*. Washington, DC: Island Press.

6-36 Signs

The objective of this module is to provide a relatively simple set of sign regulations that are “content neutral” and based entirely on “time, place, and manner restrictions.”

A regulatory distinction between off-premise and on-premise signs is difficult to make without creating problems under the Free Speech Clause (First Amendment) of the U.S. Constitution). A better approach, according to Mandelker (2001), is to regulate freestanding signs in all locations. A content-neutral time, place, and manner sign ordinance would not make the off-premise versus on-premise distinction and would not distinguish between commercial and noncommercial speech (Mandelker 2001). This module follows Mandelker’s recommendations (reference below).

Mandelker, Daniel R. 2001. Sign Regulation and Free Speech: Spooking the Doppelganger. In Patricia E. Salkin, Editor, *Trends in Land Use Law from A to Z: Adult Uses to Zoning*. Chicago: American Bar Association.

§6-36-5 Nonconforming Signs

O.C.G.A. § 32-6-83 requires a city or county to pay just compensation for an outdoor advertising sign which was lawfully erected but later fails to conform to an ordinance due to changed conditions beyond the control of the owner. A local government may not require to removal of a nonconforming outdoor advertising sign if its nonconforming status is not the fault of the owner, unless, of course, the local government compensates the owner.

§6-36-9 Sign Permit and Building Required

Jurisdictions that do not enforce building codes may delete the provisions of this subsection relating to the securing of building and electrical permits, since they are not being required in the jurisdiction. However, applicable state standard codes whether or not they are locally enforced in the jurisdiction.

§6-36-10 Certificate of Appropriateness

This provision is included for jurisdictions that have adopted the “Historic Preservation” module of this Land Use Management Code. It can be deleted in jurisdictions that have not adopted said module.

§6-36-15 Height of Ground Signs

This sign regulation module assumes that the jurisdiction has adopted the land use districts module of this land use management code. If that is not the case, the jurisdiction will need to substitute alternative height provisions for signs.

§6-36-18 Types of Signs and Maximum Sign Area Permitted

This sign regulation module assumes that the jurisdiction has adopted the land use districts module of this land use management code. If that is not the case, the jurisdiction will need to substitute alternative provisions for sign types and maximum area limitations, perhaps by type of land use rather than land use district.

§6-36-21 Variances

This subsection references Section 1-10 of this land use management code, which must be adopted, unless other provisions for variances are provided in this Code Section on signs.

PART SEVEN: MAPPED APPROACHES TO LAND USE REGULATION

§7-1 Agricultural Lands

This module of the model code is considered more applicable to unincorporated lands (i.e., counties). However, certain small cities have significant amounts of land classified as agricultural use and may have a policy to protect existing agricultural lands within the city limits. Such cities may wish to consider adopting this module, but the width of the agricultural buffer requirement and notice requirement are probably too extensive to be applied within or near developed areas of cities. For that reason, cities that apply this module should carefully consider reducing the agricultural buffer requirements and distance for which notice is required.

§7-1-3 Official Designation of Agricultural Lands

Most agricultural protection ordinances apply within the context of zoning districts and a zoning map. Because this model code does not assume a zoning map will be adopted, there must be another way found to designate agricultural lands and operations other than an official zoning map. Options, in lieu of a zoning map showing agricultural districts, are as follows:

1. Existing Land Use Map. The ordinance could refer to, or adopt by reference, the local government's map of existing land use which shows existing agricultural uses. This option is NOT recommended, because the comprehensive plan in Georgia does not have the force of law (unless local legislation states otherwise), and because the mapped areas in the comprehensive plan probably do not relate sufficiently to the specific purposes of the regulation.
2. Future Land Use Map. The ordinance could refer to, or adopt by reference, the local government's map of future land uses, which shows agricultural lands to be preserved or protected. This option is NOT recommended, primarily for the same reasons as using the existing land use map.
3. Tax Parcel Data With or Without a Map. About the only way to implement this module of the model code WITHOUT a map of agricultural lands and operations would be to use County Tax Assessor's data showing which properties are "bona fide" agricultural uses per Georgia law. One might consider designating, as agricultural lands and operations, all property that is used as agricultural land and timberland and which is qualified by the County Board of Tax Assessors for preferential assessment of bona fide agricultural property use assessment under O.C.G.A. Section 48-5-7.1. Unless these tax parcels can be accurately mapped, however, the use of taxation data alone is not recommended. Without a map, property owners will not be able to visualize how the regulations apply (and to whom), nor will the Land Use Officer be in a very good position to administer the regulations without a map.
4. Soil Survey Map. The county or city might designate agricultural lands as all soils identified in the county's soil survey (Natural Resource and Conservation Service) as Classes I and II soils. Said classes are the most valuable in terms of agricultural production. Soil surveys are an important source of data on which to base a map of agricultural lands and operations. It is possible that the soil survey could be adopted by reference and the regulations made applicable to certain soils. However, this option is NOT recommended because soil maps are difficult to relate to property boundaries—both property owners and the Land Use Officer would have a difficult time understanding and interpreting the boundaries.
5. Map of Agricultural Lands. The prior alternatives are inadequate. To implement this module of regulations, it is strongly recommended that an official map of agricultural

lands be prepared and adopted. Professional assistance is recommended in preparing the map, which should be drawn only after consideration of county soil surveys, existing land uses, and the potential impacts of specific agricultural land uses.

§7-2 Agricultural Use Notice and Waiver

One cannot be sure that the waiver is legally enforceable, as there is no statute or case that has dealt with this issue. However, that should not deter use of the waiver. If a map is used to identify agricultural land, this module may be subject to the Zoning Procedures Act. Thus, it is highly recommended that if adopted it be in accordance with the Zoning Procedures Act.

§7-4 Land Use Intensity Districts and Map

Most of the regulations contained in this model code are designed to provide alternatives to a zoning district and map approach. This module is basically a zoning ordinance but does not use the word “zoning.” Instead, it calls the districts “land use intensity” districts. This module is intended to provide a rather simple model of zoning that could fit a small city or a rural county. Since it has been written for both, it will require modifications as noted in other commentary provided along with this module. Several other modules can be adopted with this module, and some such as administration, enforcement and appeals (Part One) and procedures (Part Seven) are considered essential to the functioning of this module.

§7-4-3 Establishment of Land Use Intensity Districts

This model land use intensity district ordinance uses the term “land use intensity district” to avoid use of the term “zoning.” It is designed to apply to both rural counties and small cities; however, some of the districts are appropriate only in small cities, while others are appropriate only in rural unincorporated areas. The table below provides recommendations for the applicability of land use intensity districts. All of the districts are potentially applicable in small cities, with the exception of the AG district. An ordinance for a rural county might have as few as four or five districts: AG, RR, NC (perhaps), HB, and LI.

LAND USE INTENSITY DISTRICT	APPLICABLE TO SMALL CITIES?	APPLICABLE TO RURAL COUNTIES?
Agricultural District (AG)	Unlikely, not written for small cities	Yes
Rural Residential District (RR)	Maybe	Yes
Suburban Residential District (SR)	Yes, if public water is available	Only in areas served by public water
Urban Residential District (UR)	Yes if public water and sewer is available	No
Office Residential District (OR)	Yes	No
Neighborhood Commercial District (NC)	Yes	Maybe
Highway Business District (HB)	Yes	Yes
Central Business District (CBD)	Yes, for downtowns	No
Light Industrial District (LI)	Yes	Yes

§7-4-6 Land Use Intensity Districts, §7-4-6.1 Agricultural District (AG)

The AG district, as written, allows single-family dwellings and manufactured homes outright when they are clearly incidental to farm/agricultural uses. It restricts the subdivision of land to lots with 10 acres or more for reasons explained in the purpose statement. This district does allow “intra-family land transfers” (see section above and definition), which allows an exception of sorts to the 10 acre lot size, but only for transfers for love and affection to family/relatives. Singling out intrafamily transfers may not provide equal protection to non-family members (who would have more or less the same land use impacts), and thus, raises some legal issues. However, it is believed that exempting or providing special treatment of intra-family land transfers is a common practice in rural Georgia. It is a tool that may gain political acceptance of an agricultural preservation restriction (i.e., a 10-acre minimum lot size) that might otherwise be considered too restrictive to county elected officials.

§7-5 Interchange Area Development

There are several instances in Georgia where portions of counties are ripe for land use regulations, but the remainder of the county is too slow-growing to justify being subjected to a comprehensive, conventional zoning ordinance. Therefore, partial zoning schemes have great potential for applications in rural Georgia counties. This module presents a set of development regulations for a highway interchange area that can be adopted as a stand-alone ordinance with the addition of just a few other provisions from the model code. It is based on an interchange overlay zone model ordinance prepared by the Clearwater Conservancy for municipalities in Centre County, Pennsylvania. However, the interchange area development ordinance presented in this module is not a partial zoning scheme per se, because it does not regulate the uses of land within the jurisdiction. Rather, this ordinance is best considered a set of development regulations that apply to a limited area within a local jurisdiction.

This module is written so that it could technically be adopted with just a description of the area regulated, as opposed to an area shown on a map. It is desirable to prepare and adopt a map of the area, if possible. See 7-4-4 of this model code for language that can be inserted in cases where a map is provided of the area regulated.

Local governments that have development issues within highway “corridors” rather than at interchanges can easily adapt this ordinance to fit their needs. To apply this module to corridors instead of interchange areas, the definitions provided and the illustration of interchange area boundary would no longer be needed. A simple definition of corridor could be added, such as “any parcel of land located wholly or partially within 500 feet of either side of the right-of-way of U.S. Highway ___ [State Route __].” The applicability section (7-5-5) would also need to be amended to refer to the definition of corridor rather than interchange area.

Legal Counsel recommends that, although this is not a zoning ordinance, for safety, it should be adopted in accordance with the Zoning Procedures Act.

§7-6 Mixed Use District

There are many ways that mixed-use development can be integrated into a local land use code. First, for local governments that have adopted the Land Use Intensity Districts module (see §7-4 of this code) or a conventional zoning ordinance, this mixed use district module could be added as another land use district to “Establishment of Land Use Intensity Districts” in that module (or as a new zoning district to a conventional zoning ordinance. Note that, if this module is added to §7-4 of this code, then modifications to “Parking” in that module are advisable, since mixed use districts often include reduced parking requirements. This mixed use district module can also be treated similarly as “Planned Unit Development.” (see part six of this Model Code). That module serves as a very flexible development district that can accommodate mixed uses; refer to commentary regarding that module for additional guidance.

No single set of suggestions can be generalized to all types of mixed use character areas that might be identified by local governments as a part of their community visions and future development maps. Indeed, there are several different scales of mixed use development. For instance, the typical zoning ordinance allows for a home occupation to be conducted in a single-family dwelling. Such permission allows the resident to mix a compatible business or office use into a home within a neighborhood or subdivision of predominantly residential uses. In this Model Land Use Management Code, a unique “home business use” module is provided (see §6-18), rather than the conventional home occupation provided for in most conventional zoning ordinances. Another type of mixed use development at the individual lot scale is the “Live/Work Unit.”

One of the most frequent applications of mixing land uses is to allow neighborhood commercial (e.g., retail and service) uses to be located within or next to predominantly residential uses. As noted above, the “Planned Unit Development” provisions of this model code provide an option for that type of mixed use. Another increasingly popular option for mixing land uses is what might be called “Main Street” mixed use – where buildings containing retail and service uses on the ground floor and residential and/or office on the upper floor are the hallmark characteristic.

The first module prepared with mixed use in mind was §9-1, “Downtown Specific Plans.” That module was written so that it could be applied generally to small downtowns in Georgia’s cities, which often have a mixed use character. The vision expressed in §9-1 is highly compatible with the purpose of this mixed use district module: to provide in a downtown for an “area that is a compact assembly of storefront buildings, short walkable blocks, mixed uses, pedestrian amenities, consolidated off-street parking, and on-street parking” The purposes of that module have also been integrated here since they are identical.

Two more recent additions to this model land use management code include several provisions that are considered basic ingredients of mixed use district codes. The form-based code and composite zoning modules (see §9-6 and §9-7, respectively) also have provisions that are entirely relevant for mixed use district ordinances, and hence, there is some overlap with those modules.

Those sections of the model code that pertain to mixed-use development are comprehensively integrated into this module, rather than simply referencing them here, for purposes of user friendliness and ease of amendment.

§7-6-3 Definitions, Mixed Use, Vertical

Some mixed-use ordinances allow residential uses only on the upper stories above ground floor non-residential use. However, allowing residential on ground floors behind storefront space may be viable, and should therefore not necessarily be excluded, so long as the design is consistent with the storefront character.

§7-6-4 Permitted Uses, §7-6-4.1. Development Concept

In lieu of this subsection, the areas might be defined in terms of a village or activity. The specifications provided below, from Randall Arendt, provide such an alternative, which may only be workable for larger mixed-use developments (e.g., 40 acres or more).

The mixed-use development may provide for the following four distinct use areas:

- (a) Village residential areas that are predominantly though not exclusively detached single-family neighborhoods.
- (b) Village conservancy areas which are permanently protected open spaces, including greens, commons, conservation areas, and woodland preserves.
- (c) Central residential area intended to contain a variety of housing options and related uses, including attached dwellings and live/work units.
- (d) Storefront area, providing uses that meet the retail and service needs of a traditional community center and its vicinity, and other mixtures of uses including civic buildings, institutional uses, and residences.

§7-6-4.2 Comprehensive Plan

A provision of this sort may help avoid mixed-use development proposals in inappropriate locations. City and county land use plans may specify an area is appropriate for mixed-use, in which case applying the mixed use district would of course be appropriate. Also, a land use plan may specify different, single-function land uses in close proximity to one another. In such instances, this provision gives the local government a reason to deny a mixed-use development proposal that deviated significantly from the recommendations of the comprehensive plan.

§7-6-4.3 Permitted Uses

If the mixed use district is being added to §7-4 or a conventional zoning ordinance, and that ordinance contains a matrix (list) of permitted uses, it is best that the same organization be used, and that the uses permitted be shown in that same table. Generally, the intent of many mixed-use districts is to allow residential land uses to be mixed in the same building with office, civic-institutional, and/or retail/service uses. For that reason, the mixed use district might simply provide for those general categories of land uses without further specification. Note: For definitions of these uses, see §7-4 of this model code.

§7-6-4.5 Detached, Single-family Dwellings

This provision prevents predominantly residential subdivision development, since such subdivisions, when built conventionally, do not take on characteristics of mixed-use development and such extensive, single-function development would tend to work toward more limited connectivity among the land uses. Consideration should be given to lowering that

standard further (i.e., to 50-60%), in order to ensure a more compact development pattern. On the other hand, if very small, urban-sized lots (i.e., 4,000 to 6,000 square feet) are provided in a grid pattern, this provision may begin to prevent an appropriate traditional neighborhood development.

At first glance, it seems contrary to mixed use development principles to require a two-car garage, since the overall intent of mixed use development is to encourage alternative modes and providing for garages just seems to recognize dominance by the automobile. However, Gwinnett County, Georgia's mixed use district requires a two-car garage, and the intent is not to have a lot of cars dominating the scene of the residential subdivision. Without requiring garages, parking will often take place in the driveway in front of the dwelling. Note that this subsection has provisions to prevent the garages from dominating the street scene.

§7-6-5 Additional Use Provisions and Limitations for Storefront Retail Areas

It can be important to reserve the community's supply of pedestrian retail spaces in storefront areas to retail and service use. Some communities have found it necessary to prohibit "storefront churches" and other uses that would not contribute to pedestrian interest (since churches meet infrequently and will not usually be open consistently during regular business hours). Similarly, a significant number of dwellings on the ground floor would also detract from the purposes of pedestrian retail districts, since they would not generate visual interest with display windows. Furthermore, principal uses involving manufacturing could also take away from the function of store front or pedestrian retail areas unless limited.

§7-6-5.3 Retail and Service Components

An average size grocery store reportedly needs at least 10,000 persons to support it (i.e., market threshold or "critical mass"). A small corner grocery store, on the other hand, might be supported by as few as 500 persons (approximately 200 dwelling units). Not all of the people have to live within the mixed use project to support commercial in a mixed use project, if the commercial is located on an arterial road that has significant passer-by traffic. For this reason, specifying minimum amounts of commercial space is probably viable along such arterials with substantial traffic counts. For small mixed-use developments not fronting on an arterial, however, developers of mixed-use projects may not be able to make a retail component work.

§7-6-6 Recommendations for Mixtures of Mixes

A review of mixed-use ordinances in support of this module reveals that there are wide variations in how local governments approach the issue of how much of one land use or another constitutes a good mix. The appropriate mix of land uses depends on many factors, including the scale of the development, local objectives, market conditions, and the mix of nearby and adjacent land uses (which should be considered in the development approval). For instance, it might be appropriate to have a mixed use development proposal that was predominantly residential, if nearby developments were primarily retail/service and/or office and professional land uses. Due to these variables it may be appropriate to allow maximum flexibility on the part of the mixed use developer to propose a mix of uses. Nonetheless, some communities may be uncomfortable providing for such flexibility, and for that reason, guidelines and specifications for mixing land use are provided in this module. These provisions should be carefully considered in the local context, and only those that are considered essential should be adopted.

It must also be recognized that, in order to specify mixes of uses, one has to measure the intensity of uses in some way (i.e., by land area within the mixed use development or by the square footage of buildings within the mixed use development). As this module indicates, it may be most appropriate to use land area as the metric for specifying mixes of uses in horizontal mixed-use development, while building area (square footage) is the more appropriate metric for specifying mixes in vertical mixed-use development. The most important thing to keep in mind is that any such specifications for mixing land uses must be clear on what basis (land area or building area) the mixture of uses will be calculated. The following ranges, by percent of land area within the mixed-use development, have been recommended in the new urbanism literature (see Peter Calthorpe, “The Regional City,” in *Time Saver Standards for Urban Design* (New York: McGraw-Hill, 2003).

Use (land area within the development)	Neighborhood Activity Center	Urban Activity Center
Public and institutional	10% – 15%	5% – 15%
Core (retail/employment)	10% – 40%	30% – 70%
Housing (various types)	50% – 80%	20% – 65%

§7-6-6.1 Minimum Vertical Mixed Use Requirement

This provision was not found in mixed-use district ordinances reviewed in support of this model code provision. To employ this type of provision reduces flexibility and prevents an exclusively horizontal mixed use development. On the other hand, including it helps to ensure that every mixed-use development has at least one area that has vertical mixed use, thus helping to create a sense of place that may otherwise not be achieved with single-use developments planned together as a unit (i.e., horizontal mixed use).

§7-6-6.3 Minimum Open Space

Based on a review of other mixed-use district ordinances in support of this module, the trend appears to be toward a smaller amount (10-15%) of open space required for horizontal mixed-use developments. However, Georgia set a policy standard of 20% when the Georgia Greenspace Commission was established, and several local governments eligible for greenspace funds under that program (which is now inactive or modified) have adopted greenspace plans that call for 20% of their land area set aside as permanent greenspace. For that reason, 20% is recommended here.

§7-6-7.3 Maximum Height

The height of a building story is approximately 12 feet, sometimes as much as 15 feet. A maximum height of 50 feet would allow at least three stories, perhaps a four-story building. Some ordinances specify a maximum height in terms of feet and the number of stories. A multi-story parking deck might be needed, and at approximately 8 feet per story of a parking deck, perhaps 9 feet, a 50-foot height allowance would provide for a 5 or 6-story parking deck. If the community has limited heights to less than that provided here, it may want to make this height limit consistent with that existing provision.

§7-6-7.4 Height and Mass Transition or Step-Down Adjacent to Residential

This provision is important if a mixed-use development might be located adjacent to conventional residential neighborhoods. For instance, in a suburban or even urban context, a

building four stories in height would be inappropriate next to a residential neighborhood containing one- or two-story dwellings.

§7-6-7.5 Floor-Area Ratios

The upper limit of suburban highway commercial/shopping center development is approximately 15,000 gross square feet per acre, or a FAR of 0.34. That FAR appears to be the upper limit of what can be established and still be served with all parking on the surface of the property. Additional FAR above 0.34 would most likely require a parking structure (i.e., decked parking). The City of Atlanta, on the other hand, allows a residential FAR of 1.49 and a nonresidential FAR of 1.50, for a total FAR of 2.99, in its neighborhood commercial district. Local governments are encouraged to give extensive consideration to the most appropriate densities, and this recommendation here falls somewhere in between what would be expected to be applied in Georgia's communities.

Use	Maximum FAR	Square Feet or Units Per Acre	Example 1: 1-acre (43,560 square foot) site of vertical mixed-use	FAR Provided Example 1	Example 2: 1-acre (43,560 square foot) site of vertical mixed-use	FAR Provided Example 2
Maximum, nonresidential development	0.50	21,780 square feet per acre	21,780 square feet	0.50	10,890 square feet	0.25
Maximum, residential development	0.50	21,780 square feet per acre	10,890	0.25	21,780 square feet	0.50
No. of Dwelling Units @ 1,500 square foot avg.	--	--	7.26	--	14.52	--
Total, mixed use development	0.75	32,670 square feet per acre	32,670	0.75	32,670	0.75
Building Configuration (Illustrative)			1 st story retail, 2 nd story office, 3 rd story residential		1 st story retail, 2 nd and 3 rd stories residential	

Note that, given the maximum FARs recommended in the table above, a three-story vertical mixed-use building is anticipated, one that either has retail/service on the ground floor, a second floor that is office, and a third floor that is residential; or one that has retail/service on the ground floor, and the second and third stories being comprised of residential space. The table below illustrates these two options. Also note that a single-floor does not have to (is not required to) be devoted exclusively to one particular land use.

§7-6-7.6 Floor Area Per Dwelling Unit Requirements for Vertical Mixed Use

Note that establishing both a maximum residential FAR (which limits the residential floor area) and an average dwelling unit size avoids the prospect of a developer choosing to build all small units of 600 square feet each, or all large (2,400 square foot) units. This provision should force a diversity of unit sizes, and in doing so, the mixed use development is likely to serve a diversity of market needs.

Some mixed use districts establish density limitations on the basis of units per acre. Decatur, for instance, allows densities of 60 units per acre or more in its downtown. Gwinnett County's mixed use overlay district allows a maximum of 32 units per acre, with a provision that the governing body may reduce maximum project densities on a case by case basis at the time the

mixed use overlay district is applied to specific properties. This module does not use dwelling units per acre as a regulation.

§7-6-8.2 Building Frontage Requirement

Minimum building frontage is a land use regulation designed to ensure that the development has a street “presence.” If the buildings do not frame the street, they will not be as inviting to pedestrians.

§7-6-10.3 Off-Street Parking Location Limitations

Some communities may find this provision too restrictive, as some retailers believe they must have some parking visible in front of the retail building. One possible modification of this provision is to set a maximum percentage of required parking that can be located between the sidewalk and front of building.

§7-6-11.3 Block Size and Width

Maximum block widths and maximum block perimeters are employed in some character areas in order to keep the scale of development small and allow for short distances navigable by pedestrians. A maximum block width is most commonly used. However, maximum block perimeters can also be employed so that irregular-shaped lots and blocks do not become too large (since walking distance is affected by block depth as well as block width. Blocks become smaller in urban areas, and the smallest block perimeters are those in downtown cores, where streets intersect at as close an interval as 300 feet.

§7-7 Scenic Corridor Overlay District

As with most of the modules included in this Model Code, there are various alternatives as to how it may fit into a local government’s development regulations. A scenic corridor designation could be applied locally as its own land use intensity district, thus it could be incorporated into §7-4 of this Model Code. The approach taken here, however, is to add the scenic corridor regulations as an overlay district. This module is written to fit with §7-4 of this Code; if the local government has not adopted §7-4 or another land use district or zoning scheme, then the approach taken here will need to be modified. With only slight modifications, this module can be adopted as a stand-alone ordinance in areas that do not have underlying land use or zoning districts.

The comprehensive plan should be consulted as it relates to scenic views and sites (see natural and historic resources element). Additional work to inventory and assess resources will probably be needed. There are a variety of scenic resource protection and enhancement strategies and techniques that might apply in any local scenic corridor protection program. Inventorying scenic resources using acceptable techniques is a critical component of any scenic corridor planning and regulatory program. Inventory and assessment techniques include review of local historic resources inventories (if available), windshield surveys of natural features and land uses within potential scenic corridors, and analyses of ecological, physiographic and hydrological characteristics of the landscape from available maps and field reconnaissance. Methods used in determining which roads merit “scenic” designation vary, but they are usually based on the professional judgments of experts, often landscape architects.

Public roadway features, such as signs, roadside erosion control, drainage and materials storage certainly have a major impact on the scenic quality and character of a scenic corridor. Local governments should give equal attention to managing the public right-of-way portion of the scenic corridor. These are “non-regulatory” considerations and, therefore, are not discussed here.

§7-7-3 Scenic Corridor Designation

An overlay district can be shown as a separate map or incorporated into the land use intensity district or zoning district map(s). Even if a map is prepared and adopted, it is useful to designate and describe the extent of the scenic corridor(s) in the text of the ordinance.

§7-7-4 Application and Exceptions

See §7-4 for appropriate definitions of public use and manufactured home. The local government may decide that other exemptions are appropriate. If so, they should be enumerated here.

§7-7-5 Existing Conditions Analysis and Site Plan Required

This provision assumes local government adoption of the modules, “Subdivision and Land Development,” and “Planning Commission” in this model code. If not, this provision will require modification.

§7-8 Rural/Suburban Arterial Corridor Overlay

There are many state highways and rural arterial roads in Georgia. Properties fronting on and adjacent to roads form a “corridor” within which development is likely to occur, because arterial roads provide access and travelers on the road and visibility to the establishments alongside it. In areas where significant development is occurring, or is likely, the rural or suburban arterial road corridor is threatened by several aspects of development. First, the citizenry may value visual rewards that are created by open fields, agricultural outbuildings and the natural scenery of the rural terrain. Citizens and community leaders often regret the loss of rural character when commercial land uses begin to be constructed in haphazard fashion along the road.

As a few commercial uses are added along the road corridor, the expectations of property owners begin to change. Incremental development of commercial land uses along a rural or suburbanizing corridor, when spread out without a coherent pattern, results in “sprawl” (i.e., in this case, dispersal) and “strip” development (i.e., construction of single-function development along the roadway, usually on relatively shallow lots).

There are many reasons why rural and suburban arterial road corridors transition from a pastoral setting to a haphazard sprawl pattern of strip commercial development. Many landowners along the route believe that their land is ripe for commercial development. The locality may lack zoning controls that limit the types of land uses along the corridor. Sometimes, there are zoning regulations, but they are easily (and willfully) changed from agricultural or rural residential to commercial development. When commercial development applications are sought one at a time, decision makers lose sight of the cumulative impacts of individual development decisions on the corridor.

Development within rural arterial corridors can be managed by implementing an appropriate combination of land use tools, many of which are already provided in the Model Land Use Management Code. These include the following regulations:

- Use. Land use intensity districts which limit the uses of land, and special regulations for specific uses.
- Off-site impacts. Performance approaches to control unwanted “externalities” such as noise, odor, vibration, etc. or which require the abatement of nuisances.
- Natural resource protection. Controls to prevent development in flood plains, wetlands, steep slopes and other environmentally sensitive areas..
- Land subdivision and development. Land subdivision and land development regulations that require subdivision plat approval, establish standards for public improvements and control access to public roads.
- Large scale development. Regulation of larger-sized properties with planned development features (i.e., planned unit development), and through major permit requirements.
- Architecture. Design review and design guidelines to address the visual and architectural characteristics of development.
- Signage. Controls on the type, size and location of signs visible from the right-of-way.
- Landscape. Landscaping and buffer regulations and tree protection regulations.
- Pattern. Management of the pattern of development so that it clusters rather than spreads across the land (see Rural Clustering) (also see land use guidance system, which promotes contiguous development patterns that might help to avoid haphazard, strip commercial development patterns).

There are two other sections of the Model Land Use Management Code that take a “subarea specific” approach that can be useful in terms of arterial road corridor management: Interchange Area Development (§7-5) and Scenic Corridor Overlay District (§7-8). These two approaches (regulatory modules) should be consulted for ideas, since both can be applied to corridors. Hence, local government planners interested in arterial road corridor management can bring together the various land use management tools described above and apply them locally to ensure the corridor develops according to community preferences.

Every rural and suburban arterial corridor is unique and so are the preferences of citizens and elected officials in any given locality. Those differences make the preparation of model rural corridor development regulations a difficult task indeed. While the above-referenced regulations can afford basic protection and promote wiser development, they may not provide sufficient guidance about specific development patterns.

An accepted approach to regulating the pattern of development in rural and suburban arterial road corridors is to plan for future land uses, then zone the land for uses in a manner that guides development to intersections (i.e., following a nodal development pattern), thereby hoping to avoid a continuous strip commercial development corridor. Officials who decide on zoning applications have the ability to disapprove of commercial rezoning requests and they control the destiny of the corridor and can avoid strip commercialization. However, that is “easier said than done” when values of property in the corridor escalate and when property owners demand commercial use or threaten to litigate if denied that opportunity. Even though a community does not want strip commercial development and has the tools at its disposal needed to prevent it, strip commercialization of rural and suburban arterial road corridors can still occur anyway.

This module is written with the assumption that a local government has implemented a zoning or a land use intensity district scheme such as that provided in §7-4 of the Model Code. A road corridor could be regulated via one of the zoning or land use intensity districts established in that Code. However, since planners more often establish separate overlay districts for corridors (after some study of existing conditions or preparation of a corridor plan), this module provides a separate set of regulations that can supplement those applicable via the zoning ordinance or other land use management regulations. Again, many other components of the Model Code can, in combination, help manage development in corridors. Local planners should consider this Code module in the context of other Model Code sections (identified above in this commentary) in developing regulations for their jurisdictions.

With regard to spatial development patterns, this corridor management tool is intended to establish commercial and mixed-use patterns of development at the intersections of arterial roads along the corridor (or at other appropriate locations designated in the comprehensive plan or corridor-specific plan). An activity node is created with the development of land surrounding a road intersection, referred to in this module as a “focus area.” Focus areas (one for each quadrant/corner of the intersection) extend 1,320 feet (1/4 mile, or the usually accepted maximum walking distance) in both directions outward from each corner of the major road intersection. This creates development sites of 40 acres at each quadrant of the intersection, which is large enough to provide significant commercial uses (including regional-scale retailers), along with civic spaces, other institutional uses and stand-alone residential areas. It is the maximum size of an area that can be made pedestrian friendly, given the acceptable maximum walking distance of ¼ mile. Different types of land uses (e.g., commercial, office, residential, public, etc.) will likely locate in the focus areas, given the land use restrictions placed on development outside focus areas but inside the corridor. The mixing of uses, such as office and residential on the second and third floors of a building containing ground-level retail use, is permitted but can probably not be mandated by the regulations. Planners should consider how the development in one focus area of the node will complement the uses in the other focus areas of the node, to get the most appropriate, self-supporting mixture of complementary land uses.

§7-8-15 Variances

Local governments adopting this provision must adopt §1-10, Appeals and Variances, of the Model Land Use Management Code. Another alternative is to assign the variance review functions to a hearing examiner.

§7-8 References

Beyard, Michael D., and Michael Pawlukiewicz. 2001. *Ten Principles for Reinventing America's Suburban Strips*. Washington, DC: Urban Land Institute.

City of Jefferson, Georgia. 2002. Zoning Ordinance. Article XVI, “The Gause Corridor Overlay District.” Jefferson: Quad Cities Planning Department.

Talka & Connor, and Hughes Good O’Leary and Ryan. 2000. *Design Guidelines for the Garrison Hill District, State Route 120/Marietta Highway*. Roswell: Department of Community Development.

Davidson, Michael, and Fay Dolnick. 1999. *A Glossary of Zoning, Development, and Planning Terms* Planning Advisory Service Report No. 491/492. Chicago: American Planning Association.

DeChiara, Joseph, and Lee Koppelman. 1984. *Time Saver Standards for Site Planning*. New York: McGraw-Hill.

Forsyth County, Georgia. 2001. *Unified Development Code*.

Forsyth County, Georgia. 2001. Design Guidelines for the Etowah Subarea (Draft). Cumming: Department of Planning & Development.

HOH Associates, Inc, et al. 1993. *Sandy Springs Revitalization Plan: Master Plan Report*. Atlanta: Fulton County Board of Commissioners.

Morris, Marya, ed. 1996. *Creating Transit-Supportive Land-Use Regulations*. Planning Advisory Service Report No. 468. Chicago: American Planning Association.

§7-9 Residential Infill Development

This module assumes that a local government has significant vacant or underutilized land in established residential areas, and that it desires to see those vacant or underutilized residential parcels developed to achieve an efficient, compact, contiguous form of development. This module focuses on residential infill development and is particularly relevant to established residential areas with dwellings that do not contain garages.

To implement this module, local governments need to have already determined what infill lots and underutilized lands exist in the community. It is strongly suggested that the local government's comprehensive plan contain policies that support residential infill development. If these conditions do not exist, it is considered premature to apply this module.

This module is written in a way to complement Code, Section 7-4, "Land Use Intensity Districts and Map." The residential infill development regulations contained in this module are particularly appropriate for encouraging development on infill lots in SR (Suburban Residential) and UR (Urban Residential) land use intensity districts. It is therefore written in a way that is compatible with the language of that Code section. This module is also written in a way to be compatible with subdivision and land development regulations of the Model Code.

There are at least two alternatives for applying residential infill development regulations. Residential infill regulations can be added to existing zoning or land use intensity district regulations. For instance, they might be made applicable to all properties designated SR and UR on the land use intensity district map (see 7-4 of the Model Code). Because these regulations may or may not be accepted in every part of the community, however, it makes sense to apply this module in a more limited context. That is, these special regulations are probably better applied only to infill opportunity areas that have been designated as an overlay district. This module follows the second approach. A third alternative is to prepare and adopt a specific development plan for the areas where infill development is desired. For example, see the downtown specific plan module in this Model Code.

Background Commentary. Land development is often focused in areas where large tracts of land are available, such as in the urban fringe. This emphasis on fringe development has

encouraged low-density sprawl and the neglect and decay of developed areas in some urban/suburban areas. Infill policies shift some of the attention to development in existing urban/suburban areas in order to make efficient use of vacant and underutilized lands. There are substantial local constraints to infill development, such as:

1. Physical challenges of remaining vacant land. Lots that are passed by in the first wave of development are usually those that are more difficult to develop, because of size, shape, configuration, topography or other physical constraints. Land use regulations for infill development must take the unique physical constraints of infill lots into account.
2. Neighborhood opposition. Residents of already developed areas may perceive higher density, residential infill development as a threat to the quality of their neighborhood and they are therefore likely to oppose infill development. Land use regulations need to anticipate neighbor opposition to infill development proposals and address their concerns. The primary ways neighbor opposition can be mitigated are through by-right development provisions and design controls.
3. Regulatory constraints. Low densities and minimum lot specifications can make it difficult to develop infill lots at densities recommended in local comprehensive plans and/or land use regulations. To encourage infill development, special regulations may be needed that allow more flexible lot configurations. Infill development strategies seek to eliminate or modify land-use regulations that may constrain infill development objectives.
4. Lack of supporting market conditions. There may be a lack of a market for infill development. As an urban or suburban area grows, however, the market for higher-intensity development in accessible areas improves. Population growth and changes in the composition of households may indicate a demand for infill development. Relevant changes in demographics include trends toward older households (as the baby-boomers age), smaller families, single-parent families and singles. A strong market for infill development is a virtual necessity.
5. Lengthy or cumbersome development approval processes. Land use regulations can also help create supportive market conditions by ensuring that the development review process is streamlined (and where appropriate, incentives are provided) for compatible infill development. An objective of infill development strategies is to reduce any excessive time constraints in gaining project approvals. Reducing the time in land use approval and permitting will reduce the costs of development and construction and will thus encourage infill development. Time is valuable to everyone but especially to developers, who often have large amounts of money tied up in potentially risky projects. Local agencies can encourage infill development by taking the steps necessary to reduce excessive delays in permitting (EcoNorthwest 1995).

Commentary on Methods to Determine Infill Development Capability: Jurisdictions should first identify areas suitable for infill and redevelopment and include those areas in their buildable land inventory (if they have one). Criteria for determining infill target areas include low neighborhood resistance, a relatively strong existing market and an excess capacity in public facilities. Planners should identify the potential number of parcels suitable for infill development, including all vacant, potentially buildable (underutilized) land in the urban/suburban area. Existing zoning and geographic constraints should be determined for identified potential infill lots. The number of potential lots that can be subdivided from vacant parcels should be determined based on minimum lot size requirements. Potential lots can also be assigned to developed parcels if the size, location of improvements, existing development and physical configuration would allow the parcel to be subdivided into two or more lots. Areas with low-value development on relatively large lots are probably candidates for infill development.

§7-9-5 Permitted Uses

The land use intensity districts referenced in this Code section are found in §7-4 of the Model Land Use Management Code. Jurisdictions not adopting that Code section must substitute the names of appropriate districts it has adopted.

§7-9 References

Atlanta Regional Commission. Infill Development. (Quality Growth Toolkit).
<http://www.atlreg.com/qualitygrowth/planning/toolkits.html>

ECO Northwest. 1995. *Urban Growth Management Tools Technical Report*. Salem: Oregon Transportation and Growth Management Program.

Georgia Quality Growth Toolkit. *Encouraging Infill Development*.

Maryland Department of Planning. 2001. *Managing Maryland's Growth: Models and Guidelines for Infill Development*. Baltimore: Maryland Department of Planning.

OTAK. November 1999. *The Infill and Redevelopment Code Handbook*. Salem: Oregon Transportation and Growth Management Program.

PART EIGHT: SPECIAL GROWTH MANAGEMENT TECHNIQUES

§8-1 Rural Clustering

This module has been specifically developed for counties that have subdivision regulations (or that adopt the subdivisions and land development module of this model code) and are concerned with the aesthetic, environmental, and economic impacts of large lot residential subdivisions in rural areas. A mandatory rural cluster regulation, if adopted and applied, can provide for more compatible rural subdivisions and help preserve active farmland. Because this module identifies areas in accordance with a land use map, legal counsel recommends that if be adopted in accordance with the Zoning Procedures Act.

This module provides a minimal amount of guidance with regard to protecting open spaces and resource lands. Local governments that wish to consider this issue more extensively will want to discuss such issues as how to involve land trusts and provide for conservation easements.

§8-1 References

Arendt, Randall, et al. 1994. *Rural by Design*. Chicago: Planners Press.

Clark County, Washington. Rural Cluster subdivisions (zoning).

Jefferson County, Colorado, Rural Cluster regulations.

Pivo, Gary, Robert Small, and Charles R. Wolfe. 1990. Rural Cluster Zoning: Survey and Guidelines. *Land Use Law and Zoning Digest* 42, 9: 3-9.

§8-2 Corridor Map

This tool is much like an official map, but only for streets and other linear transportation facilities. It is also similar to what Fred Bair (1979) describes as a “major streets map.” An official map is a map specifying the location and extent of future lands that the local government needs for public purposes. It provides more or less exact boundaries where the community intends to purchase land for streets and other facilities. An official map allows local governments to reserve designated land areas for future public improvements. It is intended to minimize indiscriminate construction of buildings and utilities that may be incompatible with plans for future public improvement activities (Ndubisi 1992). The need for designating on an official map other public land reservations, such as parks and school sites, is much less clear since alternative sites for these facilities should be available. Therefore, the model code provides for a corridor map that applies only to streets and transportation facilities. The corridor map includes land designated by the state transportation department for the construction or improvement of transportation facilities. This tool holds some promise in rural Georgia, where local governments see the need to protect future road corridors from encroachment by buildings.

In Georgia, official maps were authorized by the General Planning and Zoning Enabling Act of 1957. The enabling legislation provided that an official map could be adopted which shows the location of streets, public building sites, and public open spaces. The law also indicates that an official map could also show public sites approved on plats of subdivisions which have been approved by the local planning commission. If a master plan or at least a street plan was developed, a local planning commission could adopt an official map showing future streets. The

enabling legislation provided for a showing of parks, playgrounds, and other public open spaces on the official map, and it enabled local governments to adopt ordinances that prohibit or restrict building construction within future streets and future public use properties. It also provided for an appeal to the Board of Zoning Appeals or if none existed, a Board of Appeals created for that purpose. The 1957 enabling legislation was invalidated as of 1976 when changes were made to the State constitution and thus that statute no longer appears in the Georgia Code. Therefore, there is no enabling legislation for adopting official maps in Georgia.

The corridor map is reportedly more legally defensible than an official map (American Planning Association 1998). Since an official map was once specifically enabled in Georgia, the corridor map (a derivative) should also be considered legal. The corridor map ordinance must be carefully written so that it does not restrict all reasonable uses of a given parcel.

From a legal standpoint, a local government would be authorized to adopt official maps showing future public improvements. If the local government prohibited development within the areas of those future public improvements, the map would likely be considered a zoning map and thus required to comply with the Zoning Procedures Law.

Some concerns may arise with regard to “takings” claims. If a local government were to designate a future right-of-way, for example, and thus prohibit a property owner upon request to develop on that future right-of-way, a strong case for inverse condemnation could be made against the local government. That is to say, the local government could not prohibit indefinitely development of property in the hope that it would purchase that property in the future for a public use. But, still, the local governments should be encouraged to plan ahead and develop plans for future public uses.

A corridor map requires a comprehensive plan that designates future streets and linear transportation facilities. Therefore, a comprehensive plan with specific recommendations on future streets and linear transportation facilities should be considered a prerequisite. It requires coordination with the state transportation department if it is to include state highways and other linear transportation facilities. Procedures for adoption should generally follow minimum standards specified in the Zoning Procedures Act, including general notice in a newspaper of general circulation and holding a public hearing. Written notice to all owners of parcels of land involved in a future transportation corridor is also advisable.

§8-2 Corridor Map References

American Planning Association. 1998. *Growing Smart Legislative Guidebook: Model Statutes for Planning and the Management of Change*. Phases I and II Interim Edition. Chicago: American Planning Association.

Bair, Frederick H. 1979. *Planning Cities*. Chicago: Planners Press.

General Planning Enabling Legislation, State of Georgia. 1970. General Planning Enabling Act of 1957, including amendments through the 1970 General Assembly. Atlanta: Bureau of State Planning and Community Affairs.

Ndubisi, Forster O. 1992. *Planning Implementation Tools and Techniques: A Resource Book for Local Governments*. Athens, GA: Institute of Community and Area Development

§8-3 Development Agreement

Description and purpose. This tool is a negotiated agreement between a local government and a developer. It usually involves large-scale development that will be phased and constructed over a long period of time. A development agreement is sought by a developer to bring certainty to the local regulations that will govern the development over time. In exchange for agreeing to “lock in” the development regulations for a given development over time, the local government may receive agreement from the developer to install infrastructure or take other actions that further the public interest (Schiffman 1999).

This module provides a local Resolution [Ordinance] authorizing development agreements. It contains substantial detail for what constitutes a development agreement, and the content of this model Resolution [Ordinance] can be used to draft development agreements applicable to specific property. The local government can then adopt (after a public hearing) the development agreement with a simple Resolution [Ordinance]. Since there is no State-enabling legislation in Georgia authorizing local governments to enter into development agreements, local governments that wish to implement this tool should use a three-step sequence: (1) adopt a general Resolution [Ordinance] governing development agreements (i.e., this model code section); (2) negotiate a development agreement for a specific property upon application by the property owner; and (3) adopt the negotiated agreement by Resolution [Ordinance].

Example application. The State of California’s laws specifically authorize local governments to enter into development agreements, as a legislative act approved by Resolution [Ordinance]. In Hawaii, development agreements are considered administrative acts (Schiffman 1999). Development agreements indicate the uses that will be permitted, the bulk, intensity and dimensional requirements (height, setbacks, etc.), the time period of the agreement, and provisions for review and termination of the agreement (Schiffman 1999). At least nine (9) states have enacted legislation that enables development agreements between developers and local governments: Arizona, California, Florida, Hawaii, Louisiana, Nevada, New Jersey, and (to a limited extent) Colorado and Minnesota (Taub 1990).

Legal Commentary: One school of thought would contend that local governments may not “contract away the police power,” particularly in the context of zoning decisions. Stated another way, government cannot bind itself to not exercise its police powers. It can thus be considered to be against public policy to permit the bargaining of zoning and subdivision regulations for agreements and stipulations on the part of developers to do or refrain from doing certain things. Arguably, a development agreement in concept violates the “reserved powers doctrine” (Callies and Tappendorf 2001).

However, the dominant legal view is that development agreements, drafted to reserve some governmental control over the agreements, do not contract away the police power; but, rather, constitute a valid present exercise of that power. The Nebraska Supreme Court has preferred to characterize development agreements as a form of conditional zoning that actually increases the city’s police power, rather than lessening it, by permitting more restrictive land use regulations (attaching conditions through agreement) than a simple rezoning to a district in which a variety of uses would be permitted of right. Also, a recent California appeals court squarely upheld a development agreement that was challenged directly on “surrender of police power” grounds (Callies and Tappendorf 2001).

Commentary by Legal Counsel: Legal Counsel questions whether this module would be legal in Georgia and casts doubt on its constitutionality. However, no case has dealt with this type of regulation in Georgia.

§8-3-6.6 Recitation of Benefits and Burdens

Stressing such benefits may help protect the agreement against a “bargaining-away-the-police-power” challenge (Callies and Tappendorf 2001).

§8-3-6.8 Applicable Land Use Regulations

The local government may have few land use regulations that apply. Indeed, this module has as a basic premise that the local government does not have any significant land use regulations in place.

§8-3-7 Adoption by Ordinance after Public Hearing

Local governments wishing to adopt this Resolution [Ordinance] but which have not adopted zoning procedures should incorporate applicable provisions of Section 10-1 of this model code, which has been written to comply with the Zoning Procedures Law.

§8-3 References

Callies, David L., and Julie A. Tappendorf. 2001. Annexation Agreements and Development Agreements. In Patricia E. Salkin, ed., *Trends in Land Use Law from A to Z: Adult Uses to Zoning*. Chicago: American Bar Association.

Schiffman, Irving. 1999. *Alternative Techniques for Managing Growth*. Berkeley: University of California, Berkeley, Institute of Governmental Studies Press.

Taub, Ted. 1990. Development Agreements. *Land Use Law & Zoning Digest* 42, 10: 3-9.

§8-4 Interim Development Regulations

The land just outside municipal city limits, or large, undeveloped areas inside a city, can be an attractive place to live. As development spreads out from the center of a city, it tends to decrease in density. Low land prices outside the city or large parcels inside the city allow very large lot residential development. By residing in unincorporated areas, the residents thereof avoid paying municipal property taxes. Yet their close proximity to the city may mean that those residents can avail themselves of city services, such as parks, fire protection, water supply, etc. Often, the residents of low-density unincorporated areas do not want to live inside the city because they can avoid paying city taxes if they remain in the unincorporated area (but perhaps enjoy certain city services). Residents of low-density fringe areas, whether unincorporated or incorporated, may not want development beside or near them, and they tend to oppose additional development at urban densities.

Efforts by a city to ensure a compact, contiguous urban form in the future, as its city limits grow or as development occurs within the city, are often stymied by a low-density development pattern. The residents may oppose new development at urban densities. When allowed to occur, low-density subdivisions can prevent the logical extension of the established urban

pattern in cities as annexation occurs or as development moves to the fringe within the city limits. Once low-density, suburban or exurban subdivisions occur, the pattern of property ownership is difficult if not impossible to change. The low-density subdivision pattern precludes urban development and forces urban-density development to “leapfrog” out past the low-density area, creating urban sprawl.

Interim development regulations are an important component of a package of policies designed to manage urban growth. They include tools to ensure that urban fringe lands can be developed at urban densities later, even if they might be developed in the “interim” for lower-density residential uses. They include among other tools: large-lot holding zones, minimum density requirements, restrictions on land partitions and agreements with land owners (ECO Northwest 1995).

Implementing interim development standards requires a high degree of intergovernmental coordination if they are intended to apply urban densities to unincorporated areas. If the future urban residential area is unincorporated (i.e., not in the city at this time), then this module would need to be adopted by the county. If this module is intended to apply only to large, undeveloped lands inside the city limits, then intergovernmental coordination is not required.

§8-4-2 Definition of Shadow Plat

Local governments that have not adopted Section 4-1 should refer to their subdivision regulations instead of Section 4-1 of this Model Code.

§8-4-2 Definitions of Non-Urban Densities and Urban Densities

Local governments should establish the density at the level (or range) recommended in the comprehensive plan.

§8-4-6 Existing Lots of Record

The required minimum lot size in Table 8-4-1 is intended to allow some flexibility to the land subdivider, in the event that a perfectly equal allocation of land area to each lot would be problematic for whatever reason, such as a desire to make a lot conform to a stream or other natural boundary.

§8-4 Reference

ECO Northwest. 1995. *Urban Growth Management Tools Technical Report*. Salem: Oregon Transportation and Growth Management Program.

§8-5-2 Definition, Affordable Housing

The following table, from Morgan County, Georgia’s zoning ordinance, demonstrates figures that would need to be compiled for the jurisdiction to which the Code Section applies.

Purchase Price of Single-Family Home Affordable to
Workforce Household, Morgan County, Georgia

Year	Projection of Median Family Income, Morgan County, GA	Moderate Income, Morgan County, GA (80% of Median Family Income)	Affordable Purchase Price, Morgan County, GA (80% Figure Multiplied by 2.5)
1999 (Census)	\$46,146	--	--
2004 (Estimate)	\$51,600	\$41,280	\$103,820
2005	\$52,690	\$42,152	\$105,380
2006	\$53,780	\$43,024	\$107,560
2007	\$54,870	\$43,896	\$109,740
2008	\$55,960	\$44,768	\$111,920
2009	\$57,050	\$45,640	\$114,100
2010	\$58,140	\$46,512	\$116,280
2011	\$59,230	\$47,384	\$118,460
2012	\$60,38-6	\$48,256	\$120,640
2013	\$61,410	\$49,128	\$122,820
2014	\$62,500	\$50,000	\$125,000
2015	\$63,590	\$50,872	\$127,180
2016	\$64,680	\$51,744	\$129,360
2017	\$65,770	\$52,616	\$131,540
2018	\$66,860	\$53,488	\$133,720
2019	\$67,950	\$54,360	\$135,900
2020	\$69,040	\$55,232	\$138,080

PART NINE: REGULATIONS TO IMPLEMENT CHARACTER AREAS

LEGAL COMMENTARY ON REGULATING FOR AESTHETICS

Changing land use regulations to implement character areas requires local governments to regulate aesthetics. Aesthetic regulation can be said to involve land use and development regulations that would have “no effect on the sensibilities of a person without sight” (*Rathkopf’s The Law of Zoning and Planning*, Vol. 2, Sect. 16:2). There may not be a consensus among local government officials on the extent to which building materials, colors, and other sorts of guidelines or regulations should be imposed on their citizenry. City and county attorneys may raise legal issues and withhold support for regulations based wholly or in part on aesthetics.

This commentary addresses legal foundations for preparing and adopting local land use regulations to implement character areas, which include considerable emphasis on aesthetics. Unless local government officials are convinced they will not get into trouble with the law, adoption of design-oriented regulations to implement character areas may flounder.

Courts and the general public have now largely accepted local government regulations that are based on aesthetics. Legal scholars refer to this as the “modern-period doctrine” that aesthetics alone is an independent public purpose for police power regulation of land use. Design and aesthetic considerations are now generally held to be a legitimate public purpose for police power regulation of land use. This does not mean, however, that courts will give blanket approval to regulations based on aesthetics. Courts will probably give aesthetics less weight than more traditional public purposes (health, safety, and general welfare). Aesthetic regulations are also probably more susceptible to (at a higher risk of) being challenged on grounds they are unreasonably applied, vague, lack objective standards, and/or are difficult to enforce consistently.

The U.S. Supreme Court as early as the 1950s began holding the view that intangible aesthetic values are within the lawful scope of governmental concerns. In *Berman v Parker*, 348 U.S. 26, 75 S. Ct. 98 (1954), the U.S. Supreme Court’s majority opinion held that “it is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well balanced as well as carefully patrolled” (*Rathkopf’s The Law of Zoning and Planning*, Vol. 2, Sect. 16:5 at footnote 2). The court has also accepted other aesthetics-based regulations such as landmark preservation in *Penn Central Transportation Company v City of New York*, 438 U.S. 104, 98 S. Ct. 2646 (1978), open space zoning in *Agins v City of Tiburon*, 447 U.S. 255, 100 S. Ct. 2138 (1980), and regulation of signs and billboards in *Metromedia, Inc. v City of San Diego*, 453 U.S. 490, 101 S. Ct. 2882 (1981) (*Rathkopf’s The Law of Zoning and Planning*, Vol. 2, Sect. 16:5 at footnote 1).

In Georgia, the Supreme Court during the late 1970s and early 1980s followed the so-called “middle period doctrine,” which held that regulations based on aesthetic considerations were legitimate only so long as other non-aesthetic purposes were furthered by the regulation. See *Department of Transportation v Shiflett*, 251 Ga. 873, 310 S.E.2d 509 (1984) (sign restrictions, aesthetics, and traffic safety), *Thomas v City of Marietta*, 245 Ga. 485, S.E.2d 775 (1980) (same, but stating aesthetics alone is insufficient), and *City of Smyrna v Parks*, 240 Ga. 699, 242 S.E.2d 73 (fence restriction, linking aesthetics and property values) (*Rathkopf’s The Law of Zoning and Planning*, Vol. 2, Sect. 16-4 at footnote 6).

Presently, Georgia’s Courts embrace the so-called “modern doctrine” of upholding reasonable regulation of land use based primarily or exclusively on aesthetic considerations. See *Gouge v*

City of Snellville, 249 Ga. 91, 287 S.E. 2d 539 (1982) (prohibiting satellite dish antenna in front yard) and Parking Association of Georgia, Inc. v City of Atlanta, 264 Ga. 764, 450 S.E.2d 200 (1994) (upholding a zoning ordinance imposing landscaping and tree planting requirements on surface parking lots with 30 or more spaces). In the latter case, the court “found several legitimate purposes underlying the ordinance, but stressed that the aesthetic purposes alone were sufficient to justify it as a reasonable use of the city’s police powers” (*Rathkopf’s The Law of Zoning and Planning*, Vol. 2, Sect. 16-5 at footnote 6). Further, the court found that the ordinance reasonably furthered the aesthetic purpose of creating visual beauty in the area (*Rathkopf’s The Law of Zoning and Planning*, Vol. 2, Sect. 16:11).

In the event of litigation, courts may decide the validity of aesthetic regulation by a traditional due process standard of reasonableness, and/or a balancing test that weighs the relative gain to the public in terms of aesthetic values against the detriment or harm imposed on private property owners. An aesthetic regulation could be unreasonably applied if the design, style, and types of structures that are prevented by the regulation exist in the area regulated. General standards, such as “the proposed design must be in harmony or congruent with existing structures in the area,” while not necessarily unconstitutionally vague, are discouraged in favor of standards that will derive their meaning from the specific and observable features of existing buildings in the area or from background documents such as specific design criteria.

§9-1 Downtown Specific Plans

Specific plans describe in more detail the type of development planned for a particular area than found in the comprehensive plan, combining the planning objectives for an area and the implementation techniques to achieve them. Specific area plans typically focus on some unique feature of the geographic area that they encompass, and can relate to local conditions that cannot be fully addressed by conventional zoning. Although particularly suited to application for large, undeveloped land areas, the specific plan may be used to guide the buildout of partially developed areas with potential for infill and redevelopment. The latter application is relevant to Georgia’s typical small rural downtown, where the focus is to promote and maintain the character of the community’s small downtown.

Specific plans have been implemented by local governments in the State of California, where they are recognized for their value as an implementation tool. Under California law, a specific plan must contain text and diagrams that specify the land uses within the area covered by the plan, the infrastructure needed to serve the proposed land uses, development standards and criteria, and capital improvements and financing measures necessary to implement the plan. Under California law, a specific plan is adopted either by resolution or Resolution [Ordinance] following a public hearing process by the planning commission and governing body. It then typically serves to supplement, and in some cases, supercede the conventional zoning regulations for the property(ies). In addition to its widespread use in the State of California, the specific plan is being utilized as a growth management tool by local governments in other states, such as Oregon.

The California specific plan model may not be applicable in its entirety to the development conditions in rural Georgia. However, this module presents a variation of the specific plan approach that could be appropriate in small towns in rural Georgia. This module is intended to provide small rural towns in Georgia with an alternative to conventional zoning that would apply to only one part of its jurisdiction—its downtown. Under the assumption that a small city’s downtown may be one of the more important areas in which to ensure compatible development, a specific plan for the downtown could be turned into more than a plan itself. It could be a

regulatory tool adopted by ordinance that provides detailed guidance on future development in the area.

In many of Georgia's small and/or rural communities, the downtown core area encompasses as few as four or five blocks, often laid out around a central square, park or other focal point such as a county courthouse, a church, or a museum. Linear "main street" configurations comprised of up to five blocks in length and one or two blocks in width are also prevalent. The downtown specific plan can be used as a regulatory tool to protect and enhance such areas, in the absence of (or in addition to) conventional zoning.

Caution in Using This Tool: This module is written so that it can be applied generally to small downtown core areas in Georgia's rural cities. However, the whole idea behind a specific plan is that a "plan" is prepared; one that is based on a study of site-specific conditions and considers the uniqueness of the special area. While many characteristics of small downtowns in Georgia are similar, it is impossible to generalize about them in a way that would be meaningful in the context of land use regulation. For these reasons, communities desiring to use this tool must investigate unique conditions and prepare a specific plan for the area. Such a plan informs the land use regulations needed, but it also provides a more solid legal foundation on which to regulate development. After the plan itself is adopted, the community can write an ordinance (based on the language in this module) that "puts teeth" into the recommendations, policies, and objectives of the downtown plan.

Commentary on Partial Zoning Schemes: This tool amounts to a less-than-comprehensive zoning ordinance to regulate specifically designated areas. The purpose of this tool is to establish zoning and various design regulations in a specific geographic area of a city because land use controls are needed there but are not necessary or politically acceptable in other portions of the jurisdiction. By zoning, it is meant that the regulations contain a list of permitted (or prohibited) land uses within only a certain part of the local jurisdiction. Hence, a specific plan such as that presented in this module is an example of what could be called "partial zoning schemes."

Applications of Partial Zoning Schemes. There are no known examples of partial zoning schemes applied in Georgia. However, there are examples in western states where zoning has been adopted for an urban area or other portion of a jurisdiction that is under significant development pressure, yet the remaining balance of the county is unzoned. For example, Cowlitz County, Washington, has a zoning ordinance that applies to an urbanized area surrounding the cities of Longview and Kelso, but the vast majority of the county (which is mostly private forestland) remains unzoned. Similarly, Gallatin County, Montana, has developed separate zoning ordinances for portions of the county experiencing resort development, while the remainder of the county is unzoned.

Commentary on Legality of Partial Zoning Schemes. The concept of zoning part of a jurisdiction while leaving the remainder unzoned may violate past precedents and legal principles that "zoning must be done in accordance with a comprehensive plan." However, the phrase "in accordance with a comprehensive plan," which has its origins in the Standard State Zoning Enabling Act, has never been precisely defined and has always been subject to debate among planners and lawyers. One might question the imposition of zoning regulations on less than an entire jurisdiction. However, if sufficient justification can be shown for imposing zoning regulations on part of the area of the county or city rather than the whole, jurisdiction would likely be upheld, even with an equal protection challenge. But, there needs to be specific conditions relating to the area zoned, such as excessive growth and development, which would

justify having zoning in less than the entire jurisdiction. Local government can adopt a zoning ordinance that establishes districts only in part of its jurisdiction, provided it satisfies equal protection standards. The fact that such an ordinance may impose greater burdens on only some of the population rather than the other is not the critical element. There must be a rational basis between zoning only part of the jurisdiction and not zoning other parts (Jenkins 2001).

If this module is intended to stand alone, rather than be adopted as a part of the overall land use management code, then the following additional elements of this code should be incorporated into this Resolution [Ordinance]. As noted by Legal Counsel, it is especially important to be clear on who will make decisions and approve development plans under the provisions of this section; that might be a Design Review Board (see §9-2), the Planning Commission (§10-2), the Governing Body, or possibly the Land Use Officer.

§9-1-3 Adoption of Downtown Specific Plan by Reference

Some specific plans also establish boundaries for a transitional area adjacent to the downtown, which can be important in maintaining the character of the specific area. Communities may consider also establishing a downtown transitional subarea and adopt regulations that apply to that subarea.

As noted above, the specific plan should actually be a “plan” as well as an implementing ordinance. To strengthen the status of the specific plan, it should be explicitly referred to in the Comprehensive Plan, if not adopted as a part of the comprehensive plan. Paragraphs in this Subsection are intended to bolster the legal status of this Resolution [Ordinance].

Because the adoption of regulations applicable to a specific area, as defined by boundaries on a map, may be considered a zoning district, it is strongly advised that ordinances implementing specific plans be adopted only after full compliance with the Zoning Procedures Law (O.C.G.A. 36-66).

The provision requiring written notice to nearby property owners is not a requirement of the state zoning procedures law. However, given the site-specific nature of the regulations, it is advisable to follow a practice many local governments exercise, that is, notify individual property owners of the proposed regulations. Legal Counsel recommends excluding this provision, because it can easily result in procedural defects if not followed exactly and, therefore, can undermine a land use or zoning decision.

§9-1-5 Use Limitations

Many of the uses listed in the table are defined in §7-4 of this code. If the local government does not adopt §7-4, it may wish to import definitions from that section into this module.

§9-1-6 Building Setbacks

In the Downtown Specific Plan area, buildings are placed close to the street to create a pedestrian-oriented environment, provide storefront character towards the street, limit traffic speeds, and encourage walking. The setback requirements are flexible to encourage public spaces between sidewalks and building entrances to allow for pedestrian spaces, such as, but not limited to, outdoor dining areas, street furniture, extra wide sidewalks, and plazas. Building setbacks are measured from the build-to line to the respective property line. Setbacks for

porches are measured from the edge of the deck or porch to the property line. Setback requirements apply to primary structures as well as accessory structures.

§9-1-6.4 Through Lots

For definitions of “through” lot and “corner” lot, see Section 4-1 (subdivision and land development regulations) of this model land use management code.

§9-1-9.4 Allowable Density

Depending on the height of buildings in the downtown, and the percent of the lot that is covered, densities permitted in downtowns according to these regulations could differ substantially. A maximum density could be established at the discretion of the local government.

§9-1-12 Signs

It is likely that the existing signage in the Downtown Specific Plan area may not be consistent with a comprehensive signage plan. However, there may be an overall signage theme in the Downtown Specific Plan area. If such a theme exists, the signage for each project should be consistent with that theme. Within the Downtown Specific Plan area, signs should be small, with distinctive shapes, unique materials, symbols and textures, and promote a style of signage that maximizes creativity. Refer to the sign code module in this model land use management code for a definition of signs and other applicable regulations.

§9-2 Design Review

Commentary on Historic Preservation Versus Design Review: Local governments that desire to regulate the architectural appearance of historic properties and historic districts must establish a Historic Preservation Commission via ordinance rather than a Design Review Board as proposed here. See Section 9-3 of this model code for a model ordinance to establish a historic preservation ordinance.

Description and Applicability: Design review, which involves some subjective judgments as to the aesthetics of a given development, is not likely to be acceptable in many rural communities, unless the district applies to an area that has extensive community support for protection. Generally, local governments that are unwilling to adopt land use regulations will be even less willing to suggest or dictate architecture and aesthetic aspects of development. However, local governments are becoming increasingly more concerned with the appearance of development. In some instances, communities that cannot muster political support to regulate the location and mixtures of land use might be able to garner community support to ensure through regulation developments that are architecturally appropriate and compatible. Design review is a process of reviewing the architecture, aesthetics, and site characteristics of new development within a specifically designated area, or jurisdiction-wide. Its primary purposes are to achieve architectural harmony and aesthetic compatibility between new and existing development. It is strongly recommended that any design review ordinance be accompanied by the adoption (by resolution or ordinance) of design guidelines appropriate to the types and character of buildings and development being reviewed. Section 9-3 of this model code is considered to be a companion code section to this Resolution [Ordinance]. Communities should view the provisions in Section 9-3 of this model code as a menu of possible general guidelines that might apply, depending on the specific nature of development in the jurisdiction. More specific design

guidelines that match the particular aspects of the community and areas being regulated are also strongly recommended.

Administrative Requirements for Implementation. Design review requires a fairly elaborate ordinance, and detailed design guidelines are highly recommended. Both of these requirements necessitate professional expertise not often available locally (and perhaps not regionally in Georgia's more rural areas). A building permit system and a site plan review are prerequisites. In addition, some professional expertise is needed on the design review board and on the part of the staff administering the Resolution [Ordinance]. Design review requires more extensive applications for development; for instance, a typical design review application contains architectural elevations and often color and material samples. It is unlikely that rural local governments will have the necessary expertise on staff, and they may not have a sufficient pool of citizens with the requisite professional experience to serve on a review board. The procedure for processing applications for design review are written in a way that they closely track the same procedure as for certificates of appropriateness in historic districts (see Section 9.3 of this model code). However, the design review application procedure does not require public hearings or notices to adjacent property owners, as is the case with reviews within historic districts by a historic preservation commission.

§9-2-3 Applicability

Applicability refers to the type of development and the jurisdiction or area regulated. Rural counties might apply this Resolution [Ordinance], but it is written to apply to cities where concentrations of development exist. A community may wish to guide architectural design only within a selected district, rather than applying regulations community-wide. If design review is intended to apply only to a portion of the city, the Resolution [Ordinance] should make clear that there are unique features of the area being regulated, not found in other parts of the community, that justify and warrant design review. With regard to types of land uses, it is customary to exclude from design review detached single-family residences. Only in unique circumstances would it be appropriate to regulate individual detached dwellings. With regard to manufactured homes, see the compatibility standards provided in Part Three §6-22) of this model code.

§9-2-4 Establishment of Design Review Board

It may be difficult for small cities or rural counties to find persons who meet the professional qualifications cited above. Another challenge in small cities and rural counties is finding a sufficient number of persons to serve on a board of this type without pay. It is not recommended that the number of persons serving on the Design Review Board be reduced below five members, because the next alternative, (three) might allow too much domination by individual members and a vote of only two members to constitute a majority. If the local government desiring to establish a Design Review Board does not believe it can find people with the professional qualifications established in this section, it could reduce those requirements to what may be feasible. For example, altering the minimum membership qualification of at least three of the five members having special qualifications or expertise in the areas of architecture, landscape architecture, building construction, or land planning. In any event, it is advisable that the majority of Design Review Board has relevant professional credentials. Local governments might consider appointing the Land Use Officer or designated officer as the design review agent in lieu of a board. However, placing discretionary authority for architectural design and appearance in a single individual is risky due to possibilities that such discretion will be abused. If a local government places discretion for design review approval in a single administrative official such as the Land Use Officer or designated officer,

then the Resolution [Ordinance] should provide substantial, specific design guidelines that move the design review process more into the realm of objective standards than discretionary judgment. Also, when a single administrator is responsible for design review, an appeal to higher authority must be provided to guard against abuse of discretion.

§9-2-5 Authority of the Design Review Board

An appellant may file immediately after a decision under this provision and does not have to wait the full 30 days. The appeal would typically be heard at the next regular meeting or after due notice was given.

§9-2-7 Definitions

This section provides a glossary of terms related to architectural design. Except for the term “material change in appearance,” these definitions lack a specific regulatory context unless the local jurisdiction also adopts the companion code provision on design guidelines (see Section 9-3 of this model code). It is recommended that the architectural design-related definitions be adopted within the design review ordinance itself, rather than as a part of the design guidelines module. For additional definitions, especially those related to types of land uses and development features, see §7-4 of this model code. Depending on the complexity of architectural review sought, some of the definitions in this section may not be needed.

§9-2 References

Jerry Weitz & Associates, Inc. 2001. *Development and Design Guidelines for the Georgia 400 Corridor, Dawson County, Georgia*. Dawsonville: Dawson County Department of Planning.

OTAK, Inc. 1999. *Model Development Code and User’s Guide for Small Cities*. Salem: Oregon Transportation and Growth Management Program.

§9-3 Design Guidelines

If a local government establishes a design review board, design guidelines, specific to the local jurisdiction, should be prepared, adopted, and applied by the board. In the absence of guidelines specific to a particular jurisdiction, the following design guidelines might be appropriate for use by local governments. Note that the guidelines pertain to a variety of topics, including lighting, industrial districts, drainage, and architectural design. Local governments should determine which types of guidelines are applicable in their jurisdiction and choose only those that apply in the community.

This module is intended to provide guidelines rather than regulations. As such, compliance is voluntary rather than mandatory. They should be applied in individual instances but should be considered variable in the judgment of the board or officer making the decision on the design application.

§9-3-2 Site Planning

This model code provides regulations that address some of these off-site impacts. For more specific and stronger provisions regarding off-site impacts, see Section 5-1 of this model code.

§9-3 References

In addition to the references cited below, a number of local governments in Georgia have adopted design guidelines for various parts of their jurisdictions. Many local design guidelines are available via the World Wide Web. Other references with regard to urban design are listed in the master bibliography of this model code, including, but not limited to, Olshansky 1996 (hillside development), Porter 1998 (urban design), Sanders 1993 (manufactured housing), and Waters 1983 (historic preservation). For a list of planting materials appropriate to the region, there are many sources including DeChiara and Koppelman (1984). For other design-related regulations, one can also consult other modules of this model code.

Arendt, Randall, et al. 1994. *Rural by Design*. Chicago: Planners Press.

Craighead, Paula M. (ed.). 1991. *The Hidden Design in Land Use Ordinances: Assessing the Visual Impact of Dimensions Used for Town Planning in Maine Landscapes*. Portland: University of Southern Maine.

DeChiara, Joseph, and Lee E. Koppelman. 1984. *Time Saver Standards for Site Planning*. New York: McGraw-Hill.

Dramstad, Wenche E., James D. Olson, and Richard T.T. Forman. 1996. *Landscape Ecology Principles in Landscape Architecture and Land-Use Planning*. Washington, DC: Island Press.

Forsyth County Unified Development Code. 2001. Cumming: Forsyth County Department of Planning and Development.

Stokes, Samuel N., et al. 1989. *Saving America's Countryside: A Guide to Rural Conservation*. Baltimore: Johns Hopkins University Press.

§9-4 Historic Preservation

Local governments desiring to designate historic districts and properties must do so in compliance with the Georgia Historic Preservation Act of 1980. This module is written in compliance with that state law. Historic preservation is more likely to be needed in cities than in counties due to the higher probability of concentrated historic resources in cities. However, counties may also choose to adopt historic preservation regulations in accordance with this module.

Legal Counsel recommends that the notice and hearing requirements for adoption of this Resolution [Ordinance] follow all the procedures for adoption of a zoning ordinance (i.e., compliance with the Zoning Procedures Act). Since the state Historic Preservation Act specifies the procedures for considering certificates of appropriateness, those procedures do not require compliance with the Zoning Procedures Act.

§9-4-17 Certificate of Appropriateness Required

Commentary on the regulation of building colors: A question may arise as to whether a Historic Preservation Commission has the authority to regulate external building colors. The Georgia Historic Preservation Act of 1980 specifically excludes “exterior paint alterations” from the definition of “material change in appearance” (O.C.G.A. 44-10-22). Furthermore, the act’s

definition of “exterior architectural features” does not mention color, though the scope of the definition is not limited to those items specifically described in that definition. Preservation planners around the state have generally been instructed that regulation of color in historic districts is “off-limits.”

It might be reasonably implied that commissions can regulate color, and that the reference to color in the definition of “material change in appearance” was meant only to exempt paint color changes from having to obtain a certificate of appropriateness when that is the only “material change” involved. However, that interpretation may be difficult to reconcile with the definition of “material change in appearance.” Avoiding strong contrasts in colors seems reasonable within the scope of historic preservation that includes purposes of improving aesthetics. Consultation with legal counsel is strongly advised on this matter.

§9-4-30 Incorporation Clause

In the case of this module, since state law is involved, Legal Counsel recommends that an “incorporation clause” be included just to be sure that no mandatory provision of the state statute is inadvertently omitted.

§9-4 References

In 1983, the Institute of Community and Area Development at the University of Georgia published *Maintaining a Sense of Place: A Citizen’s Guide to Community Conservation*, by John C. Waters. That model was also reproduced in abbreviated form in Ndubisi, Forster. 1992. *Planning and Implementation Tools and Techniques: A Resource Book for Local Governments*. (Athens: ICAD). The model preservation ordinance written by Waters was used, along with a draft historic preservation ordinance for the City of Roswell, Georgia, to prepare this model ordinance.

§9-5 Form-Based Code Provisions

Local governments that prepare a map showing character areas will conclude that each character area requires its own unique strategy for guiding future development patterns and forms. To be truly effective at implementation, local governments that establish character areas will need to develop land use regulations that fit precisely with the intended vision. Conventional zoning has not responded well to the needs for creating places with character.

This module on “form-based codes” (also called form-based zoning, new urbanist codes, and contextual zoning) is intended to help implement visions for the future physical development of communities.

To date, most local governments that have implemented particular “character” areas (e.g., districts, centers, corridors, or other places within the city or county) have done so through by adding an overlay zone to their conventional zoning ordinances containing regulations designed to preserve or enhance the particular character. Local governments also typically prepare and adopt “design guidelines,” which provide recommendations on the most desirable design features of development within the character area.

Form-based codes, a new term referring to codes that focus on design and form rather than use, are a logical extension of prior approaches of overlay zones with design guidelines. Form-based codes go further, however, by actually integrating design considerations in land use

regulations, and in some cases, giving a town architect review responsibilities in the land development process.

Conventional zoning regulations and maps do not have substantial impact on the form of development that appears on the ground. Although conventional zoning regulates height, placement, and the bulk of buildings, it is not prescriptive regarding the desired physical form. Form-based codes translate community visions into rules for building. For instance, they typically establish minimum as well as maximum heights and “build to” lines rather than minimum building setbacks.

What are Form-Based Codes?

Form-based zoning is an emerging land development regulatory tool that is being implemented by an increasing number of local governments. Form-based codes rely on the principle that design is more important than land use. Rather than regulate by zoning (use) districts, form-based codes regulate development by building type, street type, location (character area), or transect (ecozone), or a combination of some or all of these. As described further in this module, form-based codes rely on a “regulating plan” which consists of a map that usually sets forth geographic divisions of the community (i.e., character areas) and which often specifies on the map itself some of the desired development conditions (e.g., build-to lines).

How Form-Based Coding Relates to Conventional Zoning

Form-based codes can replace conventional zoning districts altogether. As local governments prepare comprehensive plans that emphasize character areas, they will find that form-based approaches are more suitable implementation tools than conventional zoning. Form-based codes differ from conventional zoning in a number of important respects.

Form-based codes:

- Are preceded by a vision or design charrette. They are preceded by visioning and/or design charrettes and thus require more extensive public participation processes. All form-based codes begin with a physical vision of what the community considers ideal (or in the case of a developed area, what the community wants to maintain or retrofit).
- Use graphics and tables more than text. They include graphics showing building types, building height and placement on the lot, street types and streetscape improvements, and architectural elements (windows, doors, balconies, etc.). Such graphic details, while often appearing as “design guidelines,” are not usually provided in conventional zoning ordinances and therefore not “regulatory” in nature. Furthermore, form-based codes illustrate how development relates to public spaces (streets, squares, parks, etc.) and surrounding properties. Development specifications are often, but not always, presented in table form for simplicity, clarity, and brevity.
- Seek to implement mixed-use, pedestrian-friendly communities. Form-based codes can apply to rural areas, neighborhoods, and special districts. Experience to date shows that they most frequently focus on creating mixed-use, pedestrian-oriented, urban-style neighborhoods and activity centers. We know these by other terms, such as “traditional neighborhood development,” “mixed-use development,” and “transit-oriented development,” among others. Conventional zoning does not often share this goal, or if it does, it is ill-equipped to achieve such visions.

- Incorporate the dimensional specifications of conventional zoning and add new ones. Form-based codes are like conventional zoning in that they regulate the height of buildings, placement on the lot, and other specifications. They often go much further, however, in terms of specifying such considerations as the amount of the lot frontage that must be occupied by building. Form-based codes also typically regulate density (often through floor-area ratios since they mostly apply to urban scales of development), but they often specify minimum as well as maximum densities. They can also include provisions for increasing density where justifiable, such as near public transit stops.
- Speak to desired uses but do not provide detailed use provisions. Form-based codes deemphasize, but do not abandon altogether, the regulation of uses. They typically suggest the types of building types (and indirectly if not explicitly, the use) appropriate in the various character areas. Form-based codes that “stand alone,” (i.e., replace a conventional zoning scheme) often do contain detailed lists of permitted uses for each character area. Indeed, tables describing the uses permitted in an area are frequently included in form-based codes.
- Add architectural review as a development regulation. Form-based codes differ from conventional zoning in that development review authority is sometimes given to a “town architect,” an urban designer familiar with new urbanism, or to the development review staff. It is the town architect, design professional, or planner, rather than the zoning administrator, who is often given the responsibility for ensuring the correct implementation of the form-based code (or at least the “design” parts of it).
- Seek to streamline the development process. Although conventional zoning schemes can incorporate procedural reforms and faster review times for smart development, those are not usually their primary purposes.

CORE ELEMENTS OF FORM-BASED CODES

A review of several form-based codes reveals the following elements are included (although not every form-based code includes each or all):

1. A “regulating plan”
2. Building envelope standards
3. Architectural standards
4. Street and streetscape standards
5. Broad parameters for uses
6. Administrative provisions including expedited permit process

1. Regulating Plan

The regulating plan is based on a principle that is similar to the “specific plans” routinely prepared and implemented by cities in California – the plan becomes a part of the regulations. Form-based codes usually indicate some of the rules right on the map itself (for instance, build-to lines). Within Georgia’s context, the regulating plan should be considered more or less the same thing as the “future development map” which depicts character areas.

Options for coding according to character or design include the following:

- Coding by character area (center, neighborhood, etc.). This is the approach followed in this module. It establishes rural/exurban, traditional neighborhood, and urban character areas and also accommodates a “suburban” residential district. As noted in the

commentary, suburban residential districts if they are accommodated need to be improved (e.g., retrofitted into traditional neighborhoods).

- Coding by street type. As an alternative to geographic (character areas), some applications of form-based codes involve coding by street type. This approach appears to apply most often when preparing corridor and subarea plans (i.e., less than the entire community). This module makes use of the term “storefront” streets and provides regulations that apply only to those streets. This code provides a recommended traditional neighborhood street cross-section that also serves as a “coding by street type” example (see §9-5-5 of this code module). Local governments that want to regulate by street type rather than (or in addition to) character areas would adopt a street typology. Except for those references, this module does not utilize a coding by street type approach. A simple typology that might be employed for that purpose is as follows:

Commercial Streets and Alleys
Traditional Neighborhood Streets
Conventional Suburban Residential Streets
Rural Roads and Scenic Corridors

- Coding by building type. Some form-based codes provide specifications for by the type of building (e.g., shopfront building, townhouse, etc.). This module does not utilize that approach.
- Coding by transect. For more information on the concept of a “transect” see Duany and Talen (2002) or the SmartCode by Transect Codeware Company.

2. Building Standards

Form-based codes regulate heights and placement of buildings on the lot. They go further than conventional zoning by specifying additional regulations, which include but are not necessarily limited to the following:

- Minimum as well as maximum building heights. Height is usually specified in number of stories rather than height in feet.
- Required “build-to” lines and other setbacks. Build-to lines are often imposed in order to ensure that new buildings respect the pattern along a street formed by existing dwellings or businesses.
- Minimum building width or the percentage of lot frontage occupied by building. Building frontage requirements are illustrated in this module.
- Building depth. The depth of buildings may be established by existing building patterns and need to be replicated in new construction. This module does not provide a code provision for building depth since it is not very common and specific applications vary too much to suggest code provisions absent a specific context.
- Location of parking. Model code provisions provide for parking restrictions (to side and rear yards). Form-based code provisions also may address the provision of on-street parking which is consistent with principles of traditional neighborhood development.
- Density or intensity. Some form-based codes do not establish density limitations in units per acre. A floor-area ratio can also be used.

A key goal of form-based codes is to shape the public space of the street with buildings, and the standards are centered on attaining that goal.

3. Architectural Standards

Such architectural standards usually emphasize the relationship of development to the public street and other public spaces. Hence, they emphasize the front façade of buildings (e.g., specifications for front porches). They may include facade design requirements for both general building types and special buildings which indicate where and how high street walls should be. They usually do not require that a particular architectural style be followed. These include:

- Recommended (or required) materials
- Configuration of building walls, roofs and parapets
- Doors and windows
- Porches, stoops, awnings, etc.
- Common spaces (areas under common ownership, usually greenspaces)
- Signage, lighting and the placement of mechanical equipment

4. Street Standards

These address the characteristics of streets, either by character area or by type of street. These standards are intended primarily to support pedestrian activity and include the following:

- Travel lane pavement widths. The width of a travel way of a road contributes to or detracts from the character of a neighborhood and development alongside streets. Wider pavements can be provided to accommodate on-street parking or bike lanes. Suburban streets are often too wide since ample off-street parking is required. This code provisions a recommended traditional neighborhood street cross-section that also serves as a “coding by street type” example (see this code module).
- Drainage and curb radii. The design of roads and their drainage features are important contributors to (or detractors from) desired character. It is generally incompatible to have vertical concrete curbs in rural/exurban areas, for instance. Open drainage swales along a rural road are more compatible. In some older towns of Georgia streets were built with granite curbs, so the type of curb can also be important to the character of a place. Traditional neighborhoods may have tight (less) curb radii, and inserting curbs with larger radii may detract from traditional neighborhood character.
- Sidewalk dimensions and crosswalk requirements. Wider sidewalks (8-10 feet in width) are needed in pedestrian friendly retail districts (also referred to as “shopfront streets”). The location of a sidewalk is also important – in traditional neighborhoods, sidewalks are often placed behind a strip of undeveloped land containing street trees that lines the street pavement (see illustration in this code module). In other areas, sidewalks might meander (curve in a regular or irregular pattern) rather than be placed exactly parallel to a grid street system.
- Configurations for on-street parking. Traditional neighborhood character areas and retail districts often provide for on-street parking which contributes to a retail district or traditional neighborhood’s character. See illustration in this code module.
- Street trees and planting requirements. Street trees add tremendously to shade, comfort, and character of an area. Street trees might be regularly spaced, or they may be irregularly spaced where opportunities exist (for instance, see illustration in § 9-5-5 of this code module), or they might be grouped together and spaced randomly to achieve a natural clustering effect in a rural/exurban area. For more information on appropriate landscaping, see “Landscaping and Buffers” of this Model Land Use Management Code.

- Street furniture and other streetscape improvements. This module provides some basic streetscape provision for urban areas (benches, lighting, etc.).
- Block widths and perimeters. Street intersections form blocks, and the size of block can contribute substantially to (or detract from) the existing development pattern. Form based codes can specify the desired street network and block patterns and how civic squares, plazas, and greens relate to the street system. This module provides block width and block perimeter regulations and examples of appropriate open spaces by selected types of character areas.

5. Use Regulation

As noted above, form-based codes usually provide broad parameters for land uses if the character area remains subject to underlying conventional use regulations. Form-based codes go into greater detail, with tables of permitted uses, where they replace conventional zoning schemes. For instance, the SmartCode provides a permitted uses matrix with land use types specified either as “by right” or “by exception” according to the various “tiers” (context zones). This module provides a basic use regulation matrix.

6. Administrative Provisions

Like a conventional zoning code, a form-based code must specify the process in which development proposals get approved and who is responsible for approving development. As noted above, the town architect or design professional will have some role in approving the design of buildings. How the form-based coding procedures relate to other aspects of the development review process, such as review and approval of civil drawings by engineers, must also be taken into account. When one considers that form-based codes emphasize design but not some of the particulars of development site planning (e.g., grading practices and stormwater management), it is not surprising that they supplement but do not replace unified development ordinances. This module does not specify administrative provisions, since those are generally covered elsewhere in this model land use management code (see § 7-1 of the model land use management code).

APPLICATION

Two Approaches to Form-Based Coding

There are really two approaches to form-based coding, “prescriptive” and “contextual.” Prescriptive approaches are based on the community’s vision of what is the ideal form within the area. Contextual approaches look to the characteristics of the surround built environment for guidance in regulating the physical form of new development (Rouse and Zobl 2004). Form-based codes for character areas that are partially or substantially developed will likely use the “contextual” approach, taking cues for design based on what already exists in the character area. Prescriptive approaches are not so constrained; they flow from the community’s vision of what an area should become in the future. Such prescriptive approaches are therefore more likely to be applied to new communities or character areas with substantial undeveloped land.

Geographic Scale Applications

- Downtowns and urban centers
- Heavy and light rail stations

- Redevelopment or revitalization districts
- Traditional neighborhoods
- New large-scale communities

Downtowns and urban centers are the most frequent subject of form-based codes. Because of their urban scale, transit-oriented development areas are often candidates for form-based coding. They also are applied to neighborhoods, particularly where traditional neighborhood development principles are sought. Regulating new infill development in existing residential areas to ensure it respects the existing character/context is an increasingly popular application of form-based codes. Form-based codes have also been applied to revitalization districts, as in the case of Arlington County, Virginia’s Columbia Pike. There is a role for form-based codes in terms of regulating new communities as is shown in their use in implementing “specific plans” by local governments in California.

Local Government Applications to Date

This section provides brief references to local governments that have implemented form-based codes. California’s cities and counties were among the first to implement form-based codes, usually as a mechanism for implementing a “specific plan” (Rouse and Zobl 2004). As noted above, one of the first efforts to apply form-based codes to revitalize existing, older corridors is Arlington, Virginia’s Columbia Pike form-based code. It seeks to foster a "Main Street" through a mix of shop fronts, sidewalk cafes, and other commercial uses at street level, overlooked by street trees and upper-story residences and offices. The design for Columbia Pike includes several new plazas and civic squares. It includes an expedited approval process which takes between 30 and 60 days.

The City of Farmers Branch, Texas, adopted a form-based code for an area surrounding its DART Light Rail Station. In the Farmers Branch Station Area, the existing zoning was replaced with the form-based code. Kendall, Florida (in Dade County) adopted a form-based code for its downtown to promote mixed use development surrounding its existing shopping mall. Other known form-based codes are listed below:

Contra Costa County, California	Petaluma, California
Chicago, Illinois	Woodford County, Kentucky
Hercules, California	Syracuse, New York
Iowa City, Iowa	Saratoga Springs, New York

A MODEL FORM-BASED CODE

To suggest that a “model” form-based code can be developed would be counter to the underlying logic of developing character areas. No single set of suggestions can be generalized to all types of character areas that might be identified by local governments as a part of the community visions and future development maps. Character areas must be locally derived through visioning processes or design charrettes. Such exercises cannot take place without some reasonable inventory and assessment of the characteristics of the built environment (except in case of new communities on undeveloped lands, in which case aspirational (or prescriptive) standards can be imposed).

Although the SmartCode includes regulations for natural, rural, and suburban “context” zones, the vast majority of applications to date favor urban areas. Despite the fact that each urban

area is different, form-based codes have some similarities that can be made evident and generalized in a module for inclusion in the Georgia Department of Community Affairs' model land use management code.

ELEMENTS OF THE MODEL CODE THAT CONTRIBUTE TO FORM-BASED CODING

While the model land use management code prepared by the Georgia Department of Community Affairs does not specifically address form-based coding (until the addition of this module), it was designed mostly to be an alternative to conventional zoning. Therefore, it has certain modules (code provisions) that relate to design and therefore can serve as possible inputs to preparing form-based codes. Those modules that have usefulness in that regard are referred to in the preamble to this module and also summarized in this section.

§4-2 Alternative Street and Pedestrian System Standards. This module provides definitions of street types that are more consistent with smart growth objectives than the conventional hierarchy of arterial, collector, and local streets. Since form-based codes can be organized by types of streets (including alleys, lanes, streets, avenues, and boulevards), it should be consulted for applicability and the travel width standards may be appropriately integrated into a form-based code.

§4-3 Bicycle Facility Specifications. Like the alternative street and pedestrian system standards, this code section may be appropriately consulted and applied in form-based codes where the desired street characteristics include bicycle access.

§5-2 Development Performance Standards. Form-based codes provide regulations for building heights, yards, landscaping, and building intensity. This module of the model code also regulates these features of development, though the regulations are specified according to use (not zone). By determining which uses are generally appropriate in each character area, as all form-based codes do, the standards recommended in this module may be applied as appropriate.

§4-4 Tree Protection. Form-based codes typically require the planting of street trees. Section 4-4-5 addresses requirements for and the protection of street trees. Therefore, this module might be consulted as appropriate.

§4-5 Landscaping and Buffers. This module, which includes illustrations like a form-based code, specifies landscape strips for parking lots which may provide input to a form-based code. The buffer provisions in this module apply by use but could still be used in a form-based code that applies to character areas.

§7-9 Residential Infill Development. The residential infill overlay district established by this module may correspond with a traditional neighborhood district. It addresses the compatibility of residences with regard to their height, width, and placement, in the context of surrounding uses. In that sense, this module has characteristics of a form-based code.

§7-7 Scenic Corridor Overlay District. Though set up as an overlay district to a conventional zoning or land use districting scheme, this module has elements of form-based coding for rural areas, including roadway buffers and building setbacks that will preserve rural character and scenic views.

§7-8 Rural/Suburban Arterial Corridor Overlay. This module is intended to ensure good aesthetic appearance of development within corridors. It promotes “focus area” development which is similar to new urbanist principles which call for higher intensity on corner lots. Since the module includes provisions for architecture, pedestrian access, amenities along the street front, it may be considered applicable as input to a form-based code.

§9-1 Downtown Specific Plans. As noted earlier, form-based codes combine planning and regulation. This module is based on the same premise. A downtown plan is adopted by reference and becomes regulation. As the name implies, this module is specifically designed to apply to downtowns, and it contains a number of “smart development” features such as mixed residential-commercial buildings and building orientation to the street. Therefore, this module may provide inputs to a form-based code.

§9-2 Design Review. This module contains provisions for a design review board. Form-based codes usually specify an administrative review process for design plans, as opposed to review by a committee. However, the design review module could provide important detailed input to the administrative provisions of a form-based code, since the application procedures and requirements must be specified.

§9-5-1 Character Area Regulating Plan

Within Georgia’s context, the regulating plan should be considered the same thing as the “future development map” of the local comprehensive plan, which depicts character areas.

Wide variations are possible in defining character areas. This Section provides a highly simplified division of character areas into only four types. Each of the broad character area types can be further divided into zones, districts, or more refined character areas. That is especially true of the “urban” character areas, which may be divided into cores, centers, and corridors, for instance. Also, although not provided in the future development map, special districts can be delineated, created, or provided for in the future to be added to the future development map upon application and by amending the future development map. Local governments would substitute here the names of the character areas portrayed on the future development map.

Commentary on Suburban Residential Designation: Suburban residential areas (i.e., conventional subdivisions with curvilinear streets and cul-de-sacs (“loops and lollipops”)) should generally not be considered “character areas,” since they do not provide development patterns consistent with the quality community objectives of the Georgia Department of Community Affairs’ local planning standards. This category is included in the form-based code module, however, because many local governments have suburban residential areas. Local governments should not apply that category unless they have developed suburban residential areas. If a suburban residential designation applies, the emphasis should be on improvement of the development patterns in a manner more consistent with quality community objectives, namely – certain retrofitting measures which might include converting excess pavement surfaces of suburban streets to bike lanes, street trees, wider sidewalks, and traffic calming. Connections through cul-de-sacs and modifying the existing road pattern to provide for smaller blocks are other measures that should be considered for retrofitting suburban areas into neighborhoods with character.

Commentary on Alternatives: As an alternative to geographic (character areas), some applications of form-based codes involve coding by street type. This approach appears to apply

most often when preparing corridor and subarea plans (i.e., less than the entire community). Local governments that want to regulate by street type rather than character areas could adopt a street typology. If so, this section on from “Character Area Regulating Plan” should be changed to Street Frontage Regulating Plan. This module makes use of the term “storefront” streets and provides regulations that apply only to those areas.

§9-5-2 Definitions

This section includes selected definitions related to architecture and character. They may or may not appear in the text of this code module. Other sections of the model land use management code should be consulted, as appropriate, for definitions.

§9-5-3.1 Permitted, Exception, and Excluded Uses

Form-based codes usually have highly simplified lists. Zoning ordinances, on the other hand, specify in much greater detail the permitted uses. Localities should use their judgment whether a simplified list such as this one will suffice.

§9-5-4.1 Building Height

Form-based codes usually regulate the number of stories rather than establish an absolute maximum in feet. Furthermore, form-based codes often include minimum building heights in stories, which helps to ensure that the street is “framed” by the buildings, giving the pedestrian some sense of “enclosure.” Height in the urban character area may be greater than ten stories, depending on the particular locality and its objectives for development.

§9-5-4.2 Building Lines

A build-to line may be appropriate in rural areas to allow older structures to dominate the view, or to ensure that placement of dwellings and structures is not incompatible with established building lines. A build-to line is often used instead of minimum and maximum front building setbacks in TND and Urban character areas. TND and URB districts may require a build-to line or, as an alternative, minimum and maximum front building setbacks. Either approach helps to ensure the buildings will be relatively close to the street. In TND and URB character areas, if alleys are provided, there should be no rear setback so that detached garages can be placed directly on the alley right-of-way line. Where the table provides a range, the locality should decide which number is most appropriate.

§9-5-4.3 Minimum Building Frontage

Minimum building frontage is a land use regulation designed to ensure that the development has a street “presence.” If the buildings do not frame the street, they will not be as inviting to pedestrians. Minimum building frontage requirements are especially important in urban character areas and can be applied in TND character areas. They are unlikely to be applied in suburban and rural environments. Where the table provides a range, the locality should decide which number is most appropriate.

§9-5-4.4 Building Intensity

Building intensity in urban areas is often regulated by floor-area ratio. Such a regulation is not typically applied in suburban or rural/exurban areas. Where the table provides a range, the locality should decide which number is most appropriate.

Commentary on minimum floor area ratios: Some communities may wish to establish minimum floor area ratios for certain urban or traditional neighborhood character areas in order to ensure that a certain minimum threshold of development intensity occurs. This model code does not establish or recommend minimum floor area ratios, however.

§9-5-4.5 Maximum Impervious Surface Coverage

Maximum impervious surface coverage is important in water supply watersheds and other environmentally sensitive areas. It is a better regulation to use for building and pavement intensity in rural and suburban character areas than floor-area ratios. Where the table provides a range, the locality should decide which number is most appropriate.

§9-5-4.6 Maximum Block Sizes

Maximum block widths and maximum block perimeters are employed in TND and URB character areas in order to keep the scale of development small and allow for short distances navigable by pedestrians. A maximum block width is most commonly used. However, maximum block perimeters can also be employed so that irregular-shaped lots and blocks do not become too large (since walking distance is affected by block depth as well as block width. Suburban residential block widths and perimeters are considered too large to enable convenient pedestrian access; in such cases it is recommended that mid-block pedestrian easements be provided (see figure) Blocks become smaller in urban areas, and the smallest block perimeters are those in downtown cores, where streets intersect at as close an interval as 300 feet. Where the table provides a range, the locality should decide which number is most appropriate.

§9-5-4.7 Recreation and Open Space

Exurban and rural areas have large lots, and recreation and open spaces are provide on individual lots and farmsteads. Within suburban residential developments, there may be no open space set aside, except within the lots themselves, or perhaps within a community recreation tract (e.g., pool, tennis courts, clubhouse) or within parks or playgrounds. Traditional neighborhood developments use greens, squares, and pocket parks as organizing features. A wide variety of smaller open spaces can be incorporated into urban districts. Where the table provides a range, the locality should decide which number is most appropriate.

§9-5-5.1 Off-Street Parking Requirements

The Smart Code (Transect Codeware Company) provides parking requirements which vary based on the transect (intensity of development). For instance, in areas dominated by automobile access, parking requirements are higher than in Urban or TND character areas, where a larger percentage of trips can be made by alternative modes such as transit, walking, and bicycling.

§9-5-6 Street Requirements

Refer to §4-2 of this model code for additional specifications for healthy streets. This section provides basic specifications for commercial streets, alleys, a traditional neighborhood street (with illustration), and a rural lane.

§9-5-8 Architectural Requirements

The architectural guidelines are intentionally brief. More information on design guidelines can be found in §9-1 of this model code for downtowns and in §9-3 generally.

§9-5 Form Based Code References

Arlington County, Virginia. 2004. The Columbia Pike Special Revitalization District Form Based Code. Section 20 (Appendix A" of the Zoning Ordinance, "CP-FPC" Columbia Pike Form Based Code Districts.

Burdette, Jason T. 2004. Form-Based Codes: A Cure for the Cancer Called Euclidean Zoning? Major paper for Master of Urban and Regional Planning, Virginia Polytechnic Institute and University, Blacksburg, Virginia.

City of Atlanta. 2000. City of Atlanta Neighborhood Commercial Zoning District Regulations. Contra Costa County, California. The New Pleasant Hill BART Station Property Code: Architectural Standards. (final draft, not dated) Geoffrey Ferrell Architects, LLC, Washington, DC.

Congress for the New Urbanism. 2004. *Codifying New Urbanism: How to Reform Municipal Land Development Regulations*. Planning Advisory Service Report No. 526. Chicago: American Planning Association.

Davidson, Michael, and Fay Dolnick. 2004. *A Planners Dictionary*. Planning Advisory Service. Chicago: American Planning Association.

Duany, Andres, and Emily Talen. 2002. "Transect Planning." *Journal of the American Planning Association* 68, 2: 245-266.

Farmers Branch, Texas. Farmers Branch Station Area Form-based Code.

Ferrell Rutherford Associates. N.d. The New Urban Code for Woodford County, The City of Versailles, and the City of Midway (Kentucky).

Katz, Peter. 2004. Form First: The New Urbanist Alternative to Conventional Zoning. *Planning* (November 2004).

Petaluma, California. Central Petaluma Specific Plan Smart Code®.

Rouse, David, and Nancy Zobl. 2004. Form-Based Zoning. *Zoning Practice* 5 (May 2004).

Rouse, David, Nancy L. Zobl, and Graciela P. Gavicchia. 2001. Beyond Euclid: Integrating Zoning and Physical Design. Part One: The Evolution of Physical Design in Zoning. *Zoning News* (October 2001).

Rouse, David, Nancy L. Zobl, and Graciela P. Gavicchia. 2001. Beyond Euclid: Integrating Zoning and Physical Design. Part Two: Integrating Zoning and Physical Design. *Zoning News* (November 2001).

Santa Barbara County, California. 2003. The Isla Vista Form-based Regulating Code. (Draft 6-05-03). Opticos Design.

Sharpe, Jeremy E. 2004. An Examination of the Form-based Code and its Application to the Town of Blacksburg. Major paper for Master of Urban and Regional Planning, Virginia Polytechnic Institute and University, Blacksburg, Virginia.

Tracy, Steve. Spring 2003. *Smart Growth Zoning Codes: A Resource Guide*. Sacramento: Local Government Commission.

Transect Codeware Company. SmartCode. Municipal Code Corporation.

U. S. Department of Agriculture, Forest Service. September 2001. *The Built Environment Image Guide for the National Forests and Grasslands*.
<http://www.fs.fed.us/recreation/programs/beig/>

Woodford County, Kentucky. The New Urban Code for Woodford County, The City of Versailles and the City of Midway. Ferrell Rutherford Associates. Washington, DC.

§9-6 Character Districts

This module is intended to provide local governments with an overlay district system of eight character districts which can be overlaid on existing conventional zoning districts (or land use intensity districts established in §7-4 of this model code) to implement typical character areas that might be designated in the local comprehensive plan. Hence, local governments that use this module can implement the character areas described in their comprehensive plans while still maintaining conventional zoning (or land use intensity districts).

§9-6-1 Character Districts Established

It is assumed that the local government has adopted a comprehensive plan pursuant to the Minimum Planning Standards effective May 1, 2005, which among other things require the delineation of character areas on a future development map. The local government with character areas already delineated will use their adopted character areas, rather than the ones described above. However, chances are good that the seven character areas described in this module (the eighth is really a non-character area which would not have implementing regulations) can be modified to fit the specific local context, since they cover the entire rural-to-urban continuum.

In order to provide guidance to planners on how the character and design districts can work with the land use intensity [conventional zoning] districts established in this model code, the following table is provided. Planners are encouraged to consult this table in drawing boundaries of land

use intensity [conventional zoning] districts in order to implement character area designations of the comprehensive plan.

**RECOMMENDED COMBINATIONS OF
LAND USE INTENSITY DISTRICTS
AND CHARACTER DISTRICTS**

Land Use Intensity District (see §7-4) Applicability to Character District		1	2	3	4	5	6	7	8
		Conser- vation	Conventional Subdivision	TND	Pedestrian Retail	Highway Business	Mixed Use	Campus	Undesig- nated
AG	Agricultural	P	X	X	X	X	X	P	P
RR	Rural Residential	C	X	X	X	X	X	X	P
SR	Suburban Residential	X	X	X	X	X	X	X	P
UR	Urban Residential	X	X	P	C	X	C	X	P
OR	Office Residential	X	C	P	P	P	P	P	P
NC	Neighborhood Commercial	X	X	P	P	P	P	C	P
HB	Highway Business	X	X	X	X	P	X	X	P
CBD	Central Business District	X	X	P	P	C	P	X	P
LI	Light Industrial	X	X	C	C	C	C	C	P

P = Application can be made without restriction to combine these pairs.

C = Application can be made but with possible conditions on their combination.

X = Application cannot be made to combine this zoning and character/design district.

Example: The first “x” in the table shows that the Agricultural Land Use Intensity District is appropriate (application can be made to that land use district) if the property is located within the Conservation District.

§9-6-6 Campus Character District

Institutional campuses are usually highly individualized and unique. This character area encompasses many different types of development laid out in a campus style, including college and university campuses, large churches, civic properties, and business and industrial parks. Hence, character cannot be generalized except in terms of a few broad principles.

§9-6-10 Undesignated

When local governments prepare character area (future development) maps, they are required to show the entire city or county jurisdiction as lying within a character area. No property can be excluded from a character area under the state’s planning rules. However, in practice, the application of architectural or other aesthetic requirements may face political obstacles. There is a chance that local governments will not want to apply character area regulations to certain parts of the community. This category was created for that purpose – so that the character districts would be comprehensive in terms of covering the entire city or county, but enabling the local government to have a category were character requirements do not apply.

PART TEN PROCEDURES, BOARDS, AND COMMISSIONS

§10-1-7 Public Hearing Notice

It is important not to require notice of the location of the property for applications initiated by the local government, as it may cover a large territory, possibly the whole jurisdiction. Specifying location in such cases would be problematic.

§10-1-13 Procedures For Conducting Public Hearings

Commentary by Legal Counsel: Legal counsel advises that the procedures for public legislative hearings by the local government or planning commission should not apply to the Board of Appeals which is conducting an administrative hearing rather than a legislative hearing. The same is true if the planning commission, instead of the Board of Appeals, is conducting an administrative hearing, such as a variance hearing. Legal Counsel recommends that the ordinance provide that the Board of Appeals or the Planning Commission, as the case may be, has the authority to establish their own procedures for conducting a hearing. This can be done because the adoption of rules for administrative hearings is not required to follow the rigorous procedures under the Zoning Procedures Act.

Commentary (alternative view to Legal Counsel): It may not be necessary to apply public hearing procedures to the Board of Appeals, as Counsel cautions. However, the Board of Appeals, or the planning commission (whichever is holding a quasi-judicial or administrative proceeding with regard to a variance) is nonetheless required to hold a public hearing. Public hearing procedures are different from administrative or quasi-judicial proceedings. In the case of a variance, the Board of Appeals or other body is required to, in essence, do both, hold a public hearing, and then proceed with determining the facts and applying the law. Hence, it seems that such boards need to have adopted public hearing procedures to provide fairness to applicants and interested individuals that speak at the public hearing portion of the meeting. It is true that the Board of Appeals could simply adopt their own procedures, which may differ from the public hearing procedures in this module. However, appeals boards in small, rural local governments might fail to take such action and as a result never adopt separate rules of procedure, for public hearings or for administrative proceedings. Hence, it makes sense, despite the inherent risk identified by Legal Counsel to have the public hearing procedures of this Code Section apply to boards of appeals.

§10-2 Planning Commission

The local planning commission is almost a given for most cities and counties that enforce land subdivision regulations and other land use regulations. Planning commissions act as a buffer between citizens and elected officials. The 1957 Planning and Zoning Enabling Act authorized the establishment of local planning commissions. However, with the adoption of constitutional powers to plan and zone, local governments are no longer bound by the 1957 act. In fact, the 1957 Enabling Act has been stricken from the law books and is no longer valid; nonetheless, it has provided the foundation for the composition and functions of most local planning commissions as they exist in Georgia today.

Although most local governments have already established a planning commission, some have not but will need to in order to administer portions of this model code. It is not essential to establish a planning commission to administer this code; one option is to establish a hearing

examiner (see Section 10-3 of this model code). However, the American Planning Association's "Growing Smart" project recommends in its Legislative Guidebook that statutes require the establishment of a local planning commission. This model ordinance for establishing a planning commission is based upon recommendations in the Growing Smart Legislative Guidebook, and on provisions of the old 1957 Planning and Zoning Enabling Act.

The local planning commission is almost a given for most cities and counties that enforce land subdivision regulations and other land use regulations. Planning commissions act as a buffer between citizens and elected officials. The 1957 Planning and Zoning Enabling Act authorized the establishment of local planning commissions. However, with the adoption of constitutional powers to plan and zone, local governments are no longer bound by the 1957 act. In fact, the 1957 Enabling Act has been stricken from the law books and is no longer valid; nonetheless, it has provided the foundation for the composition and functions of most local planning commissions as they exist in Georgia today.

§10-2-1 Creation and Appointment

The number of members on a planning commission is a local choice. It is recommended that the planning commission includes at least five members, and many planning commissions today consist of seven members. The number of years a planning commissioner may serve is also a local choice. The local residency requirement is not found in the 1957 Enabling Act. Some local governments appoint "alternate" members. The appointment of alternate members helps achieve a quorum in some cases, but it is not recommended because the position is voluntary, usually without pay, and "alternate" members would need to regularly attend meetings of the commission but should not be reasonably expected to attend such meetings when they are not authorized to vote. Yet another variation of planning commission appointments in practice (one not reflected in this model code) is the appointment of one member each, by each local elected official residing in and appointed from the district represented by the elected official making the appointment.

Commentary on alternatives. The Growing Smart Legislative Guidebook (American Planning Association) provides three options for the composition of a planning commission: (1) a commission consisting of all appointed citizen members; (2) a commission consisting of appointed members; and (3) a commission consisting of appointed members, the local government's administrative officials, and elected officials. Option 1 is recommended, though not specified, in this model code. Some local governments in Georgia designate the Local Governing Body itself as the planning commission, a practice which is not recommended, only because local governing bodies have such a wide range of other duties and hence, probably have insufficient time to devote to comprehensive planning matters. Local governments that wish to limit the planning commission to citizen members only might add the following language: "No member of the planning commission shall be an employee or elected official of the local government."

Commentary on compensation of planning commissioners. Most local jurisdictions do not compensate planning commissioners, except perhaps for travel expenses related to their duties. Compensating planning commissioners on a "per meeting" basis may result in abuse, as planning commissioners may have an incentive to hold unnecessary meetings (American Planning Association).

§10-2-5 Functions and Duties

The Planning and Zoning Enabling Act of 1957 provided certain additional authorizations that have not been included here. The 1957 Act authorized planning commissions to hire personnel, expend budgets, and undertake certain other functions that are normally not given to planning commissions in practice. The 1957 Act, which was based largely on the standard model act of the 1920s, was intended to provide some independence and autonomy on the part of the planning commission so that it would not be captured by local politics. It does not seem necessary to grant planning commissions those powers, given conventional practices in Georgia today.

§10-3 Hearing Examiner

This code provision establishes a hearing examiner and specifies the categories of land use matters the hearing examiner can hear. The hearing examiner may serve as an alternative to either a board of appeals (Section 1-10), or a planning commission (Section 10-2), or both. To be sure that all the powers and duties are authorized by law, it is recommended, if the local government elects to utilize a hearing examiner, that the hearing examiner be substituted for the Board of Appeals in §1-10.

§10-3-1 Creation and Appointment

The American Planning Association's Legislative Guidebook does not specify qualifications of a hearing examiner. Typically, the hearing examiner is an attorney, because of their familiarity with quasi-judicial and judicial legal proceedings. While an attorney might be favored for this reason, other professionals may have the experience and professional qualifications to serve as a local hearing examiner. Because of the need to have a professionally qualified hearing examiner, the person appointed to the position of hearing examiner should not have to be a resident of the local jurisdiction (i.e., a residency requirement should not be established for the hearing examiner). Where hearing examiner systems exist, the Local Governing Body typically contracts with a professional on a fixed fee basis (probably hourly in most cases).

§10-3-5 Functions and Duties

The hearing examiner may have the authority to administer zoning and other land use regulations in whatever role is delegated to them by the Local Governing Body. The hearing examiner may review applications for zoning map amendments or applications for land use approval and provide a recommendation to the Local Governing Body, but cannot be delegated legislative powers. The hearing examiner may be given authority to serve in the function conventionally assigned to a Board of Appeals. If so, the hearing examiner would have final authority to hear and decide variances to the requirements of this code and to hear and decide appeals of the decisions and interpretations of the Land Use Officer. The hearing examiner could also be assigned responsibility for the review and approval of preliminary and/or final subdivision plats.

Reviewing subdivision plats is a function normally assigned to a planning commission. If the local government elects to assign these functions to a planning commission, then the above provision should be deleted.

§10-4 Urban Redevelopment/ Downtown Development

Georgia's redevelopment laws provide various options for the exercise of urban redevelopment. Both cities and counties can exercise urban redevelopment through state enabling legislation called the Urban Redevelopment Law (O.C.G.A. § 36-61). Cities have an additional option through the Downtown Development Authorities Law (O.C.G.A. § 36-42) – cities can create a downtown development authority which can exercise urban redevelopment powers in city central business districts.

This module is written in a way that provides a county or city with a model ordinance for establishing an urban redevelopment agency and exercising urban redevelopment powers. Alternatively, it provides cities only with the alternative of establishing a downtown development authority to exercise urban redevelopment authority. Note that resolutions by the governing body must be adopted in advance of exercising urban redevelopment authority; the separate resolution can draw on the language presented in this module. There are options for cities, designated as (a) and (b), given in this Model Code, and the choice depends of course on whether the city chooses the Urban Redevelopment Law or the Downtown Development Authorities Law as its state enabling legislation.

For cities, which option is best? Generally, the laws provide for the same authority, though there are important differences between the two laws. Redevelopment pursuant to the downtown development authorities law is limited geographically to the central business district of cities (though city councils might take considerable liberty in defining that area), whereas the urban redevelopment law applies to both cities and counties and is not limited to the downtown central business district. The Downtown Development Authorities law also has greater specificity with regard to the composition of the authority and qualifications for membership and it requires certain reporting to the Secretary of State and the Georgia Department of Community Affairs.

It is worth noting that there is yet another state law which authorizes redevelopment – The Redevelopment Powers Law (O.C.G.A. § 36-44). That law allows for tax increment financing (referred to in the law as tax allocation districts). Because that law is complex, requires additional authority (local approval and state legislation) and is less likely to be used by the cities and counties that are the target for this Model Land Use Management Code, it is not addressed in this module.

§10-4-1 Authority

A resolution declaring the need for urban redevelopment is required by the Urban Redevelopment Law. Urban redevelopment project powers are numerous. Under this law, a city or county can sell and lease property, furnish public buildings and improvements, provide assistance, issue general obligation bonds and revenue bonds, contract for federal assistance and levy taxes and assessments for public improvements (O.C.G.A. § 36-61-16).

§10-4-2 Creation of Agency (Authority)

The Urban Redevelopment Law (O.C.G.A. § 36-61-17) gives several institutional options for the exercise of urban redevelopment. The law automatically creates a redevelopment agency in each local jurisdiction, but it is not activated until the Governing Body adopts a resolution declaring the need for such an agency. If it wants to, the local Governing Body can itself

exercise urban redevelopment powers (i.e., designate itself as the urban redevelopment agency). Alternatively, a county or city can establish a separate urban redevelopment agency or it has the option of designating a housing authority as the urban redevelopment agency. Municipalities can designate downtown development authorities as urban redevelopment agencies.

There are few known examples of the creation of urban redevelopment agencies by local governments in Georgia. The Columbus Consolidated Government has designated its housing authority as its urban redevelopment agency. Macon-Bibb County has established a Macon-Bibb County Urban Development Authority but it derives some of its powers from a state constitutional amendment. Albany has an inner city authority which appears to have been created by special legislation and Atlanta gives such authority to its development authority which exercises authority under various different state enabling statutes and/or special state legislation.

§10-4-3 Jurisdiction

Under the urban redevelopment law, in addition to the local government's own jurisdiction, an area extending five miles beyond the jurisdiction may be included in the redevelopment jurisdiction if consent from the local government(s) with jurisdiction is obtained (O.C.G.A. § 36-61-1).

Under the downtown development authority law, the area of development must be the city's central business district as determined by the local governing body. The law states in part that in the resolution, "the governing body shall designate as the downtown development area that geographical area within the municipal corporation which, in the judgment of the governing body, constitutes the central business district" (O.C.G.A. § 36-42-5).

§10-4-4 Purposes

The urban redevelopment law specifically encourages voluntary (private) renovation where possible (O.C.G.A. § 36-61-6). It provides that "to the extent that is feasible, salvable slum areas should be conserved and rehabilitated through voluntary action and the regulatory process" (O.C.G.A. § 36-61-3). It further provides that local governments exercising urban redevelopment "shall afford maximum opportunity, consistent with the sound needs of the municipality or county as a whole, to the rehabilitation or redevelopment of the urban redevelopment area by private enterprise" (O.C.G.A. § 36-61-4).

If a city is exercising its redevelopment powers via a downtown development authority within a defined downtown development area, then this paragraph (reference to 36-42) is appropriate to include. Furthermore, it may be appropriate with some changes, even if redevelopment is authorized under a different state enabling statute.

§10-4-5 Definitions, Downtown Development Area

Any such resolution adopted by a municipality should be accompanied by a detailed map showing the parcels included within the downtown development area.

§10-4-5 Definition, Slum

This term is from the Urban Redevelopment Law. “Slum” is an outdated word, and local governments would probably prefer not to use this term. Furthermore, the definition may prove to be a limiting factor in terms of where urban redevelopment powers can apply.

§10-4-5 Definitions, Urban Redevelopment Plan

An urban redevelopment plan is a clear prerequisite to acquiring land for purposes of undertaking a redevelopment project. The Governing Body must approve the urban redevelopment plan. An urban redevelopment plan does not necessarily have to be initiated and prepared by (or for) the Governing Body, however. The law authorizes private persons to prepare and submit an urban redevelopment plan (O.C.G.A. § 36-61-7).

§10-4-6 Composition of Downtown Development Authority

This provision is required if a downtown development authority is created.

§10-4-7 Authority Member Requirements; Officers

This provision is required if a downtown development authority is created. If the urban redevelopment agency is a housing authority, see O.C.G.A. § 8-4 for possible additional requirements.

§10-4-8 Urban Redevelopment Plan

Under the Urban Redevelopment Law, it appears that an adopted urban development plan has a binding effect on land uses within the urban redevelopment area. The statute states that “upon the approval of an urban redevelopment plan by a municipality or county, the provisions of the plan with respect to the future use and building requirements applicable to the property covered by the plan shall be controlling with respect thereto” (O.C.G.A. § 36-61-7). Hence, the urban redevelopment plan follows the same reasoning as a “specific development plan” (see §9-1 of this Model Code). This provision is not required for downtown development authorities, though a downtown development plan is required in order to exercise eminent domain (see later Code provision). Whether required or not, a plan for development or redevelopment is recommended.

§10-4-9 Powers of Urban Redevelopment Agency Limited

The powers described in this section can only be exercised by the local governing body (O.C.G.A. § 36-61-17).

§10-4-10(A) Agency Exercise Of Eminent Domain

The exercise of eminent domain for purposes of redevelopment is a potentially powerful tool for reversing decline and redeveloping blighted areas. The intent of the Urban Redevelopment Law is clearly that eminent domain should be used only if private market forces are unable to revitalize an area without public intervention. In cases where the land is not to be devoted to a public use, the law is clear that private property owners must be given the option of agreeing to redevelop the property according to the adopted redevelopment plan. Hence, eminent domain should be viewed as an option of last resort.

§10-4-10(B) Exercise of Eminent Domain by an Authority

Commentary on the Sale or Disposition of Redevelopment Property. The city or county may retain such property or interest for public use, in accordance with the urban redevelopment plan. Some local governments will condemn property and then sell it to a private developer. Under the terms of the Urban Redevelopment Law (O.C.G.A. § 36-61-10), the city or county may sell, lease or otherwise transfer real property in an urban redevelopment area or any interest therein acquired by it and may enter into contracts with respect thereto, for residential, recreational, commercial, industrial or other uses or for public uses. If the city [county] sells property in the urban redevelopment area, the property acquired shall not be sold for less than the fair value of the property for uses in accordance with the redevelopment plan. Furthermore, real property shall be disposed of to private persons only after completing reasonable competitive bidding procedures.

§10-4-11 Levying of Taxes, Fees or Assessments

This provision applies to downtown development authorities.

§10-5 Intergovernmental Agreement for Services

Research undertaken for Task 1 of this project found that there were rich opportunities for local governments to share personnel in areas of code enforcement, building inspection, and planning and land use regulation. Because the audience (intended user) of this model code is small cities and rural counties that are typically short on staff in these functional areas, this section provides a model intergovernmental agreement that can be mutually adopted by a service provider and a recipient of service. This module is based primarily on a model multi-jurisdictional agreement for code services, but it has been modified to include the possibility of other services as well. In most cases, it is anticipated that a county staff will be the service provider and will agree to provide certain services in a small city that does not have the volume of workload to justify hiring its own personnel; however, this is not necessarily the case. A city could very well be a provider of service to a county. Moreover, the service providers are not necessarily limited to another city or county—a regional development center may in some instances be able to provide certain services.

This module is formatted as a code section for purposes of consistency with the rest of the code. However, since this module would not be part of an adopted code, the section numbers should be deleted or changed as appropriate.

It must be recognized that any agreement is an exercise in negotiation, and that the provisions here are suggested as a basis of departure. It is impossible to present a model agreement that will accurately account for the many local conditions that will need to be factored into the agreement.

§10-5-1 Scope of Services

The list of codes should be updated as the state adopts different versions. This list was accurate as of December 2001. Also, if a local government chooses not to enforce one or more of these codes, reference to them should be deleted from this section of the agreement. Check the Georgia Department of Community Affairs' website for the latest versions of standard state codes.

§10-5-1.2 Code Enforcement Services

The agreement should specify in detail the names of codes to be administered and enforced by the service provider.

§10-5-1.3 Land Use Regulation Services

The list is representative of the types of regulations that might be administered under an intergovernmental service agreement. This listing should be modified as appropriate to specify in detail the names of all regulations to be administered and enforced by the service provider.

§10-5-3 Authorizations

Legal Counsel advises that only the local government as provided by contract should pay the service provider. All fees and fines should be deposited in the local government coffers, not kept by the service provider.

§10-5 References

Schretter, Howard. 1974. *Opportunities and Options for Local Building Codes Enforcement*. Athens, GA: Institute of Community and Area Development, University of Georgia.