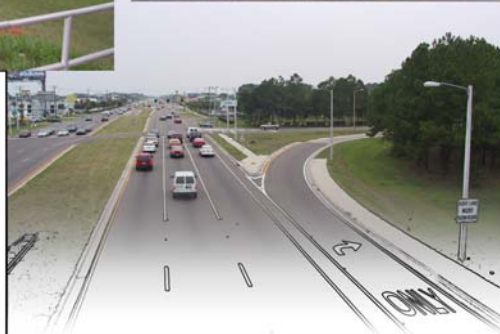




Guide for Analysis of Corridor Management Policies and Practices



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1. INTRODUCTION

This guide includes a work plan for assessing local government land development and access management practices. It also addresses how to prepare a conceptual plan for implementing corridor management at the local level. The guide does not address how to prepare a physical corridor management plan that identifies the preferred location and design of streets networks and access points. Rather, the objective of this guide is to help state transportation agencies and local governments identify and overcome barriers to effective corridor access management in the land development process. A related goal is to strengthen state and local coordination in access and development permitting.

The guide begins with an overview of corridor management planning and how it fits into the local planning arena. Topics include how corridor management plans advance Florida's growth management requirements and the benefits of corridor management planning. It then provides detailed guidance for the individual conducting the corridor management policy analysis (referred to in this guide as "analyst") on:

- steps in evaluating local government policies and practices,
- methods for identifying implementation needs, and
- a framework for recommending policy changes, including examples and resources for further information.

1.1 WHAT IS A CORRIDOR MANAGEMENT PLAN?

A corridor management plan is more than a roadway improvement study. It also addresses land use, access management, street networks and right-of-way needs along a major roadway. The "corridor" evaluated for the plan will therefore extend beyond the road right-of-way into the adjacent neighborhoods. The purpose of the physical planning effort is to evaluate roadway design and access characteristics, and propose changes that maintain reasonable access to property, while improving the safety and operation of the highway. Such changes may involve:

- medians or median opening closures,
- signal location and spacing,
- auxiliary lanes,
- right-of-way needs and requirements,
- site access and circulation design,
- land use and activity center concepts,
- improvements to the supporting roadway network, and
- improvements involving access for other transportation modes (e.g. bus pullouts, transitions for special use transit lanes or bus rapid transit, pedestrian crossing treatments).

Corridor management plans typically include a map and report establishing the desired location, spacing and design of median openings, signals and (driveway or street) connections. They should also include concepts for expanding the street network that runs parallel to and connects to the highway. Some corridor management plans are detailed maps with binding agreements that specifically indicate future

property access on a parcel-by-parcel basis. Most, however, are conceptual and serve as a guide for access decisions during development review or access permitting.

Because the corridor management plan affects the state highway and the surrounding community, it requires both state and local government approval. Official adoption by each implementing agency is necessary to establish the corridor management plan as a legal “standard” that can be enforced in development review and permitting. The plans are typically implemented through a combination of regulations, interagency or public/private agreements, design standards, and road improvement projects. These tools can be supplemented with binding agreements on site access, where such agreements can be legally applied or negotiated with individual property owners.

As individual development applications are received, the applicant is issued an access permit that conforms to the plan. If conformance cannot be achieved, the application may be denied. Another option is for the agency to issue an access permit outlining conditions requiring that the site access be relocated if an alternative point of access becomes available in the future. *NOTE: This type of permit condition should be recorded with the deed to the property, or it can be difficult to enforce if there is a change of ownership or if the original access permit is misplaced.*

1.2 INVOLVING THE PUBLIC IN CORRIDOR MANAGEMENT

Because corridor access management plans require stakeholder approval, they must be developed through a well-thought-out public involvement process. Public support is best achieved when stakeholders are involved in developing a vision for the corridor and in determining acceptable strategies for achieving improved access management. A reported benefit of the planning process is that it helps educate stakeholders on the need for access management and helps both state and local staff understand how best to refocus their policies or practices to achieve more lasting solutions.

Some public involvement activities found to be effective for corridor management planning include:

- one-on-one meetings with property owners regarding access changes,
- briefing elected officials on the importance of the plan and potentially controversial changes (e.g. medians or median opening closures),
- neighborhood charettes where interested parties can be engaged in visioning and design planning,
- open house meetings where property owners can see aerial photos with proposed access changes in relation to their property and learn about the importance of access management in a less formal atmosphere,
- a newsletter and website for the broader public, and
- media briefings and press releases on the project and how the public can participate.

1.3 CORRIDOR MANAGEMENT IN FLORIDA

Corridor management is defined in Florida planning law as “coordination of the planning of designated future transportation corridors with land-use planning within and adjacent to the corridor...” (Chapter 163.3164(30), F.S.). In Florida law, corridor management includes right-of-way preservation, access management, and growth management considerations. The emphasis of corridor management in Florida is on promoting the orderly development of a transportation network to serve land development. This helps

assure that transportation facilities will be adequate to serve existing and planned development, thereby maintaining concurrency as required by Florida's growth management law.

Corridor management in Florida has taken on a variety of forms tailored to the policies and desires of the affected local governments and each respective Florida Department of Transportation (FDOT) District. Some local governments have worked independently or with FDOT to create individual local ordinances to address these issues (e.g. Levy County US 19 Access Management Overlay, Hernando County Frontage Road Ordinance). Some Districts have coordinated with local governments on the development and adoption of a corridor management plan. Typically the impetus for developing these plans has come from the local government level in the context of an impending roadway improvement project, development pressure, or a level of service or transportation concurrency deficiency. Examples include:

- US 98 Corridor Access Management Plan or CAMP (FDOT District 1, POLK TPO, Polk County, City of Bartow, City of Lakeland)
- US 19 Access Management Plan (FDOT District 7, Citrus County)

Although advances are being made, most FDOT Districts and local governments continue to act independently. Districts are pursuing corridor management through project development plans, median reconstruction projects, and access permitting, with varying degrees of local government involvement. Likewise, local governments are evaluating development plans and access issues on a site by site basis. Few local governments have adequate measures for accomplishing coordinated street networks or unified site circulation systems along major highways. This is understandable in light of the separation of agency authority, roles and functions. However, the lack of a coordinated process continues to create a host of problems on both sides of the right-of-way line. The solution is for the various implementing agencies to coordinate transportation, land use, and street network planning along Florida's major highway corridors.

1.3.1 Corridor Management and Growth Management

Local governments in Florida are required to comply with a variety of growth management requirements, several of which relate to corridor management. Chapter 163, F.S., also known as Florida's Growth Management Act, requires each local government to prepare and adopt a comprehensive plan. As part of that comprehensive plan, §163.3177(6)(b) states that each local government must develop:

- (b) A traffic circulation element consisting of the types, locations, and extent of existing and proposed major thoroughfares and transportation routes, including bicycle and pedestrian ways. Transportation corridors, as defined in s. 334.03, may be designated in the traffic circulation element pursuant to s. 337.273. If the transportation corridors are designated, the local government may adopt a transportation corridor management ordinance.

Local governments are also encouraged to develop a community vision to guide their planning efforts. As part of that visioning effort, communities must hold workshops and public meetings that address certain required items including "Strategies to provide mobility within the community and to protect the Strategic Intermodal System, including the development of a transportation corridor management plan under s. 337.273. §163.3177(13)(c)."

Section 337.273 of Florida's transportation law addresses transportation corridors and sets forth the intent and requirements for corridor management. For example, §337.273(3), F.S. states:

- (1)(c) The designation and management of transportation corridors and the planning and development of transportation facilities within transportation corridors will substantially assist in

allowing government to alleviate traffic congestion...aid in the development of an effective transportation system that is coordinated with land-use planning, assist in planning for future growth, enable compliance with concurrency requirements, and alleviate the heretofore described health, safety, and welfare liabilities to the public.

(3) It is the intent of the Legislature that governmental police powers be utilized to the greatest extent possible by each governmental entity, and by two or more entities through corridor management agreements, to manage land uses necessary for transportation corridors; that property acquisition by donation, purchase, or eminent domain occur as far in advance of construction need as possible; and that property, needed to manage transportation corridors, be acquired and retained for future use to avoid the public liabilities for health, safety, and welfare heretofore outlined.

Regarding the process of designating transportation corridors and the requirements for corridor management ordinances, §337.273(3), F.S. states:

(6) A local government may designate a transportation corridor by including the corridor in the entity's comprehensive plan traffic circulation or transportation element. A transportation management ordinance may be adopted for designated transportation corridors. The transportation corridor management ordinance should contain the criteria to manage the land uses within and adjacent to the transportation corridor, the types of restrictions on nonresidential and residential construction within the designated corridor, identification of permitted land uses within the designated corridor, a public notification process, a variance and appeal process, and an intergovernmental coordination process that provides for the coordinated management of transportation corridors that cross jurisdictional boundaries with the plans of adjacent jurisdictions. Local governments may adopt such additional ordinances and regulations as necessary to manage designated transportation corridors.

Rule 9J-5.019(4) further requires local governments to address the following in the goals, objectives and policies of the transportation element of their comprehensive plan:

- (b) The element shall contain one or more specific objectives for each goal statement which...:
 - 5. Provide for the protection of existing and future rights-of-way from building encroachment.
- (c) The element shall contain one or more policies for each objective which address implementation activities for the:
 - 2. Control of the connections and access points of driveways and roads to roadways.
 - 4. For existing or future transportation rights-of-way and corridors designated in the local government comprehensive plan, establish measures for their acquisition, preservation, or protection.
 - 15. Provision of safe and convenient on-site traffic flow, considering needed motorized and nonmotorized vehicle parking.

As part of the growth management process, local governments are required to maintain FDOT level of service (LOS) standards on the Strategic Intermodal System (SIS), and to adopt LOS standards for other arterial roadways. One way to maintain planned levels of service on the SIS is by implementing a corridor access management plan. Such a plan should include a connected system of parallel and intersecting streets along controlled access highways on the SIS, as well as interchange area access management plans for the limited access highway system. The resulting corridor management plans will set forth a list of improvements that are needed to achieve mobility along the corridor. This list of improvements can be used to determine cost for proportionate fair-share mitigation and other developer contributions. Section 4.8 of this guide provides additional ideas on funding.

1.4 BENEFITS OF CORRIDOR MANAGEMENT PLANS

Corridor management plans offer benefits not available through reconstruction projects and access permitting alone. By cooperating in the development of a corridor management plan, FDOT and local governments can benefit as follows:

- The plan can be used to advance street network development and alternative access along a major highway in a coordinated, rather than incremental, fashion.
- The planning process creates an opportunity for local governments to work proactively with FDOT and property owners on network development strategies to accommodate locally desired development along major highway corridors.
- The plan helps to focus the discrete authority granted to FDOT (over access to state highways) with that granted to local governments (over land development and street networks) on accomplishing a common set of objectives.
- The plan improves compliance by prospective developers by providing advance guidance on approved access locations, as well as areas where service roads or access agreements may be required for consolidating access with adjacent properties.
- The plan can be used to define the roles, responsibilities and contributions of each involved agency in this process.

In the absence of a plan, existing property lines and lot sizes dictate driveway access to a state highway in many cases. FDOT is often unable to achieve alternative access to developments through access permitting or the roadway improvement process, due to lack of authority over transportation and development decisions beyond the right-of-way of the state highway system. At the same time, local governments have difficulty accomplishing a connected street system along the highway without a clear and equitable plan for achieving developer compliance. The result is a disconnected “hodge podge” of cul-de-sac developments and commercial strip stores with most uses requiring direct highway access. Although FDOT can purchase access rights to achieve full access control through its eminent domain powers, this is rarely feasible due to cost. Access rights are typically only purchased in high priority situations where the benefits would clearly justify the cost, such as around new interchange areas.

In sum, a coordinated corridor management plan can serve as a guide for future permitting and capital improvement decisions. It can confer added authority to state and local agencies for coordination and management of land development and access on roadways under state jurisdiction. It can also guide prospective developers as to approved access locations and areas where service roads or cross access may be required. The resulting coordination benefits both the public and private sector and can help overcome legal and political constraints to implementing access management.

1.5 IMPORTANCE OF POLICY SUPPORT TO LOCAL GOVERNMENTS

Local government adoption of implementing regulations, standards and procedures is critical to an effective corridor access management plan. It is not uncommon for state transportation agencies to focus extensively on technical aspects of access location and design on state highway corridors, with only secondary attention to the actions needed to implement the plan. As a result, the plans may never be implemented or may be undermined by inconsistent decisions and dissension among the implementing agencies during the development review and permitting process. Elected officials, developers, and agency staff may also act in contradiction to a corridor access management plan in the absence of a clear and coordinated implementation program.

Local governments rarely have the time and resources to conduct a thorough evaluation of their existing processes and the necessary implementing mechanisms after the plan has been developed. An effective approach, therefore, is to include these activities in the scope and budget for development of the corridor access management plan. For example, the FDOT *Scope of Services for District-Wide Access Management Support* could include the following task to complement corridor access management studies:

Task XX: Local Policy Analysis and Implementation Support

The purpose of this task is to evaluate local government policies, regulations and planning practices that impact access management on the state highway system and to identify strategies for improved state/local coordination in access management. The policy analysis and recommendations should highlight effective local policies and best practices, as well as any missing, inadequate or outdated policies. Policy recommendations and implementation strategies shall be presented to local agencies and FDOT access management personnel in a workshop format, with the objective of advancing state and local coordination in managing access to state highway corridors. Key items to address in the analysis include, but are not limited to, comprehensive plan policies, corridor or subarea plans, land development regulations, ordinances, development review procedures, coordination mechanisms and possible funding actions. See the FDOT *Guide for Analysis of Corridor Management Policies and Practices* for further information.

Task Products:

Summary of local government policies and regulations and coordination issues
Analysis of local government practices with regard to best practices
Implementation planning workshop
Policy recommendations and implementation strategies

1.6 OBJECTIVES OF THE POLICY ANALYSIS

Key objectives of the analysis of corridor management policies and practices are to:

1. Identify outdated or inadequate local government access management policies, regulations and design standards;
2. Identify and promote successful policies and practices across the various agencies involved in transportation and land use decision-making;
3. Determine internal and intergovernmental coordination issues that may impede plan implementation;
4. Promote awareness of access management issues along the corridor and best practices for addressing those issues; and
5. Facilitate policy changes and improved internal and intergovernmental coordination.

2. START UP ACTIVITIES

2.1 DETERMINE STUDY AREA

The corridor to be studied may already be predetermined as part of a broader transportation improvement project or corridor action plan. Alternatively, FDOT and local governments could initiate a corridor access management planning study for a major corridor that is important to regional mobility. High

priority corridors to study are those that have emerging development issues that need to be addressed or that present opportunities to prevent future problems. Older developed corridors with extensive retrofit need to offer fewer opportunities for effective advance planning. However, most corridors include a mix of both developed and undeveloped areas, offering insights into both retrofit and advance planning strategies that can be extended to other areas of a community.

The length and depth of the corridor to be studied is a function of local government boundaries, development patterns, and transportation or growth management issues in a particular area. For controlled access highways, study areas for corridor management planning will typically extend anywhere from 1000 feet to ½ mile on either side of the centerline. This will include the primary arterial roadway, abutting land development and existing local and collector street networks. For limited access highways, the study area would typically extend ½ mile on either side of each selected interchange as this represents the typical functional area of an interchange. However, the distance will vary depending on issues and characteristics surrounding a particular corridor. Because development issues may not be clearly understood until the study begins, it is helpful to have some flexibility to modify or extend the study area during the start-up phase.

NOTE: A physical analysis of corridor characteristics is not fully addressed in this guide; nor is guidance provided on establishing a physical street network and access design plan. However, as noted in Section 3.2, a scan of the property ownership and land use characteristics of the immediate corridor is needed to understand emerging policy issues, as well as effective practices.

2.2 CONTACT LOCAL GOVERNMENTS

Contacting local governments on the corridor is the first step in evaluating local corridor management practices. It is generally advisable to begin by contacting the planning director, or individual overseeing planning, in each city and county. Brief the planning director early in the process about the corridor management study and the access management objectives. Local planning directors can provide an overview of development trends on the corridor and access management issues important to the assessment and can help identify knowledgeable local staff to interview.

Local governments differ in terms of who in the community is most involved in access management issues. In larger communities, several individuals may be involved. In small communities the planning or public works director may have the most detailed knowledge. An early discussion with the local planning director can quickly orient the analyst as to who does what within the local government structure. *NOTE: Very small communities may have no planning director. In these areas, it may be the city manager or staff of the regional planning council that perform planning functions.*

2.3 COLLECT THE NECESSARY DOCUMENTS

During the start-up phase, the analyst should begin identifying and collecting planning, design and regulatory documents from each jurisdiction. Each of these documents will need to be scanned for information of relevance to access management. Key documents will include:

- Local Comprehensive Plan (e.g. Transportation Element, Land Use Element, Capital Improvements Element, Intergovernmental Coordination Element)
- Land Development Code
- Public Works Design Standards
- Sector or Subarea plans that include the corridor (including access management plans)

- Local Thoroughfare Plan
- Intergovernmental Agreements or Resolutions that impact the corridor
- Concurrency management and level of service information on the corridor

Corridor plans or work programs of the Florida Department of Transportation (FDOT) and area metropolitan planning organization (MPO) may also have information of importance to the study. These may include documents such as:

- FDOT corridor planning study
- FDOT Corridor Management Plan
- FDOT Work Program
- MPO Long Range Transportation Plan and Transportation Improvement Program (as it impacts the corridor)

3. REVIEW CURRENT PRACTICES

When most of the necessary information has been collected, the next step is to document and assess current corridor management practices and plans of each local government and the FDOT District. The purpose of the review is to obtain a snapshot of how the various agencies are managing land development and access along the highway corridor and any issues in current practice as defined by the participating agencies. The review should address state plans and policies for the corridor, local comprehensive plans and land development regulations (as they relate to access and corridor management), emerging land division and access issues along the corridor, and state/local coordination issues and practices.

The results of this analysis should be compiled in a technical memorandum and provided to each local government and the District staff involved in the study for review and comment, and revised as appropriate, prior to proceeding with the tasks in Section 4. This will ensure that the assessment is accurate and all key elements have been documented. Below is detailed guidance on the review of current corridor management practices.

3.1 DOCUMENT STATE POLICIES AND PRACTICES

An early step in the assessment process for state highway corridors is to document FDOT access management policies, practices, and improvement plans for the corridor. Start by identifying the existing access classifications for the corridor study area and the corresponding access spacing standards. Also collect any corridor improvement plans or studies that have been conducted. Personal interviews should also be conducted with FDOT District planning and access permitting staff to obtain a clear picture of the challenges and opportunities for managing development and access on the study corridor.

Specific issues to consider in assessing FDOT access management policies and practices on the corridor include:

1. Are there any plans for improving the roadway?
2. Does the corridor have concurrency problems or level of service deficiencies?
3. Are there access management plans on the corridor that involve service roads and/or interparcel cross access? If so, how is that addressed during access permitting?

4. How does the District access permitting process interface generally with the local subdivision and site plan review process?
5. How does the District handle requests for median openings? To what extent is the local government involved in the review process for median opening requests?
6. Do the access classifications change along the corridor? If so, do these changes in classification still make sense in the context of the corridor?
7. Does the District have a policy or practice related to coordinating with local governments on access management decisions?

3.2 IDENTIFY LAND DIVISION AND ACCESS PROBLEMS

In addition to the policy analysis, it is important to scan land use, property ownership and street network characteristics along the corridor. The purpose of the scan is to uncover emerging access issues along the corridor, and to obtain specific examples that can be used in the report and training effort. The scan may also uncover opportunities for consolidating site access, such as multiple properties under common ownership, or for extending street networks and improving street connections. This scan is best accomplished by obtaining aerial photos of the corridor and using a geographic information system (GIS). Another step is to drive the corridor and take photos and notes on examples of good and bad access management. These photos can be used in the workshop discussed in Section 3.4.

Most local governments have parcel data available for use in GIS mapping and analysis. This is typically available through the property appraiser's office or the local GIS department. Base maps, street networks, and other data can be found on the FDOT website or through other data providers, such as the Florida Geographic Data Library (FGDL). In addition, the analyst could examine existing and future land use maps or zoning information to determine if local zoning and rezoning practices are encouraging the creation of commercial strip developments, which lead to a variety of access problems.

Common land division and access problems to look for along corridors are illustrated in Figure 1. Other typical problems may include poor driveway design (e.g. overly wide entrances, short throat lengths), barriers between adjacent businesses or lack of cross access, driveways too close to interchange ramps, and too many or overly wide median openings.

FIGURE 1. LAND DIVISION AND ACCESS PROBLEMS

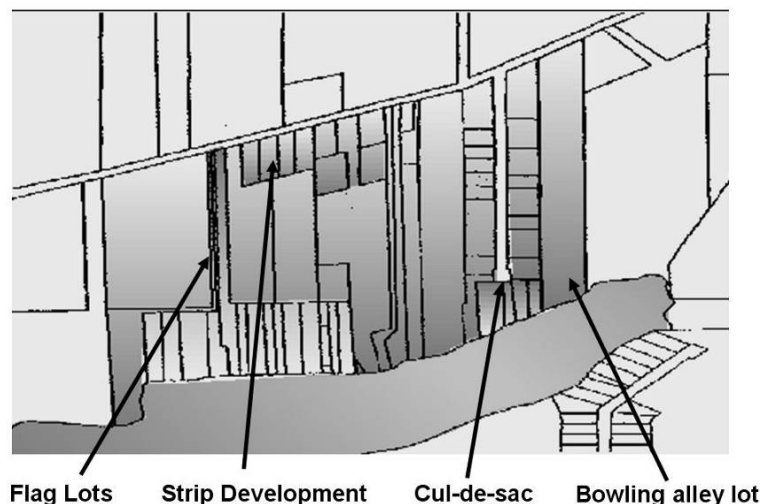
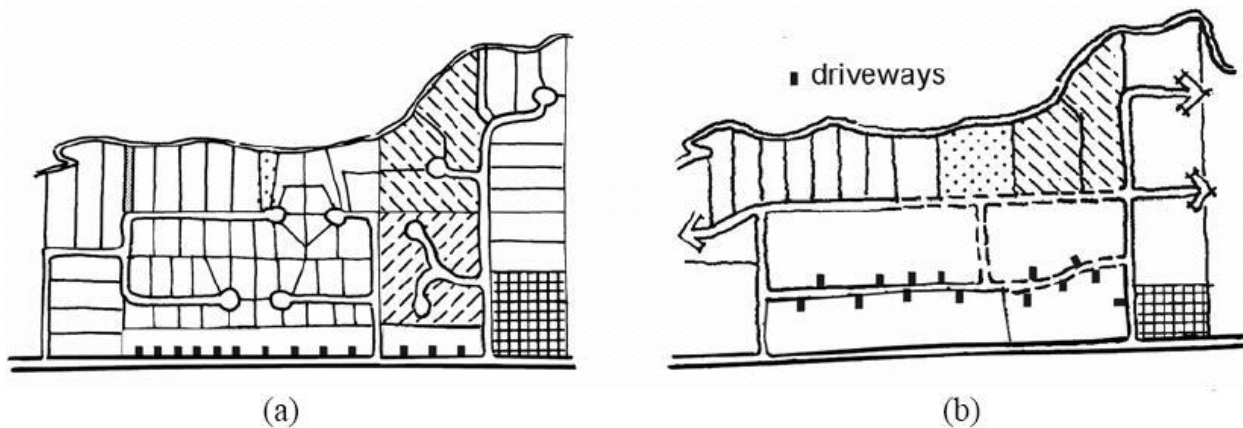


Figure 2 demonstrates typical connectivity problems that result through incremental lot splits and cul-de-sac development patterns. It also shows how connectivity of street networks helps to reduce the need for direct access to major roadways by providing for internal access, while also improving local mobility within neighborhoods. A well designed local street network will have a variety of street types, with the majority of access points focused off of the arterials and onto local and collector streets.

FIGURE 2. STREET NETWORK CONNECTIVITY AND ACCESS



- (a) Poor connectivity impedes walking, bicycling, and transit use. It also increases local trips on major roads and results in more properties requiring direct access to major roadways.
- (b) Improved connectivity shortens local trips and improves multimodal mobility. It also enhances local mobility and provides opportunities for internalizing site access off of major roadways.

3.3 DOCUMENT LOCAL GOVERNMENT POLICIES AND PRACTICES

Local government activities that relate to corridor management run the gamut from broad planning policies to specific roadway design standards. In addition, some communities have detailed and complex regulations and policies related to corridor management, whereas others may have few if any corridor management provisions in their code or plan. Therefore, the review of current practices will be unique to each community. It could be a simple exercise or one that is rather complex, depending upon the nature and extent of local corridor management practices.

Documenting current local government access management practices involves a detailed review of the local comprehensive plan, any subarea or thoroughfare plans, the land development code and other relevant ordinances not yet added to the formal code. It may also require a review of public works design standards and any administrative procedures for access-related activities (e.g. traffic impact assessment guidelines, access permit applications, etc.) that are not included in the land development code. This section provides tools and procedures for identifying and documenting local government corridor management policies and practices.

3.3.1 Complete the Assessment Checklist

Exhibit A is a checklist that identifies key elements to look for when assessing local access management practices. The checklist can be used as a tool to determine the strengths and weaknesses of local plans and

ordinances as they relate to access management and as a guide for new policies and standards that may need to be adopted. Use this checklist to guide your review of each document collected in the activities of Section 2.3. For example, identify all policies in the comprehensive plan that relate to access management and document and cite the policies for inclusion in the final report. Then proceed to the next question in the checklist, and so on. Do this separately for each local government whose practices are being evaluated and carefully document your findings.

It is helpful to reproduce the key corridor management policies and regulations in their entirety, although some may later be paraphrased. If all the policies or regulations are paraphrased at this early stage, some nuances could be overlooked – particularly if the individual identifying these items is inexperienced. Policies and regulations should also be cited with the appropriate policy number or ordinance section so they can be quickly located if questions arise. The goal of this process is to identify and cite all comprehensive plan policies, land development regulations, and access design criteria (e.g. turn lane guidance, driveway design, etc.) that relate to corridor management for each local government on the corridor.

Specific issues to look for in the analysis include:

- Missing Regulations
- Outdated or Inadequate Regulations
- Inconsistent State/Local Standards
- Effective Policies and Practices

3.3.1.1 Missing Regulations

Identify whether a regulatory element in the checklist from Exhibit A is not included at all in the local land development code or supporting ordinances. This helps clarify areas where a local government could expand its current regulatory practices. For example, the matrices prepared for communities on the US 19 and SR 27 corridors (Figure 3) showed that several of the communities had no regulations for minor subdivision and lot splits. In these communities, lot splits with small frontages had already begun to create access problems on their highway system. This then formed a basis for recommending adoption of lot split regulations in the final plan.

3.3.1.2 Outdated or Inadequate Regulations

Many local governments have access management requirements in their code that were adopted years ago and are now outdated or “inadequate” in that they no longer represent best practice. Typical examples of outdated or inadequate regulations in local codes are:

- Regulations that tie access spacing to site development characteristics (driveway classification), land use (commercial/office subdivisions), or zoning districts, as opposed to roadway level of importance (access classification). *NOTE: Contemporary practice is to establish access spacing and design criteria based upon roadway functional importance, not land use characteristics. In this way, agencies can manage the corridor as a whole, rather than in a piecemeal fashion. FDOT, for example, establishes access spacing through access classification of the roadway.*
- Outdated terminology, such as “curb cuts” or “curb breaks.” *NOTE: The term “connection” is preferred for access regulation because it encompasses both driveway and street connections. All connections are regulated by access spacing standards, not only driveways.*

- Low minimum access spacing and corner clearance standards that allow driveways in the physical and functional area of intersections.
- Regulations that “encourage” rather than require small stand alone commercial sites to provide cross access easements with abutting commercial sites. *NOTE: Cross access can be controversial and must be equitably and consistently applied. Encouraging cross access does little to ensure a coordinated approach to site circulation among properties under separate ownership.*

3.3.1.3 Inconsistent State/Local Standards

Another common problem is a tendency to establish access spacing standards that are inconsistent with those of FDOT for the state highway system. For example, in one study, the local government driveway policy established a minimum spacing standard of 275' and a limit of one driveway per property unless the property has more than 330' feet of roadway frontage. Neither access spacing standard was consistent with that of FDOT for state highways. This raises the potential for conflicts in the access permitting and development review process. In this example, the potential for inconsistent state and local decision-making is greatest on SIS roadways with an FDOT Access Class 3 (660'/440') or higher, as well as locations on the state highway system where the city or county has established an overlay district with special access criteria.

Local access management policies and standards must be consistent with those of FDOT to avoid legal or coordination problems in state access permitting and local development review. Where inconsistencies exist between state and local government permitting decisions or standards as applied to the state highway system, the FDOT has ultimate jurisdiction. *NOTE: The practice of tying access spacing to site development characteristics discussed above is another practice that can result in such inconsistencies with FDOT minimum access spacing standards for the state highway system.*

3.3.1.4 Effective Policies and Regulations

In documenting local regulations, look for that effective policies and regulations that may be transferable to other jurisdictions on the corridor. An effective policy or regulation is one that represents contemporary best practices. Best practices are addressed further in Section 4 of the guide. For specific regulatory language and additional information see also:

- K. Williams and G. Sokolow. *Model Land Development and Subdivision Regulations that Support Access Management*. Center for Urban Transportation Research/Florida Department of Transportation, January 1994.
- K. Seggerman and K. Williams, *Effective Strategies for Comprehensive Corridor Management*, Center for Urban Transportation Research, 2004.

3.3.2 Prepare a Comparative Matrix

Next, prepare a matrix comparing the existing policies and regulations of each local government on the study corridor. The checklist in Exhibit A provides a framework for the type of items to include in the matrix. Figure 3 is a simple example of how the matrix might be presented. Examples of other possible matrix formats are provided in Exhibit B. By offering a clear comparative view of jurisdictional practices, the matrix is an effective tool to illustrate potential strengths and weaknesses in local planning and regulatory practice. Matrices may simply identify the presence or absence of a regulatory element important to corridor management or include brief details where appropriate.

FIGURE 3. COMPARATIVE MATRIX OF LOCAL CORRIDOR MANAGEMENT POLICIES

Technique	Marion County	City of Ocala
Alternative Access	YES (Parallel Access)	YES (Shopping Centers, Retail)
Driveway Design	No throat length criteria	No throat length criteria
Driveway Spacing	YES	NO
Interchange Area Access	NO	YES
Continuation of Streets	YES	YES
Minor Subdivision Regulations	NO	NO
Reverse Frontage	YES	YES
Access Classification (State)	YES (AC 3, AC 5 by interchange) ¹	NO
Access Classification (Local)	YES	YES ⁴
Driveway Spacing Standards	YES	PARTLY ²
Turn Lane Warrants	YES	YES
Limits on Driveways	YES	PARTLY ²
Outparcel Regulations	NO	YES
Flag Lot Restrictions	PARTLY ³	YES (prohibited)
Corner Clearance	YES	YES
Minimum Lot Frontage	PARTLY	YES
Lot Width to Depth	NO	NO
Retrofit Requirements	NO	PARTLY ⁵

Source: R. Frey, K. Williams, and I. Nikitopoulos, "Accomplishing Access Management on the FHHS: The US 27 Corridor in Ocala/Marion County." Center for Urban Transportation Research, November 2002.

¹ Refers to FDOT requirements

² Only applies to shopping centers or large single retail store developments

³ Addressed in the Comprehensive Plan, but not in the Land Development Regulations.

⁴ Based on functional class as outlined in City of Ocala Comprehensive Plan.

⁵ Nonconforming driveways or curb cuts must be retrofitted on property being platted, rezoned, developed or redeveloped as a shopping center or large single retail store development

3.3.3 Interview Knowledgeable Agency Staff

The review of local government plans and regulations does not provide a complete view of current practice. Interviews with local government staff are also needed. Local development permitting officials and transportation engineers may provide detailed information about current practices not addressed in, or that diverge from, the criteria in the land development code. Local staff can also indicate corridor specific problems, such as an increase in lot split activity, that may not be apparent from a review of documents. They may also point the analyst to sector plans, ordinances or policies under development that have a bearing on corridor access management. Identifying these actions early may also allow the analyst an opportunity to provide technical assistance and support in the development of the policies or plans.

Staff to interview generally include planners, public works or traffic engineers, and development services or permitting staff. Depending on the nature of the study area and corridor, staff from the metropolitan planning organization (MPO) and regional planning council (RPC) may also provide helpful information. Local government, MPO, and RPC staffs can often provide further insight into technical practices,

coordination challenges, and access conditions along the corridor. Sample questions for local staff interviews include:

- What challenges do you face in managing access along the corridor (or in general)?
- What are some of the access management practices that seem to be working well?
- What are some of the development trends that impact the corridor?
- Do you have an access permitting process?
- When the Florida Department of Transportation is the permitting authority, how is coordination achieved? Is state and local coordination adequate? How is state and local coordination achieved in roadway design with regard to the placement and design of median openings?
- How is access management handled in development review? Is there a site plan review process in place for review of site access and circulation? Is there adequate internal coordination between agency divisions (e.g. planning, development services, public works) on transportation mitigation and access issues?
- What are your traffic impact assessment procedures and requirements? Are they adequate to address access management?
- Do you address access management in your concurrency mitigation process?
- How do you handle requests for deviation from access spacing standards?
- Are any changes anticipated to comprehensive plans or land development regulations that might impact the selected corridor?
- Are local staff and attorneys familiar with the principles and methods of access management, or would additional training be beneficial?

3.4 CONDUCT A CORRIDOR MANAGEMENT WORKSHOP

Many local governments benefit from and appreciate technical assistance on corridor management issues. In addition to the corridor management assessment, an effective way to deliver that assistance is by conducting a training workshop on corridor management techniques. After presenting information on corridor access management best practices, the results of the assessment could be provided to participants in the matrix format. *NOTE: It is also helpful to conduct a short presentation on the highlights of the analysis and recommendations for local elected officials or the MPO Board.*

The workshop participants could be engaged in a group activity aimed at developing a conceptual corridor management plan. This plan could form the basis for updating local government comprehensive plans and land development regulations to advance corridor management objectives. Strategies could also be developed for improved state and local coordination in access management, where needed. The results of the workshop should be summarized and incorporated into the final assessment report.

Contact Gary Sokolow at the FDOT System Planning Office, (850) 414-4912, e-mail gary.sokolow@dot.state.fl.us to obtain further information on how to conduct a workshop or for sample workshop materials and exercises.

3.5 SUMMARIZE CURRENT CORRIDOR MANAGEMENT PRACTICES

The agency interviews and review of plans, policies and regulations will provide insight into the state of the practice in corridor management within each jurisdiction. The next step is to document these findings. A suggested approach is to organize the findings for each local government as follows:

I. ____ County

A. Comprehensive Plan (review of key policies and planning or development trends that relate to the corridor; this section could also include special planning studies or subarea plans that relate to the corridor)

B. Land Development and Subdivision Regulations (review of land use and subdivision regulations that relate to corridor management, as identified in the matrix)

C. Access Management Regulations (review of regulations and design standards specific to access management and any special administrative procedures related to requests for deviation from access management standards)

D. Right-of-Way Regulations (review of regulations that implement roadway networks and preserve future right-of-way for planned improvements)

E. General Observations (briefly note key observations on obvious strengths and shortcomings of the local policies, regulations and implementation practices with regard to corridor management)

II. City of ____

[Follow the basic format above for documenting the policies of each jurisdiction on the corridor]

III. Summary and Conclusions

(summarize the key issues in current practice that have impacted the ability to manage corridor development and access to establish the basis for recommended actions in the conceptual corridor management plan. Include the comparative matrix.)

IV. Conceptual Corridor Management Plan

(identify recommended implementation actions, including new or expanded policies, regulations, and procedures to address shortcomings of local programs and issues in current practice.)

V. Appendices (such as workshop comments and recommendations, sample intergovernmental agreements, draft ordinances, etc.)

4. DEVELOP A CONCEPTUAL PLAN

The current practice review and summary in Section 3 will culminate in a conceptual plan for managing corridor development in accordance with access management standards and physical planning concepts for a particular highway corridor. This plan is an interim step prior to local government adoption of the actual implementing ordinance. Examples of conceptual corridor management plans prepared for Florida local governments appear in Exhibits C and D. They provide clear and concise objectives for updating existing policies and regulations to accomplish access management and right-of-way preservation

objectives along a state highway corridor. This section includes information on the tools and techniques available to local governments that can form the basis for the conceptual plan.

4.1 EXPAND CORRIDOR MANAGEMENT POLICIES

Local governments may adopt a variety of corridor management policies in their comprehensive plan. The review of current practices in Section 3 will have identified these policies and provide a general sense of their adequacy. As part of the conceptual corridor management plan, it may be important for a local government to expand its adopted goals, objectives and policies. Below is a sampling of policy statements that may be helpful in this effort.

Sample Access Management Policies:

“Direct access to major roadways shall be limited to preserve the safety, efficiency, and character of regionally important transportation routes. Individual property access shall not be provided to arterial roadways where alternative access is available.”

“Accessibility of land development along major arterial roadways shall be preserved through the use of parallel roads, side streets, and cross access easements connecting adjacent developments.”

“Properties under the same ownership, consolidated for development, or part of phased development plans shall be considered one property for the purposes of access control. Access points to such developments shall be the minimum necessary to provide reasonable access and not the maximum available for that property frontage.”

“Service roads shall be used for access to commercial development in the area surrounding new freeway interchanges and shall be separated from interchange ramps at a distance that conforms with the applicable FDOT or local access spacing standards, in order to preserve safe and efficient traffic operations in the interchange area. Circulation systems for interchange area development shall be continuous and designed to support both vehicular and pedestrian mobility.”

“Signalized access points on arterial and major collector roadways shall not be approved where they substantially disrupt the ability to synchronize signals and maintain continuous traffic progression.”

“Commercial activity centers with unified access and circulation systems shall be strongly encouraged as an alternative to strip development with individual driveways. Small, stand alone commercial uses shall be required to locate within shopping centers.”

“New residential subdivisions shall include an internal street layout that connects to the streets of surrounding developments to accommodate travel demand between adjacent neighborhoods without the need to use the major thoroughfare system.”

“No new lot or parcel shall be platted or created along arterial or collector roadways that would result in connection spacing that does not comply with the applicable local or FDOT connection spacing standard.”

Although these policy statements are drafted to apply system wide, consider whether the community would benefit from a corridor-specific policy as well. For example, the Tallahassee-Leon County Comprehensive Plan includes the following policy regarding its primary beltway, Capital Circle:

“Policy 1.12.1: [T] (Revised Effective 7/1/04)

As Capital Circle is converted to a high capacity, multi-lane arterial, future access-points shall be limited so that the improved roadway will function more efficiently and safely for its intended purpose. In order to protect traffic capacity of the improved roadway and to assure public safety, the following policies will apply:

- A. No new parcel shall be platted nor created through subdivision that results in a parcel with sole access to Capital Circle. Consolidation of two or more parcels that currently have access to Capital Circle into a parcel with a single access to Capital Circle shall be permitted;
- B. New development abutting Capital Circle shall contribute to the development of a supporting system of local or collector roads, service roads, and/or shared access systems (e.g. joint use driveways), as an alternative to individual driveway access.
- C. Where individual driveways must be provided to preserve reasonable access to a development site, applicants shall enter an agreement to cooperate in any future project to consolidate access points or to share access with abutting properties as opportunities arise.
- D. The City and County shall work with FDOT to upgrade the access classification to AC 3 on segments of Capital Circle that are planned for improvement that are currently classified as AC 5.”

Sample Right-of-Way Policies

“The County shall require conveyance of roadway, intersection and interchange rights-of-way consistent with the adopted Thoroughfare Right-of-Way Identification Map when there is a rational nexus between the required dedication of land, the needs of the community, and the impacts of the transportation network due to the development.” (Palm Beach County Comprehensive Plan Policy 1.4-d.)

“All proposed development plans on designated future transportation corridors shall be reviewed for consistency with the Future Right-of-Way Needs Map, the Long Range Transportation Plan, and any specific alignment or engineering studies and shall be consistent with identified right-of-way needs for designated future transportation corridors as a condition of development approval. (Tallahassee-Leon County Comprehensive Plan, Transportation Element, Policy 1.3.3A: [T])”

4.2 UPDATE LAND DEVELOPMENT AND SUBDIVISION REGULATIONS

A comprehensive local access management ordinance would include most, if not all, of the following regulatory components:

- A statement that access connections to the state highway system must comply with FDOT access spacing standards;
- Access spacing standards for locally-maintained thoroughfares;
- Restrictions on lot splits and reverse frontage requirements for residential subdivision lots on arterial roadways;
- Requirements for joint and cross access, driveway consolidation, interparcel connections, and unified access and circulation plans (including regulations for shopping center outparcels);
- Policies and guidelines relative to driveway location and design, including driveway radius/flare, throat length and width, corner clearance, and sight distance considerations;

- Policies and guidelines relative to nontraversable medians and median opening spacing standards and review procedures, where applicable;
- Criteria for separating signalized and unsignalized access points from the ramps leading onto freeway interchanges;
- Traffic impact assessment requirements and procedures that provide for mitigation where needed in the context of a development proposal;
- Redevelopment or “change in use” criteria for bringing existing situations into conformance when there is a change in use;
- Special requirements for older developed areas or nonconforming situations.

Local governments that have many of these regulations already in place, may simply need to “fill in the gaps” or strengthen the requirements to better manage the corridor. For example, if cross access is simply *encouraged* in the code, the community could be advised to update the regulation to *require* cross access in specific situations. An option might be to require all commercial development on arterial roadways to provide for parking lot cross access to adjacent commercial uses. Still another option is to require cross access only for commercial sites on the specific corridor under evaluation. Below is specific policy guidance on addressing some of the key land development and access management issues.

4.2.1 Controlling Lot Splits

Minor land division activity along major roadways will need to be managed so it doesn’t preclude opportunities for alternative access along the corridor. Local governments can enact regulations and review procedures for minor land divisions and alternative access. A streamlined review process for lot splits and other minor subdivision activity helps assure that lots have appropriate access, without placing an unnecessary review burden on the property owner.

In addition, local governments can prevent many of the lot split problems identified in Figure 1 by enacting basic changes to common development requirements. One option is to increase the minimum lot frontage requirement on major transportation routes. A variation of this technique is to tie minimum lot frontage to roadway access spacing standards. Property owners could then be allowed to further subdivide the parcel into smaller frontages, but only where each lot is served by alternative access (e.g. a local street, cross access easement, or service road). Below is one example of this type of regulation:

Section XX: New lots or parcels on arterial roadways [or name a specific roadway].

- 1) The minimum lot frontage for all newly created lots on arterial roadways (or on a specific corridor) shall not be less than the applicable minimum connection spacing standard. The frontage requirement shall not apply to properties that obtain driveway access only from an interior road.)

All lots and parcels that are proposed on or after the effective date of this ordinance must be reviewed for conformance with this section by the jurisdiction where they are proposed and approved, prior to being recorded in the property records of ____ County.

Citrus County included this simple, yet effective, statement in the implementing ordinance for the US 19 corridor management plan (see Exhibit F):

Lot Splits: No new or additional access rights will be permitted for properties that are created as the result of parcel or lot splits subsequent to the enactment of this Ordinance.

Another important provision common to most subdivision ordinances is a requirement that residential subdivisions on major roads provide access to individual lots from a local street, like this example from Martin County, Florida:

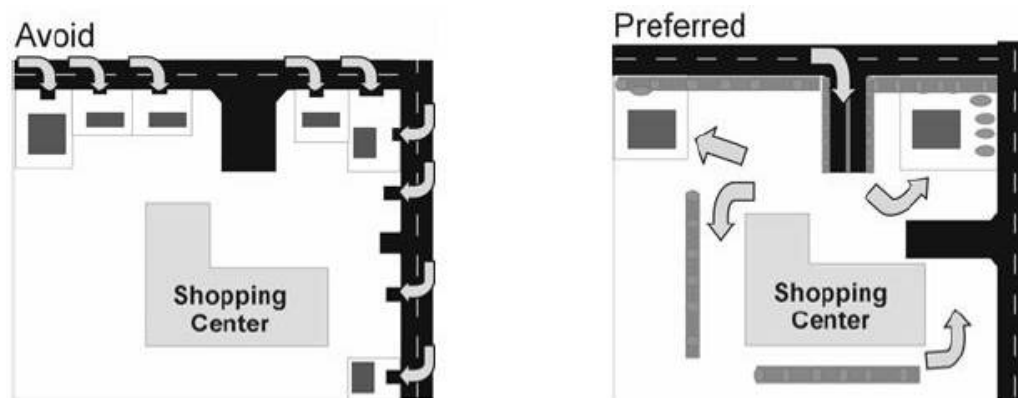
Section X: Access to Homes and Subdivisions.

- 1) When a residential development is proposed that would abut an arterial or major collector roadway, it shall be designed to provide lots abutting the roadway with access from an interior local road or frontage road. Direct driveway access to individual one and two family dwellings from arterial and major collector roadways shall be avoided. All other reasonable access alternatives shall be investigated and judged unacceptable by the County Engineer before direct residential driveway access on an arterial or major collector is permitted.

4.2.2 Managing Outparcel Access

Another typical access issue that may be identified in the analysis relates to shopping center outparcels – lots created along thoroughfare frontage of shopping center sites and leased or sold separately due to their high value location. If treated separately in development review and site planning, these lots could each have individual driveways on a major road, sometimes with no internal connection to the surrounding development (Figure 4).

FIGURE 4. MANAGING OUTPARCEL ACCESS



To avoid this problem, local governments can establish a requirement that properties consolidated for development or those under common ownership, will be treated as one property for the purposes of access review. Regulations should also require outparcels to be tied into the on-site circulation system of the larger shopping center. Below is sample regulatory language to address these issues from *Model Land Development and Subdivision Regulations that Support Access Management*:

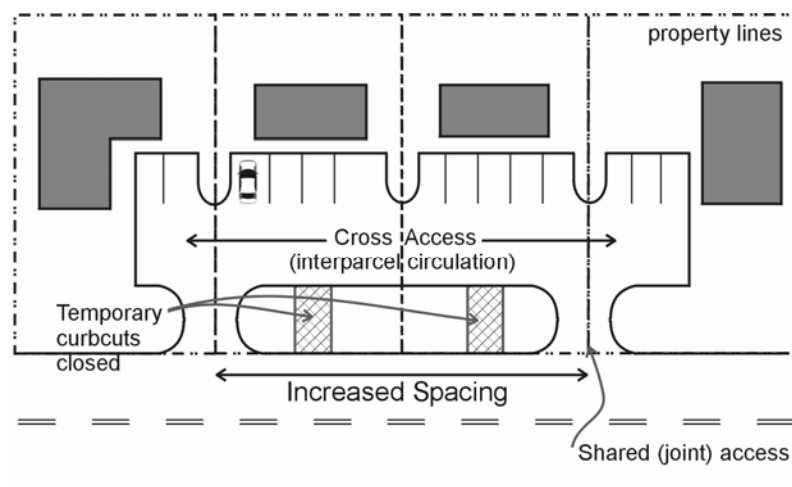
1. In the interest of promoting unified access and circulation systems, development sites under the same ownership or consolidated for the purposes of development and comprised of more than one building site shall not be considered separate properties in relation to the access standards of this code. The number of connections permitted shall be the minimum number necessary to provide reasonable access to these properties, not the maximum available for

- that frontage. All necessary easements, agreements, and stipulations required under (Section 7 of the ordinance) shall be met. This shall also apply to phased development plans. The owner and all lessees within the affected area are responsible for compliance with the requirements of this code and both shall be cited for any violation.
2. All access to outparcels must be internalized using the shared circulation system of the principle development or retail center. Access to outparcels shall be designed to avoid excessive movement across parking aisles and queuing across surrounding parking and driving aisles.
 3. The number of outparcels shall not exceed one per ten acres of site area, with a minimum lineal frontage of 600 feet per outparcel. This frontage requirement may be waived where access is internalized using the shared circulation system of the principle development or retail center. In such cases the right of direct access to the roadway shall be dedicated to the *(local government)* and recorded with the deed.

4.2.3 Joint and Cross Access

Commercial properties under common ownership or consolidated for development can be required to develop a unified access and circulation plan, as noted in Section 4.2.2. However, accomplishing unified access is difficult where properties are under separate ownership. Joint and cross access policies are a method of accomplishing unified access and circulation plans for adjacent commercial properties under separate ownership. These policies are useful for smaller corner properties or areas subdivided into small lots where the lot frontage is too narrow to meet connection spacing standards. The policies promote development of a system of joint use driveways and cross access easements that allow traffic to circulate from one site to another without reentering the abutting public roadway (Figure 5).

FIGURE 5. JOINT AND CROSS ACCESS



Joint and cross access requirements may be administered on a site-by-site basis, as follows. Property owners are required to include the necessary joint and cross access easements on the site plan and sign an agreement stipulating that pre-existing driveways will be closed and eliminated after completion of the joint-use driveway. An agreement is also needed to define the joint maintenance responsibilities of property owners that share the circulation system. All agreements are then recorded with the property

records to improve enforcement. When recorded, these agreements constitute a covenant that runs with the land. Exhibit G includes a sample cross access agreement from Citrus County.

If abutting properties are under different ownership, their cooperation is encouraged but not required. However, the building site under consideration is still subjected to the requirements, which are recorded as a binding agreement prior to issuing a building permit. Abutting properties are brought into compliance as they develop or redevelop. In the meantime, the property owner of the building site under consideration may be permitted a temporary curb cut that is closed upon development of the joint use driveway. Most communities require the temporary driveway be closed at the property owner's expense and some require the property owner to excrow funds for this purpose at the time of development approval. Other options include establishing a municipal fund to assist with driveway closures or incorporating driveway closures and/or reconstruction into a roadway reconstruction project.

Site plans should be reviewed to assure that the site layout, building location and on-site parking and circulation accommodates future cross access easements. A policy to this effect should also be incorporated into land development regulations. It is also advisable to include a provision that allows cross access requirements to be waived at the staff level if natural features make cross access clearly infeasible. For example, Citrus County enacted this regulation, which allows cross access as an alternative to service roads, with a waiver option for natural barriers:

Section 4221(E): Projects proposed on principal and minor arterials and major collectors shall include frontage or service roads, and shall take access from the frontage road rather than the arterial or major collector. This requirement may be met through interconnecting parking lots that abut the arterial or major collector facility. Where natural features cause this requirement to be physically infeasible, alternate designs may be approved.

Property owners should also be required to disclose any contracts with others that may create an impediment to cross access in the planned location. For example, if the site has a billboard, the property owner may have a contract in place that prevents the billboard from being removed. This could become an issue later in the development process, if the billboard interferes with the approved cross access easement. Citrus County, Florida experienced this problem and subsequently adopted the following regulation:

Section 2221(F): When a property is subject to existing development or development rights limitations such as a billboard, easement, or lease which will be affected or impacted by the proposed development, a letter of authorization from the affected party(ies) shall be submitted with the application. (Citrus County Land Development Code)

4.2.4 Corridor Regulations or Overlay Districts

Many local governments have not updated their access management policies, regulations and procedures to reflect contemporary best practices. Some have few or no access management requirements. A corridor management plan can help overcome such deficiencies in the broader regulatory program by establishing a comprehensive approach to regulating a specific corridor. This is accomplished through the development and adoption of special corridor regulations, also known as overlay districts.

Overlay districts add special requirements onto an existing zoning district, while retaining other requirements of the underlying zones. Overlay district regulations may be applied to projects fronting on the primary transportation facility or to an area within a specified distance of the centerline (e.g. 1000 ft.). The latter approach provides opportunities to also address street network development along the highway corridor. Standards may address a variety of issues, such as: right-of-way preservation, joint and cross access, limitations on new driveways and lot splits, driveway spacing standards, higher minimum lot

frontages, service roads and/or street network development, throat length requirements, concurrency mitigation, special impact fees, and so on.

An overlay strategy for emerging commercial corridors that still have relatively large parcel sizes is to restrict the permitted number of future connections to one per existing lot or parcel. Future land division could occur, but each newly created lot would need to obtain access via the connection permitted by the ordinance. Property owners would be obliged to provide a supporting street system, share driveways, use service roads, and/or interconnect adjacent properties to maintain accessibility. See *Model Land Development and Subdivision Regulations that Support Access Management* for further information on this technique. The above overlay strategy is limited, however, in that it does not identify where streets should be provided. It could be supplemented, therefore, by a street network plan for the corridor as discussed in Section 4.3.

Overlay districts are a versatile method of managing access along high priority corridors because they allow standards to be tailored to the needs and circumstances of a particular corridor. They are particularly popular in rural areas or smaller cities that have one primary highway corridor. Levy County, for example, developed an access management overlay district for the US Highway 19 corridor - which serves as the primary commercial corridor for this rural Florida County. The Conceptual Corridor Management Plan for Levy County, which resulted in County adoption of the overlay ordinance, appears in Exhibit C. Even for larger or more urbanized areas, focusing on a specific corridor can be more politically acceptable and less complex than updating an entire regulatory program. Success in managing one corridor can also lay the political groundwork for extending corridor management regulations to other thoroughfares in the future.

4.2.5 Interchange Area Access Management Plans

If the corridor contains a freeway interchange, then the corridor management analysis and conceptual plan would also address interchange policies and regulations. An overall goal is to avoid access connections, median openings, and signalized intersections in the vicinity of interchange ramps. Toward that end, the analysis of local practices and policies would focus on accomplishing the following local planning objectives:

1. Discourage creation of shallow lots and narrow frontages with no alternative access. Preserve adequate parcel depth and width so development sites can accommodate unified access and circulation systems.
2. Discourage development and land use proposals that would result in driveways and intersections in the vicinity of ramp entrances and terminals.
3. Provide access to development from service roads or local streets and require new development to extend street networks to serve interior tracts. Connect interchange area service or local roads with more than one surrounding roadway to enhance accessibility to the surrounding neighborhood.
4. Provide for interparcel connections and unified pedestrian circulation systems between hotels, restaurants and other related uses.
5. Prepare a land use and access management plan for existing and new interchange areas and adopt the plan concurrent with the provision of a new interchange.
6. Work with FDOT and collaborate where possible on the acquisition of additional limited access right-of-way on interchange cross roads to supplement access management plans and policies.

FIGURE 6. INTERCHANGE AREA ACCESS CONCEPTS

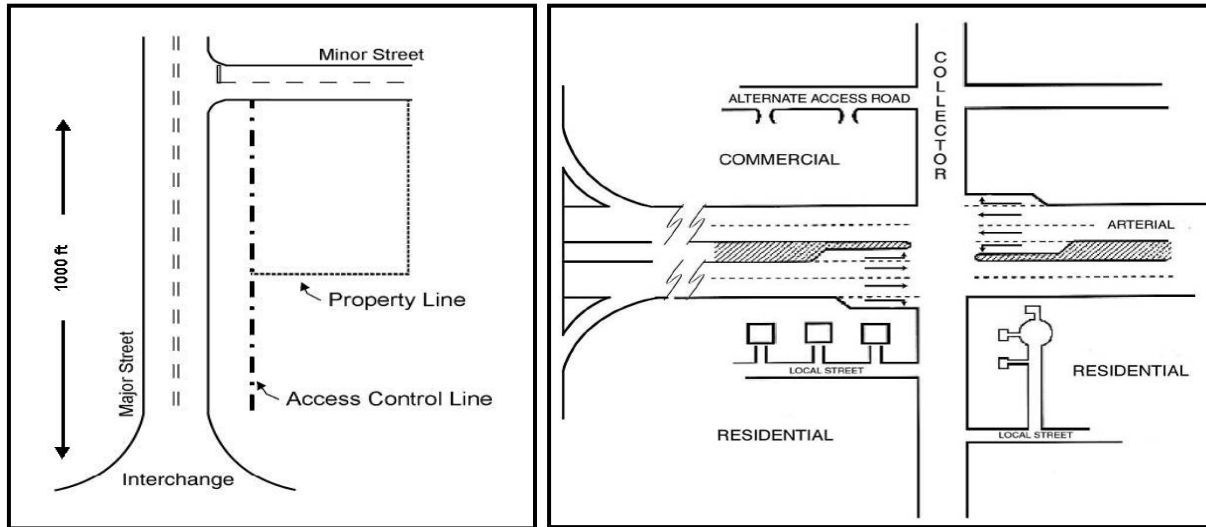


Figure 6 demonstrates various methods to avoid or reduce access connections in the interchange area. The access control line in the figure to the left could be achieved through acquisition of access rights. The figure to the right shows different access arrangements that allow development around the interchange while separating access from the interchange ramps.

An interchange overlay district or access management plan and ordinance could be developed to address the special needs of the interchange area. Such a plan could regulate the area extending $\frac{1}{2}$ mile along the crossroads from the end of the ramp tapers or up to the first signalized intersection. Desirable location criteria for signalized intersections are $\frac{1}{2}$ mile from ramps or no less than $\frac{1}{4}$ mile where this is not feasible. Suggested minimum connection spacing is 660 feet from the ramp taper, with at least $\frac{1}{4}$ mile from the egress ramp for the first full median opening. Local access roads would also be required for property access. Minimum lot frontage for properties abutting the crossroad could be set at 660 feet, unless the resulting lots obtain access from an interior road.

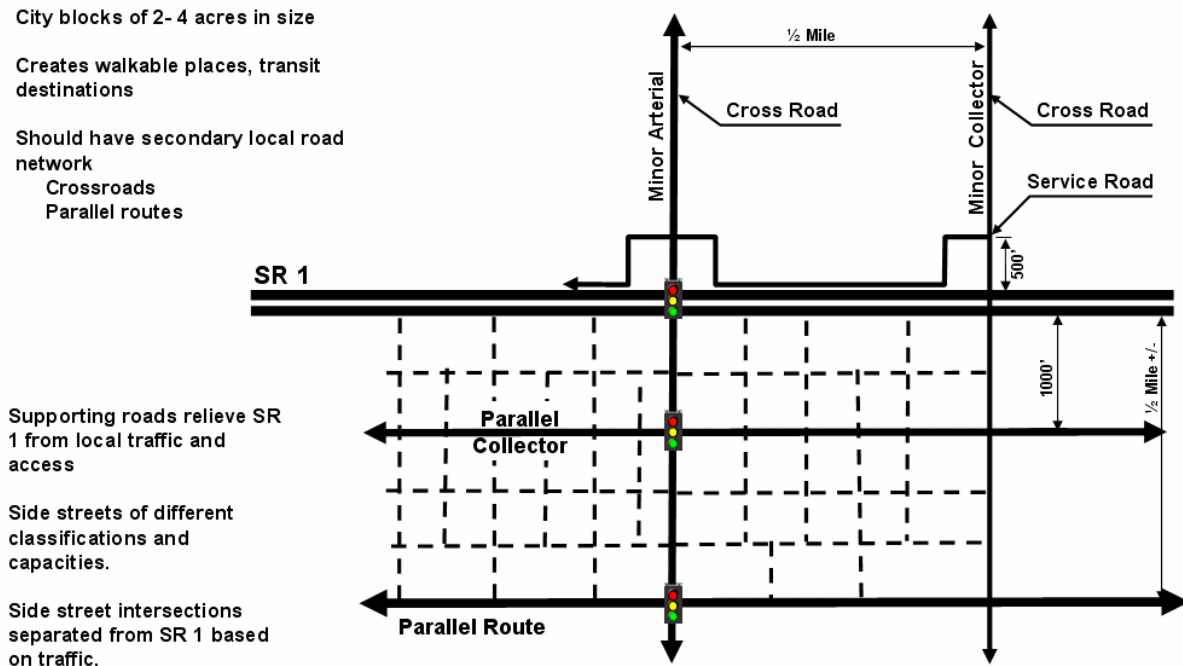
4.3 ADVANCE SUPPORTING STREET NETWORKS

Street networks are most readily achieved at an early stage when land is being subdivided or consolidated for development. Subdivision regulations could require platted streets to be extended to the property line to connect to adjacent undeveloped parcels, and require each applicant to continue or extend surrounding streets. Where service roads are planned, developers could be required to set aside the necessary right-of-way as a condition of development approval, and to construct the service road or provide the necessary financial assurances. If necessary, temporary access may be allowed to the major road until adjacent properties develop and the service road is complete, at which time the temporary driveways would need to be closed – usually at the developer's expense.

Corridor management plans can be used to advance street network development along a major highway corridor, in a coordinated, rather than incremental, fashion. Existing local street systems can provide an initial framework for a corridor access management plan. Where they are not adequate, then the plan could identify preferred future locations. Side streets may be laid out in a general grid pattern or branch out to accommodate terrain or other natural features. A system of parallel roads or service roads could run behind corridor properties with side streets intersecting the arterial at reasonable spacing intervals. It

is best if the street network can be expanded and connected, or a service road can be placed at the rear of the property. Frontage roads often connect too close to an intersection, creating new access problems. Where frontage roads are needed to accommodate small commercial sites, they should connect to the side street an appropriate distance from the primary highway (e.g. 500 feet). These various street network concepts for corridor management are illustrated in Figure 7.

FIGURE 7. STREET NETWORK CORRIDOR MANAGEMENT CONCEPTS



Ideally, major arterial roadways would not accommodate low volume, individual driveways. Instead, minor arterial and collector roadways could be planned to intersect the arterial roadways at regular intervals to coordinate with desired spacing of median openings and signals. Unsignalized local streets or high volume access points could connect to the arterial at intervals that conform with connection spacing standards. Commercial driveways could be primarily directed onto local streets or service roads and collector streets. The network could be implemented through a combination of developer contributions and capital improvement programming, as discussed further in Section 4.6.

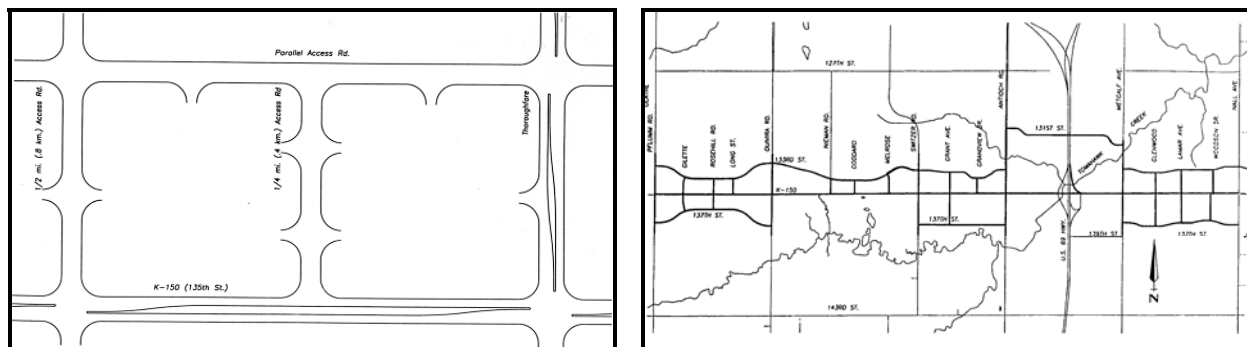
Benefits of an adequate supporting street system include improved accessibility of corridor businesses, more compact development patterns, and reduced need for individual driveway access to the principal roadway. Local streets provide alternative routes for short local trips, which reduces traffic congestion on the arterial. And street networks along major highways allow residents to get to businesses from the neighborhood and circulate between businesses without having to re-enter a busy, high speed highway.

4.3.1 Examples of Street Network Plans and Regulations

City of Overland Park, Kansas

The City of Overland Park, Kansas and two neighboring cities adopted an access management plan for the 135th Street Corridor in anticipation of growth emanating from the Kansas City metropolitan area. The plan provides for a divided multilane highway with median breaks at half-mile intervals, right-turn only access at quarter mile points, and policies on driveway spacing. A system of parallel access roads was planned to help offset demand on the major roadway corridor and to provide alternative access for higher intensity development (see Figure 8).

FIGURE 8. 135TH ST. ACCESS MANAGEMENT PLAN, OVERLAND PARK, KANSAS



The plan was established when the corridor was largely undeveloped, and the City enacted a moratorium on all new development proposals within the study area during the two years it took to complete the study. Now more than ten years later, the corridor has experienced substantial residential and commercial development, including an upscale regional shopping mall and the 200-acre Sprint “campus,” accommodating over 14,000 employees. The plan was implemented through a combination of right-of-way dedication requirements, excise fees (Overland Park), impact fees and credits (neighboring cities), and local capital improvement programming.

Fort Collins, Colorado

Fort Collins, Colorado promotes a supporting street network on arterials through street spacing and connectivity requirements in its plan and land development code. The requirements are implemented through the development review process and applicants are required to submit an access management plan that advances the standards. The code ties street spacing with access spacing criteria, as follows:

Spacing of Full Movement Collector and Local Street Intersection With Arterial Streets.

Potentially signalized, full-movement intersections of collector or local streets with arterial streets shall be provided at least every one thousand three hundred and twenty (1,320) feet or one-quarter (¼) mile along arterial streets, unless rendered infeasible due to unusual topographic features, existing development, or a natural area or feature. State Highway Access Control Code or specific access control plan adopted according to that code shall determine the location of collector or local street intersections with state highways [Section 3.6.3 (C)].

Spacing of Limited Movement Collector or Local Street Intersections with Arterial Streets.

Additional non-signalized, potentially limited movement, collector or local street intersections with arterial streets shall be spaced at intervals not to exceed six hundred and sixty (660) feet between full movement collector or local street intersections, unless rendered infeasible due to unusual topographic features, existing development, or a natural area or feature [Section 3.6.3 (D)].

Model Street Network Policies and Regulations for Multimodal Districts

A planning and regulatory model for multimodal transportation districts (MMTDs) in Florida, applies concepts similar to those of Fort Collins. (See Model Regulations and Plan Amendments for Multimodal Transportation Districts, National Center for Transit Research/Center for Urban Transportation Research, 2004.) The model is aimed at achieving a more walkable, transit friendly environment, but has the added benefit of improving street networks and connectivity through the following provisions:

“Policy 8: Street Network and Connectivity. MMTDs shall provide a dense, interconnected network of local and collector streets that supports walking, bicycling and transit use, while avoiding excessive through traffic in residential neighborhoods, in accordance with the following:

- a. The street network shall be comprised of a system of interconnected and direct routes with a connectivity index of 50 or more polygons per square mile as measured in the FDOT *Multimodal Transportation Districts and Multimodal Areawide Quality of Service Handbook*.
- b. For MMTDs with a street connectivity index below 50, the missing links in the street network shall be identified and eliminated where feasible through the development and capital improvement process.
- c. Each MMTD shall be subject to a maximum block (length or perimeter) requirement to advance connectivity as development and redevelopment occurs.
- d. Connections of new local and collector streets and driveways with arterial streets shall conform to adopted access spacing intervals of the agency with jurisdiction.
- e. The local street circulation pattern shall maximize access to individual lots and activity center destinations (e.g. schools, commercial areas, parks). At the same time, the circulation pattern shall discourage cut-through traffic in residential areas through designs such as curving roads, jogs, T-intersections, roundabouts, gateway treatments, and traffic calming techniques (e.g. chicanes, speed tables, raised intersections, on-street parking, etc).”

These plan policies and performance criteria for MMTDs are implemented through the following model regulations. Although these policies and regulations are designed for application in multimodal transportation districts, as defined in Florida law, they could be adapted for use by any community. Communities could apply such policies to reinforce grid street systems in urban core or main street environments, or to assure adequate supporting street networks in newly developing areas. These strategies reinforce alternative modes of transportation, while helping to reduce traffic conflicts and congestion on major roadways.

3.1 General Requirements

1. The street network shall be designed to promote the overall connectivity of the system while avoiding excessive through-traffic in residential areas by including:
 - a. Multiple direct multi-modal connections to and between local destinations such as parks, schools, and shopping;

- b. Inter-connections to multimodal transportation facilities and services within and outside the boundaries of the MMTD, including bus services, regional rail service, regional greenway and trail systems, the FIHS, and the regional aviation facilities;
 - c. Modified grid systems, T-intersections, roadway jogs, and other appropriate traffic calming measures as provided in *[Section 4. Traffic Calming]* to discourage the use of local streets for cut-through traffic; and
 - d. Additions or enhancements to improve the street network connectivity index as provided in *[Policy 8 of the Model Comprehensive Plan Amendments]*.
2. All development plans shall contribute to developing and/or enhancing a street system that will allow access to and from the proposed development, as well as access to all existing and future development within a ¼ mile radius of the proposed development, via at least three arterial or major collector streets upon development of remaining parcels within the ¼ mile radius.

3.2 Street Network Design

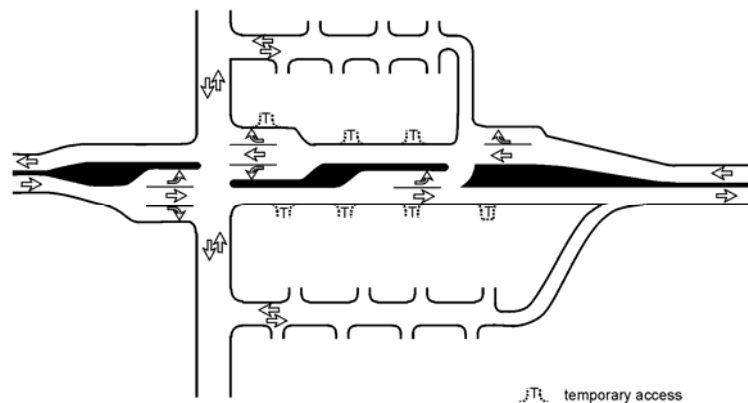
1. All development plans shall incorporate and continue all sub-arterial streets stubbed to the boundary of the development plan by previously approved development plans or existing development. Developers required to extend collector roads may be eligible for impact fee credits where such extension is not reasonably related to the impacts of the development. The requirements of this subsection do not apply if it is demonstrated that a connection cannot be made because of the existence of one or more of the following conditions:
 - a. Physical conditions preclude development of the connecting street;
 - b. Buildings or other existing development on adjacent lands, including previously subdivided but vacant lots or parcels, physically preclude a connection now or in the future, considering the potential for redevelopment.
2. The street network within development plans shall provide for future public street connections to adjacent developable or redevelopable parcels, and shall include block lengths not in excess of 660 feet, except where additional spacing is required in conformance with FDOT or [local government] access management standards and unless the developer demonstrates that a block length must be greater due to the existence of one or more of the following conditions:
 - a. Physical conditions (e.g. topography), buildings or other existing development on adjacent lands physically preclude a block length 660 feet or less; or
 - b. An existing public street terminating at the boundary of the development site, has a block length exceeding 660 feet, or is situated such that the extension of the street(s) into the development site would create a block length exceeding 660 feet. In such cases, every effort shall be made to accomplish reasonable block lengths to maintain walkability.
3. Proposed office and commercial development plans for sites abutting an arterial or major collector street must include internal vehicle connections from the subject development site to each adjacent site, where applicable. Exceptions may be provided where abutting uses are clearly incompatible or where physical conditions or existing development on adjacent sites precludes such connection now or in the future considering the potential for redevelopment. Development plans shall include joint use driveways with adjacent sites wherever feasible.

4.3.2 Service Roads

Service roads are local or collector roads that generally provide alternative access to small commercial tracts along a major roadway. Frontage roads are a type of service road that parallels an arterial roadway or freeway between the roadway right-of-way and the front building setback line. Frontage roads can work well for light office or single family residential developments, where they begin and end between major road intersections. However, continuous frontage roads can lead to crashes and operational problems if they connect too close to a major roadway intersection. Therefore, it's a good idea to provide buildable sites between the service road and the major road right-of-way and move the service road to the rear of individual sites (See Figure 9). Another way to reduce intersection conflicts is through the use of one-way, rather than two-way, frontage roads.

Some local governments have successfully implemented service roads on along the state highway system through ordinances. Hernando County, Florida, for example, adopted a frontage road ordinance in 1986 (Ordinance 86-8), due to concerns about rapid development and future traffic congestion on US 19. The ordinance applies to US 19 and several other major roads within the county, and requires each developer of property adjacent to major arterial highways to provide for the funding and construction of frontage roads upon demonstration of need and demand by the County.

FIGURE 9. SAMPLE SERVICE ROAD CONFIGURATION



Although the Hernando County ordinance uses the term “frontage roads”, the roads may be built to the front of a site, the rear, or in a zigzag configuration. The ‘developer’ is defined as “the person or entity responsible for increasing the traffic demand upon the arterial system by either building a new building, expanding the capacity of an existing building, changing of the approved use, or subdividing real property to create additional building lots.” Development is said to occur when the daily trip generation of the site increases by more than ten trips per day determined using the Institute of Transportation Engineers (ITE) Trip Generation Manual.

The core provisions of the frontage road ordinance require developers to provide funds to the County, who will construct the frontage road at their discretion. Any driveway permits directly connecting to the arterial are considered temporary and will be revoked when the frontage road is constructed. These key provisions are provided below:

“General Requirements. Developers of properties adjacent to the major arterial highway grid must provide at the developer's expense a frontage road from property line to property line parallel to the arterial highway upon demonstration of need and demand by the county.

The frontage road is to be designed to county designated specifications. The developer shall furnish to the county sufficient funds for the engineering and construction of the frontage road across the property when the county indicates that sufficient length is available to construct a link in the frontage road system.

All driveway cuts issued to developers of properties adjacent to arterial highways shall be considered temporary and subject to removal when the frontage road link is constructed across the property.”

Hernando County also added the following objective and policies to the local comprehensive plan, to address a goal for maintaining adequate transportation capacity to accommodate anticipated growth:

“Objective 2.04D: Fully implement a fully integrated frontage road system in the urban sections of the Florida Intrastate Highway System (FIHS) Arterial Network.

Policy 2.04D(1): Continue to require new development adjacent to state arterials to comply with the County’s Frontage Road Ordinance.

Policy 2.04D(2): Provide for the completion of missing links in the frontage road network by incorporating these projects into the Short and Long Range Elements of the MPO’s cost affordable Long Range Transportation Plan.”

The frontage road ordinance is working well and the successful applications have reduced both the frequency and the effectiveness of developer opposition. According to staff, frontage roads are becoming “a mindset” and developers sometimes even provide them on non-regulated roadways. Yet funding remains an issue in the County. No funds have been earmarked through the MPO process to acquire additional right-of-way, build gaps in frontage roads, or to provide enhancements like turn lanes or sidewalks where necessary. Another issue is the lack of a specific frontage road plan or map, which staff believes would help to guide development. Also, the ordinance has not been updated to reflect the importance of separating connections at intersections and designing entrances with adequate throat depth.

Encouraged by the success of the Hernando County frontage road ordinance, the small city of Brooksville adopted a similar ordinance in June of 2003. Brooksville, which is the Hernando County seat, enacted the following provisions to address identified shortcomings of the Hernando County ordinance:

“If the City does not determine need within ten (10) years from the date the Certificate of Occupancy is issued for the current use, the developer may be exempted from this requirement by the City Council until such time as when the impact from additional development, redevelopment or change of use on the site occurs.”

“The frontage road requirement may also be applied to collector roads for a distance of up to 600 feet from their intersection with an arterial highway, which will provide for greater safety by effectively looping frontage road traffic away from the intersection of the collector road and the arterial highway system.”

This section allows the City to impose the requirement to reserve an easement for the frontage road and require the necessary financial assurances, but to later waive the requirement should it prove unnecessary. The City of Brooksville’s Land Use/Zoning Regulations were also amended to further clarify when the City would consider exceptions, as follows:

“To meet frontage road requirements, all properties located adjacent to arterial highways are required to meet a minimum seventy-five (75) foot building setback from the arterial highway. The administrative official may provide exceptions from this requirement with the approval of the

City Manager and enforce the standard zoning district front yard setback from the arterial roadway in the following circumstances:

- A hardship exists in the redevelopment of an existing developed parcel due to the inadequate depth of the property and/or the continued use of an existing structure.
- The developer has provided for a reverse frontage road along the rear portion of their property. Any such exception may be subject to additional conditions.
- In the redevelopment of existing developed property adjacent to an arterial highway, frontage road standards may be modified to provide for joint access driveways that provide for travel from one property to the next without having to access the arterial highway.
- Frontage road standards and setbacks will not be applied to property located within the Central Business District as delineated in the City's adopted Comprehensive Plan".

The City is taking a proactive role in working with property owners and the local economic development department to implement a frontage road on SR 50, using right-of-way donations, economic development funds, and Community Development Block Grant funds. The City was also successful in obtaining State money for the project through the Transportation Outreach Program (TOPS), a Florida Department of Transportation program that has since been discontinued.

4.4 REFINE ADMINISTRATIVE PROCEDURES

An important element of any corridor access management program is the development review and permitting process. The access permit application for a large development is commonly required to include a detailed site plan, a traffic impact study, and may also involve off-site mitigation. The permit application for a small development may simply indicate location of the property, existing zoning, and ownership, together with a site plan of the site. Site plans for smaller developments should depict the location of existing and proposed structures, existing and proposed access drives, on-site circulation and parking, cross access easements, distance to adjacent access connections, and a statement of need for the proposed access connection.

Flexibility is important when administering access spacing requirements. Clear procedures will be needed for considering deviations from access management standards, to promote fair and consistent decisions. An effective approach is to establish a threshold for minor and major deviations from standards, where minor deviations may be decided by administrative staff, and major deviations require more extensive review and justification. This streamlines the permit process for minor deviations, while discouraging frivolous requests for major deviations through a more extensive review process.

At the local level, major deviation requests could be reviewed by upper level staff from key divisions (engineering, planning, zoning, etc.) or by the local development review committee. Local recommendations could be provided to the FDOT District permit engineer, who makes a recommendation of approval, approval with conditions, or denial to the FDOT District Access Management Committee. The District Access Management Committee has final decision-making authority on major deviations from access management standards on the state highway system. Applicants can appeal this decision to an administrative hearing officer.

A fee schedule is typically established to cover local administrative costs, with higher fees for larger or more complex developments. Fees charged by local agencies for access review range from \$50 for a simple application to several hundred or several thousand dollars for a complex application. Further

information on access permitting practices, including typical fees, is provided in *NCHRP Synthesis 304: Driveway Regulation Practices* (TRB 2002).

4.5 ESTABLISH A COORDINATION PROCESS

Both formal and informal coordination between affected government agencies is important to an effective corridor access management plan. Through coordination, each agency will verify their level of commitment to implementing the plan and agree upon their respective roles and responsibilities. This can best be accomplished through official adoption of the plan and an intergovernmental agreement that specifies each agency's role and responsibilities in carrying out the plan. Ideally, the agreement will address financial obligations and procedures for coordinated review of access requests and permit decisions.

Intergovernmental coordination may also involve interim steps, such as resolutions of support for developing or implementing the corridor management plan or Memoranda of Understanding that identify the desire of involved parties to engage in a course of action. However, resolutions are not legally binding and are subject to change, particularly if the members of the elected body change. Likewise, a Memorandum of Understanding can serve as the basis for developing a formal agreement, but is not legally binding. See Exhibit E for sample cooperative agreements. For further information, see *NCHRP Synthesis 337: Cooperative Agreements for Corridor Management*, Transportation Research Board. Washington, D.C.: National Academy Press, 2004.

Coordination mechanisms could include the development of procedures for joint FDOT/local government review of access requests or deviations from the plan. Adoption of a formal timeline for revisiting the plan by all participating agencies is also helpful in light of the potential for significant changes in corridor conditions. For example, a three-year requirement for revisiting the plan enables participating jurisdictions to address any problems with the plan or its implementation. This can serve as a reminder for local staff to budget for the update and also provides an opportunity to point out the positive results of the plan and to educate newly elected officials and new staff members.

4.6 IDENTIFY FUNDING AND MITIGATION OPTIONS

There are a number of ways that state and local governments can fund access management improvements both on and off the primary roadway. They include:

- Directly paying for the improvements using available and appropriate resources, including federal funds, state funds (e.g. TRIP), local general funds, funds raised through bonding, and other available and appropriate Capital Improvement Program funds;
- Through the development process (concurrency mitigation and proportionate fair share agreements, right-of-way and/or construction services gained through exaction, funds generated through the application of transportation impact fees, etc.); and
- Public/private partnerships in which resources are combined to achieve the desired result.

Some state transportation agencies build access roads or contribute to local road improvements in the context of an adopted corridor management plan. In some cases, a local government may opt to complete undeveloped segments of the road where needed to maintain continuity or as an incentive for private participation. Funding could also be sought through the MPO process in communities served by a metropolitan planning organization. An effective strategy is for state transportation agencies and MPOs to earmark funds for this purpose. Even if the funding amount is small, the availability of grants can be a

significant incentive for local governments to promote street network or service road improvements. Below are some specific funding options in Florida.

Transportation Regional Incentive Program (TRIP): The TRIP provides matching funds for regionally significant facilities (Section 339.2819, F.S.) included in regional transportation plans. To qualify, the facilities must be developed within regional transportation areas established by interlocal agreement (Section 339.155[5], F.S.) and subsequently included in participating local government comprehensive plans. Eligible projects must support transportation facilities that serve national, statewide, or regional functions, be included in the capital improvements element, be consistent with the SIS goals, and have a commitment for local, regional, or private matching funds. Priority will be given to projects that, among other things, provide connectivity to the SIS, support economic development and the movement of goods in rural areas of critical economic concern, and are subject to corridor management regulations.

Tax Options: Potential funding sources available to local governments in Florida include the Local Option Gas Tax, the local Government Infrastructure Surtax, and the Ninth Cent Gas Tax. A local option gas tax of up to six cents per gallon may be levied for transportation expenditures on state or local highway systems with proceeds of the tax to be shared with municipalities. An additional five cents per gallon local option gas tax was adopted by the 1993 Legislature requiring that local governments only use revenues from the tax for transportation expenditures needed to meet the requirements of the capital improvement element of an adopted comprehensive plan.

The Local Government Infrastructure Surtax or Local Option Sales Tax can be levied by county governing bodies at a rate of .5% or 1% and applies to only the first \$5000 in value of all purchases subject to the regular 6 percent sales tax. Tax proceeds can be expended only to plan and construct infrastructure, or to acquire land for public recreation, conservation or for the protection of natural resources.

Transportation Impact Fees: Transportation impact fees are levied to offset the public cost of transportation improvements needed to accommodate the additional demands on transportation facilities by new development. Such fees could be targeted for improvements needed to implement a corridor management plan, including parallel collector roadways and improvements to the primary arterial facility. For example, a special fee could be determined based on the transportation improvements needed to serve development within a defined area, as was done in Kansas to implement the 135th Street corridor access management plan (Section 4.3.1). Impact fee credits could also be provided for developer contributions of land or construction of facilities, thereby reducing the need for funding outlays.

Development Exactions: Local governments may require developers to make certain “site-related” transportation improvements as a condition of development approval. Such improvements may include provision of right-turn lanes, improvements needed to bring existing roads up to current design standards, dedication of easements for parking lot cross access, and dedication of right-of-way for construction of local service roads. In addition to mandatory exactions, local governments may also negotiate with a developer for voluntary infrastructure improvements aimed at overcoming existing deficiencies.

Transportation Concurrency and Proportionate Fair Share Mitigation: Concurrency mitigation and proportionate fair share agreements are another opportunity for implementing corridor management plans through the development process. This strategy could be applied in situations where the primary facility is operating below acceptable level of service standards or where a development would otherwise trigger a concurrency failure. The improvements identified in an adopted corridor management plan could form the basis for concurrency mitigation and proportionate fair share agreements. They could also be implemented in the context of a long term concurrency management system for the corridor.

The required mitigation may be in the form of land for right-of-way, money, construction of an improvement, or some combination. For example, where a corridor management plan calls for parallel reliever roadways or other improvements to the supporting street network, participating local governments could add segments of the parallel roadway system to the capital improvements element of its comprehensive plan and require developer participation in implementing the system through fair share agreements as a condition of development approval.

To qualify for proportionate fair share contributions, the service road or street network segments identified as necessary for mitigation of traffic impacts on the corridor would need to be included in the local 5-year capital improvements element or in the next scheduled update. Fair share contributions toward the access road network could also be deemed adequate (for maintaining a financially feasible CIE) if the contributions and funding sources needed for full mitigation are reasonably anticipated within a 10 year period. Developers would be eligible for impact fee credit for their fair share contributions, provided the access roads were contemplated by the impact fee calculations. Impact fee credits could also be provided for applicants who construct more than their fair share of the network.

Some local governments in Florida have successfully implemented parallel service roads in the context of concurrency mitigation. For example, in Okaloosa County, Florida, staff required developers to consolidate access onto a service road to mitigate traffic impacts on US 98, which was operating below adopted level of service standards. The service road was accomplished through individual development agreements, and the County constructed at least one segment to complete the road. Since it was initiated the road has been extended over 4 miles to form a significant reliever route along US 98 (Figure 10).

FIGURE 10. US 98 PARALLEL SERVICE ROAD



5. ADDITIONAL RESOURCES

This guide has provided a framework for evaluating and updating land development and corridor management practices. For additional specific guidance on effective local government corridor management regulations, plans and overlay districts, see:

1. Committee on Access Management, *Access Management Manual*, Transportation Research Board, Washington, D.C.: National Academy Press, 2003.

2. Kramer, J. and K. Williams, "Accomplishing Access Management on the Florida Intrastate Highway System: US 19 Highway Corridor Experience," *Transportation Research Record No. 1858: Transportation Planning and Analysis 2003*, Transportation Research Board, Washington, D.C., January 2004.
3. Land, L. and K. Williams, "Land Development and Access Management Strategies for Florida Interchange Areas," Center for Urban Transportation Research, March 2000.
http://www.cutr.usf.edu/research/access_m/access_mgmt_pubs.htm
4. *Model Land Development and Subdivision Regulations that Support Access Management for Florida Cities and Counties*, Center for Urban Transportation Research/Florida Department of Transportation, 1994. http://www.cutr.usf.edu/research/access_m/pdf/Land_Regs.pdf

This report provides an excellent overview of the issues in current local government practice as they relate to access management, particularly in the land division and subdivision process. It then sets forth a series of sample regulations modeled after effective local government access management ordinances.
5. Seggerman, K. and K. Williams, "Advancing Multimodal Transportation and Development Through the Planning Process," *Proceedings of the Association of Commuter Transportation 2005 International Conference*.
6. Seggerman, K. and K. Williams, *Effective Strategies for Comprehensive Corridor Management*, Center for Urban Transportation Research, 2004.
7. Williams, K. "Accomplishing Alternative Access on Major Transportation Corridors," *Proceedings of the 84th Annual Meeting of the Transportation Research Board*, Washington D.C., January 2005.
8. Williams K. "Intergovernmental Coordination in Access Management: A Discussion Paper," Center for Urban Transportation Research, June 1998.
9. Williams, K. *NCHRP Synthesis 337: Cooperative Agreements for Corridor Management*, Transportation Research Board. Washington, D.C.: National Academy Press, 2004.
10. Williams, K., *NCHRP Synthesis of Highway Practice 304: Driveway Regulation Practices*, Transportation Research Board, National Academy Press: Washington, DC, 2002.
11. Williams, K., G. Sokolow and M. Guttenplan, *Implementing Multimodal Transportation Districts: Connectivity, Access Management and the FIHS*, Center for Urban Transportation Research, December 2001. http://www.cutr.usf.edu/pdf/MMTD_Regs_Draft.pdf
12. Williams, K. and K. Seggerman, *Model Regulations and Plan Amendments for Multimodal Transportation Districts*, National Center for Transit Research, Center for Urban Transportation Research, 2004.
13. Williams, K. and R. Forrester, *NCHRP Synthesis of Highway Practice 233: Land Development Regulations that Promote Access Management*. Transportation Research Board, Washington, D.C.: National Academy Press, 1996.
14. Williams, K. and R. Frey, "Corridor Preservation Best Practices for Local Governments," *Proceedings of the 83rd Annual Meeting of the Transportation Research Board Compendium of Papers*, Washington D.C., January 2004.
15. Resources posted on the TRB Access Management Committee website:
<http://www.accessmanagement.info>

EXHIBIT A: ACCESS MANAGEMENT ASSESSMENT CHECKLIST

1. Does the local comprehensive plan include goals, objectives, and policies that support access management? ☐ Yes ☐ No ☐ Partly
2. Does the comprehensive plan or major thoroughfare plan classify roadways according to function and level of access control? ☐ Yes ☐ No ☐ Partly
3. Does the local land development code include a section that directly addresses access management? ☐ Yes ☐ No ☐ Partly
4. Do the plan and land development code discourage commercial strip development on major thoroughfares? ☐ Yes ☐ No ☐ Partly
5. Do the plan and code promote activity centers with unified access? ☐ Yes ☐ No ☐ Partly
6. Does the land development code include regulations for driveway spacing, sight distance, and corner clearance? ☐ Yes ☐ No ☐ Partly
7. Does the land development code restrict the number of driveways per lot or parcel on arterials? ☐ Yes ☐ No ☐ Partly
8. Are minimum lot frontage requirements higher along thoroughfares? ☐ Yes ☐ No ☐ Partly
9. Are new developments encouraged or required to provide interparcel Connections (cross access) and joint access? ☐ Yes ☐ No ☐ Partly
10. Are properties under the same ownership or those consolidated for development treated as one property for review of access? ☐ Yes ☐ No ☐ Partly
11. Does the land development code include a review process for minor subdivisions or lot splits? ☐ Yes ☐ No ☐ Partly
12. Does the land development code include restrictions on flag lots? ☐ Yes ☐ No ☐ Partly
13. Does the land development code include standards for lot width-to-depth or otherwise restrict creation of irregularly shaped lots? ☐ Yes ☐ No ☐ Partly
14. Does the land development code address design, construction, and maintenance of private roads? ☐ Yes ☐ No ☐ Partly
15. Do local subdivision regulations require reverse frontage for residential lots along arterials and collectors? ☐ Yes ☐ No ☐ Partly
16. Does the local government encourage or require shared residential access drives for small subdivisions? ☐ Yes ☐ No ☐ Partly
17. Is new development required or encouraged to continue streets or interconnect with the surrounding street system? ☐ Yes ☐ No ☐ Partly
18. Do local driveway design standards address the following:
 - Driveway throat length? ☐ Yes ☐ No ☐ Partly
 - Driveway flare or radius? ☐ Yes ☐ No ☐ Partly
 - Driveway width? ☐ Yes ☐ No ☐ Partly
19. Does the local government have a procedure for coordinating with FDOT on access permitting during the development review process? ☐ Yes ☐ No ☐ Partly

SOURCE: CUTR, Land Development and Access Management Short Course Materials, updated 2007.

EXHIBIT B: SAMPLE CURRENT PRACTICE MATRICES

DETAILED MATRIX EXAMPLES

Technique	City of Newberry	Alachua County	Gilchrist County	City of Trenton
Access Management Policies in Plan	Yes	Yes	Yes	Yes
Activity Center Strategies in Plan	No	Yes	Yes	No
Access Management Section in Code	Yes	Yes	In process	Yes
Access Approval Authority	Land Development Regulation Administrator	County Engineer	Planning Director	Land Development Regulation Administrator
Connection Permit Required	Yes	Yes	Yes	Yes
Limits on Driveways per Site	Yes, varies by distance between "curb breaks"	Up to 2 connections per 660 ft ⁱⁱⁱ	Yes, varies by distance between "curb breaks"	Yes, varies by distance between "curb breaks"
Connection Spacing Standards	References FDOT requirements	Spacing for collectors and arterials; 275' for Class III - Class IV Connections	References FDOT requirements	References FDOT requirements
Corner Clearance	No	150' min. for collectors and arterials	No	No
Continuation of Streets	Planned and Mixed Use Developments; New Subdivisions ⁱⁱ	Required for Activity Centers and TNDs	Yes	Between proposed subdivisions and adjacent properties ⁱⁱ
Corridor Overlays/ Special Districts	No	Oaks Mall; Jonesville	No	No
Driveway Throat Length	No	Yes	No	No
Flag Lot Standards	Yes	No	Yes	No
Outparcel Regulations	No	No	No	No
Minor Subdivision or Lot Split Regulations	Yes, ≤ 3 lots	Yes	Yes, 1 lot	Yes, ≤ 3 lots

Technique	City of Newberry	Alachua County	Gilchrist County	City of Trenton
Interchange Area Access Management	No	No connections on ramp acceleration/ deceleration lanes	No	No
Joint and Cross Access	No	Encouraged	No	No
Lot Width to Depth Ratio	Yes	No	Yes	Yes
PUD Zoning or Planned Development	Yes	Yes	Yes	Yes
Retrofit Requirements	No	Yes ^{iv}	No	No
Reverse Frontage/Internal Access	Yes	No	Yes	Yes
ROW Preservation	Yes, at section lines	Yes	Yes	Yes
Service Roads/Frontage Roads	Partly, marginal access street	Encouraged	Partly, marginal access street	Partly, marginal access street
Street Network/ Connectivity	Planned and Mixed Use Developments; New Subdivisions ⁱⁱ	Yes; Required for Activity Centers and TNDs	Yes	Between proposed subdivisions and adjacent properties; New subdivisions ⁱⁱ
Signal Spacing (Arterials)	No	No	No	No
Deviations from Connection Spacing	Board of Adjustment	Board of Adjustment or Board of County Commissioners	Board of Adjustment	Board of Adjustment

ⁱ Planning and Zoning Board makes recommendations

ⁱⁱ New subdivisions must continue streets and provide stubs to undeveloped land with turnabout

ⁱⁱⁱ Minimum number necessary for use; traffic study required for additional connections

^{iv} Included in Comprehensive Plan Policy 1.1.5(g) - "access management standards shall be incorporated in development plans during redevelopment or development expansion activity."

Technique	Leon County	City of Tallahassee
Access Classification (FDOT)	AC 1 (I-10), 3 and 4	AC 1 (I-10), 3, 4, 5, 6, and 7
Access Classification (Local)	No (Driveway Classes)	Yes (Functional Class)*
Connection Permit Required	Yes	Yes
Connection Permit Fees	Yes	Yes (\$50-\$1000)*
Connection Spacing Standards (Arterials)	Yes (275', commercial/office subdivisions only)	Yes (275', commercial/office subdivisions only) (440'/245')*
Median Opening Spacing (Arterials)	No ("evenly spaced", traffic study required)	Yes (1/2 mi/1/4 mi)*
Signal Spacing (Arterials)	No	Yes (1/2 mi/1/4 mi)*
Corner Clearance	100' or as provided in overlay districts	Access spacing or isolated CC,* or as provided in overlay districts
Service Roads/Frontage Roads	Addresses frontage roads	Addresses frontage roads
Joint Access/Interconnection	Partly	Yes
Driveway Design (Width, Radius/Flare, Throat Length)	Yes	Yes
Turn Lane Warrants	No (may be required)	Yes
Corridor Ac. Mgt. Plans/Overlay Districts	Yes (Capital Parkway Districts, Bradfordville)	Yes (Capital Parkway Districts, Bradfordville)
Outparcel Regulations	Partly	Partly
Limits on Driveways	Up to 2 connections per 660 ft/ 1 per 330 ft.	Up to 2 connections per 660 ft/ 1 per 330 ft.
Interchange Area Access Mgt	No	Yes (no driveway access, one street per 1320 ft. of frontage)
Continuation of Streets	Yes	Yes
Reverse Frontage (Residential)	Yes	Yes
Flag Lot Standards	Yes (prohibited)	Yes (nonresidential/MF prohibited, no more than 2 adj. residential)
Retrofit Requirements	Yes (change in use, roadway reconstruction)	Yes (change in use, roadway reconstruction)
Approval authority	Director of Public Works	City Manager or designee/ Director of Public Works/ City Engineer
Denial/Closure of Access	Serious safety or operational problem	Serious safety or operational problem
Variances	Director of Public Works	City Manager or Designee/Director of Public Works
Appeals	Board of Adjustment and Appeals	Board of Adjustment and Appeals

* Draft Public Works Design Manual only.

SIMPLE MATRIX EXAMPLE

Technique	Levy County	City of Fanning Springs	City of Chiefland
Joint Access	YES	NO	NO
Driveway Design	PARTLY	--	PARTLY
Corridor Overlay	NO	NO	NO
PUD Zoning	YES	PARTLY	YES
Continuation of Streets	YES	YES	YES
Minor Subdivision Regulations	NO	YES	NO
Reverse Frontage	YES	YES	YES
Access Classification (State)	PARTLY*	YES	PARTLY*
Access Classification (Local)	PARTLY*	NO	PARTLY*
Driveway Spacing Standards	PARTLY*	NO	YES
Limits on Driveways	NO	YES	NO
Outparcel Regulations	NO	NO	NO
Flag Lot Standards	NO	NO	NO
Corner Clearance	NO	NO	NO
Minimum Lot Frontage**	YES	YES	PARTLY
Lot Width to Depth	YES	NO	NO
Retrofit Requirements	NO	NO	NO

*: The issue is addressed in the Comprehensive Plan, but not in the Land Development Regulations.

**: In Levy County, minimum lot frontages range between 100 and 300 feet for commercial uses. The minimum lot frontage for all commercial land uses in the City of Fanning Springs is 20 feet. There are no minimum lot frontages for commercial land uses in the City of Chiefland.

EXHIBIT C: CONCEPTUAL ACCESS MANAGEMENT PLAN FOR US 19 (LEVY COUNTY)

“Based upon the assessment of current practice and workshop results, several key issues have emerged that form the basis of a conceptual access management plan for the US 19 corridor. These are summarized below.

1. The City of Fanning Springs, City of Chiefland, and Levy County should cooperatively adopt FDOT access management requirements for US Highway 19 and reinforce these through broad policies and guidelines that support access management on US 19. Some suggested policies and guidelines are as follows:
 - Establish minimum corner clearance requirements for US 19 and crossroad intersections with US 19 that conform with FDOT corner clearance requirements.
 - Establish that new lots may not be created on US 19 unless they meet the access spacing standards.
 - Establish that existing lots unable to meet the access spacing standards for US 19 must obtain access from platted side streets, parallel streets, service roads, joint and cross access, or the provision of easements.
 - Allow temporary access where necessary until such time that alternative access can be obtained. Exceptions should not be granted unless the property owner provides for shared access by easement. Require properties to obtain side street access as an alternative to direct highway access where it is available.
 - Establish that lots in residential subdivisions must obtain access from internal subdivision streets, and shall not be permitted access to US 19.
 - Require properties under the same ownership or those consolidated for development to provide a unified access and circulation plan. Such properties and any outparcels should be required to obtain access from the unified access and circulation system.
 - Establish redevelopment or retrofit requirements for nonconforming access situations. Existing access is allowed to continue, but must be upgraded to the maximum extent feasible in accordance with the access management plan, when there is a change in use, expansion or reconstruction of the site.
 - Reduce reliance on US 19 for access by providing alternatives, including parallel roadways, interparcel connections, and side streets for local circulation.
 - Increase building setbacks outside municipal boundaries to preserve area for open space, landscaped buffers and/or trees, pedestrian ways, and on-site circulation systems along the highway. Increased setbacks help to preserve public safety, maintain development flexibility, and minimize property damage if the highway is widened in the future.
 - Update driveway and intersection design requirements to assure that they provide adequate geometrics for turning vehicles and do not result in traffic conflicts at the entrance. These may be based upon the new requirements currently being prepared by the Florida Department of Transportation.
2. From this plan, the communities should collectively develop standard access management requirements as part of an overlay district for the corridor that can be adopted by each local

jurisdiction and which are consistent with those of the Florida Department of Transportation. The City of Fanning Springs, City of Chiefland, Levy County, and the Florida Department of Transportation should solidify commitment to implementing the access management plan for the US 19 corridor through an intergovernmental agreement. A sample intergovernmental agreement is provided below to assist in this process.

3. Establish a process for coordination of FDOT access permitting with local development permitting through a concurrent state/local review procedure. Each local government and the FDOT should coordinate when reviewing proposed plats and development applications along the US 19 corridor to prevent access problems before they are created and assure conformance with the US 19 access management plan. This process should be formally established through interlocal agreement.
4. Consider establishing a corridor management team made up of representatives of each local government, the FDOT, and other interested parties, such as the Suwannee River Water Management District, the Withalocoochee Regional Planning Council, and selected community leaders. The responsibilities of the team would be to assure continued coordination and commitment in the implementation of the access management plan. Other responsibilities could include scenic byways designation, economic development, or other areas of interest on the corridor.”

EXHIBIT D: CONCEPTUAL ACCESS MANAGEMENT PLAN FOR SR 26 IN ALACHUA AND GILCHRIST COUNTIES

“The assessment of current practice revealed several key access management issues along the SR 26 corridor in the study area. Recommendations to address these access issues form the basis of a conceptual corridor access management plan for SR 26. These recommendations are summarized below.

1. Plan and map parallel roadway and cross street networks along SR 26 to provide a clear framework for implementing alternative access along the corridor.
 - Each jurisdiction should add segments of the parallel roadway system to the capital improvements element of its comprehensive plan and require developer participation in implementing the system through fair share agreements as a condition of development approval for SR 26 concurrency mitigation.
 - Consider establishing a long term concurrency management system plan for accomplishing this supporting network on selected segments of SR 26.
 - Consider establishing a corridor management overlay ordinance for segments of SR 26 to aid in implementing parallel roadways and interparcel cross access in selected areas.
2. Establish a local government thoroughfare plan and adopt or update right-of-way preservation requirements to advance development of arterial and collector streets throughout the community:
 - Adopt a future traffic circulation map in the comprehensive plan that identifies the network of planned arterials and collectors to be preserved and assigns future right-of-way needs for each mapped street.
 - Enact policies and regulations that clearly restrict building in the right-of-way of a mapped transportation facility without a variance, and that clarify that ROW dedication will be roughly proportionate to development impacts.
 - Address right-of-way preservation in the development review process and provide for measures to mitigate hardship on property owners and preserve property rights, such as on-site density transfers, cluster options, and modifying alignments.
3. Enforce local street network and connectivity standards to help reduce reliance on SR 26 for short local trips:
 - Strongly enforce existing standards that require subdivisions to continue and connect to existing local and collector street networks.
 - Require developments to connect through to side streets at appropriate locations.
 - Require internal roads for residential subdivisions and consider allowing some variation in local street design to accommodate variety of cross section types, unpaved shared access drives for rural residential areas, and “skinny” streets where desired to maintain small town residential character.
4. Promote and enforce activity center development for commercial areas along SR 26 and increase the depth of commercially zoned areas where necessary to avoid commercial strip development;

- For large commercial developments require the provision and/or continuation of local and collector streets and provide street connections with surrounding residential areas so residents may access the center without traveling on SR 26;
 - Require shopping centers and mixed-use developments to provide a unified access and circulation plan and require any outparcels to obtain access from the unified access and circulation system.
 - Clarify in regulations that properties under the same ownership or those consolidated for development will be treated as one property for the purposes of access management and will not receive the maximum potential number of access points for that frontage indicated under *minimum* access spacing standards.
5. Strengthen and update local land division and access regulations to address access management on SR 26 and help reinforce development alternative access roads:
 - Establish that existing lots unable to meet the access spacing standards for SR 26 must obtain access from platted side streets, parallel streets, service roads, joint and cross access, or the provision of easements.
 - Establish minimum access spacing standards for locally-maintained thoroughfares and use these to guide corner clearance, as well. Maintain adequate corner clearance at crossroad intersections with SR 26.
 6. Enact the necessary coordination measures with FDOT District 2 access permitting staff to ensure that conditions are placed in the access permit requiring properties to remove nonconforming access points and/or obtain alternative access in areas where parallel roads, service roads, and side street networks are planned. Provide FDOT access permitting staff with an opportunity to coordinate in review of proposed plats and development applications along the SR 26 corridor to prevent access problems.
 7. Consider establishing a corridor management team made up of representatives of each local government and FDOT District 2 to facilitate coordination in implementing alternative access along the SR 26 corridor and to address requests for deviation from SR 26 access spacing requirements and local alternative access plans.
 - In addition, FDOT District 2 should consider designating a regional access permit coordinator to participate in this process.”

EXHIBIT E: SAMPLE CORRIDOR ACCESS MANAGEMENT AGREEMENTS

SAMPLE CORRIDOR MANAGEMENT PLAN AGREEMENT

Staff Action: S-2004-0453

**Corridor Master Plan
U.S. 6 Corridor
Dallas County, Iowa
Agreement No: 2003-16-085**

This U.S. 6 Corridor Master Plan, hereinafter referred to as the “Plan”, is entered into by and between the Iowa Department of Transportation, hereinafter referred to as the “DOT”, the City of Clive, Iowa hereinafter referred to as “Clive”, the City of Urbandale, Iowa hereinafter referred to as “Urbandale” and the City of Waukee, Iowa hereinafter referred to as “Waukee”.

WHEREAS, the purpose of this plan is to define parameters for transportation management, access management, land use and development characteristics along the U.S. 6 highway corridor within the limits defined. The designated corridor extends from Interstate 35/80 (I-35/80) on the east extending westerly to the west corporation limits of Waukee.

WHEREAS, it is not the purpose of this Plan to identify specific projects, rather, its purpose is to establish guidelines which shall promote safe and efficient traffic flow and which shall enhance and sustain economic development along the corridor. The Cities shall be able to use this Plan as a tool for managing economic development along U.S. 6.

NOW, THEREFORE, IT IS AGREED as follows:

The general standard for management of the U.S. 6 Corridor are as follow:

A. PLANNING

Future fully directional access to U.S. 6 shall be limited to public road connections at ¼ mile spacing (see Exhibit “A” attached). Other direct accesses to U.S. 6 may be authorized as right in right out only. All other access shall be provided from other public roads. Remaining U.S. 6 frontage shall be access controlled.

Access connections along U.S. 6 may be required to have appropriate acceleration and deceleration lanes, tapers and other appropriate geometric features to insure that the impacts of the adjoining development are fully mitigated. Fully directional

access connections may also include appropriate left turn storage where necessary.

Access road concepts shall be initiated in the platting stage of each industrial/retail development activity. Access roads which are constructed shall be offset from the U.S. 6 centerline.

All traffic signal construction, within the defined corridor, must conform to 800 meter (½ mile) spacing requirements as shown on Exhibit “A” attached.

OPERATIONS

Existing access connections may be required to have appropriate acceleration and deceleration lanes, tapers and other appropriate geometric features to insure that the impacts of the adjoining development to U.S. 6 are fully mitigated. Fully directional access connections may also include appropriate left turn storage where necessary.

Additional access control may be obtained where necessary.

The general parameters for implementation of the U.S. 6 Corridor Master Plan.

It is understood that this Plan may be appended, amended or vacated by the written agreement of all signatory parties.

It is further understood that this Agreement and all contracts entered into under the provisions of this Agreement are binding upon the DOT and the Cities as defined herein.

The Cities agree to adopt all necessary ordinances and/or resolutions and to take such legal steps as may be required to give full effect to the terms of this Plan.

The DOT and the Cities, as defined herein, will meet on an annual basis to review and evaluate this Plan. The DOT will coordinate this meeting by determining the date and location along with gathering input from the Cities for preparation of the agenda.

No third parties beneficiaries, are intended to be created by this Agreement, nor do the parties herein authorize anyone not a party to this Agreement to maintain a suit for damages pursuant to the terms of provisions of this Agreement.

IN WITNESS WHEREOF, each of the parties hereto has executed Agreement No. 2003-16-085 as of the date shown opposite its signature below:

CITY OF URBANDALE:

By: [Signature] Date October 28, 2003.
Title: Mayor

I, Debra Mains, certify that I am the Clerk of the CITY, and that
Brad Zaun, who signed said Agreement for and on behalf of the CITY
was duly authorized to execute the same on the 28th day of October, 2003.

Signed Debra Mains
City Clerk of Urbandale, Iowa.

IN WITNESS WHEREOF, each of the parties hereto has executed Agreement No. 2003-16-085 as of the date shown opposite its signature below:

CITY OF CLIVE:

By: [Signature] Date October 2, 2003.
Title: Mayor

I, Pamela Shannon, certify that I am the Clerk of the CITY, and that
Les Gashum, who signed said Agreement for and on behalf of the CITY
was duly authorized to execute the same on the 2nd day of October, 2003.

Signed Pamela L. Shannon
City Clerk of Clive, Iowa.

IN WITNESS WHEREOF, each of the parties hereto has executed Agreement No. 2003-16-085 as of the date shown opposite its signature below:

CITY OF WAUKEE:

By: Tony Oleson Date 11/5/03, 2003
Title: Mayor

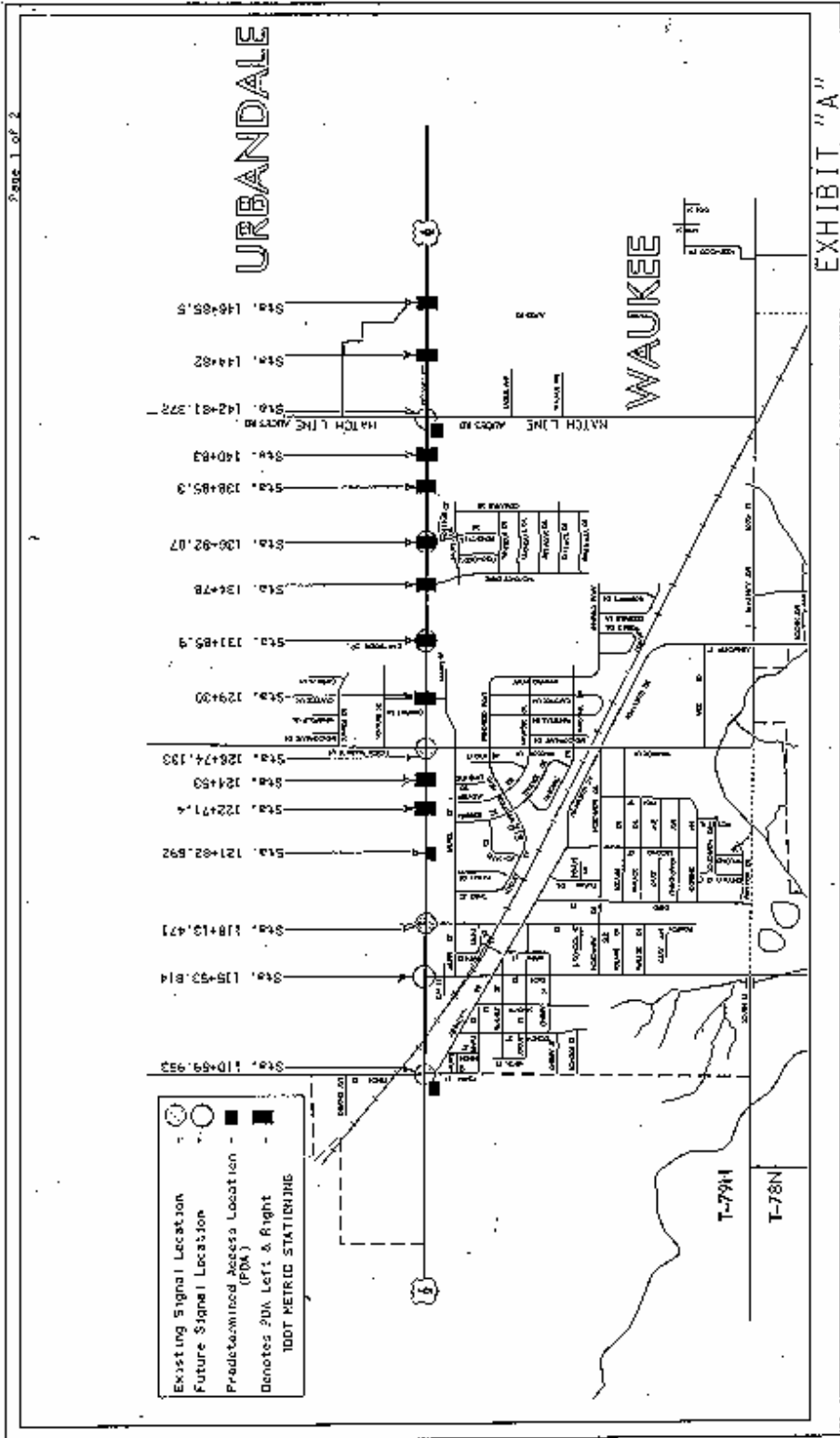
I, MARK J. ARENSEN, certify that I am the Clerk of the CITY, and that
TONY OBERMAN, who signed said Agreement for and on behalf of the CITY

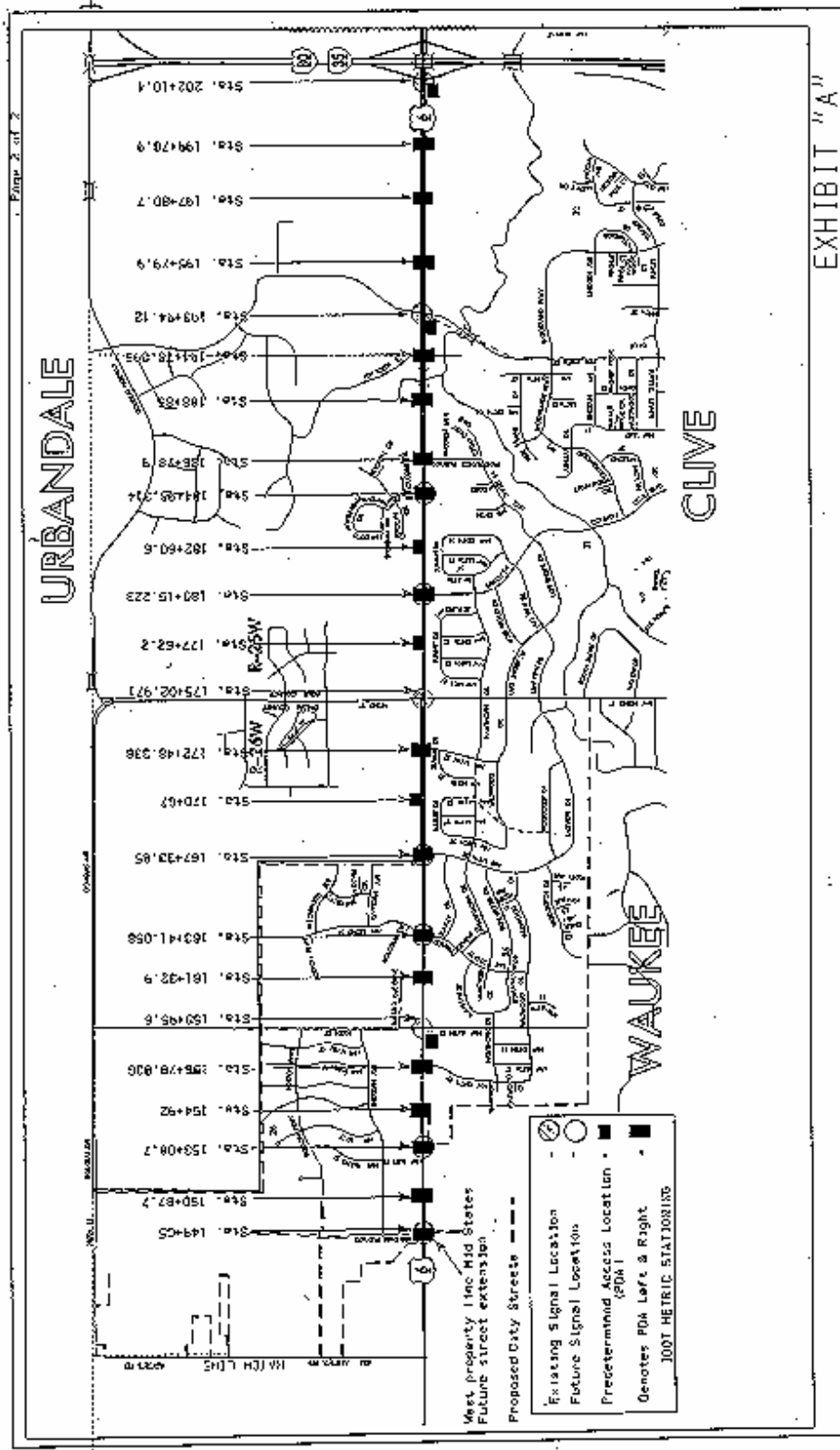
was duly authorized to execute the same on the 3rd day of NOVEMBER, 2003.

Signed Marilyn Osterman
City Clerk of Waukee, Iowa.

IOWA DEPARTMENT OF TRANSPORTATION:

By: John R. Schner Date Nov 24, 2003
John R. Schner
District Engineer
District 4





SAMPLE STATE/LOCAL COORDINATION AGREEMENT OR PROTOCOL

**AGREEMENT BETWEEN
[LOCAL GOVERNMENT]
AND
THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
FOR
COORDINATION IN ACCESS MANAGEMENT DECISION-MAKING**

This is an Agreement between the State of Florida Department of Transportation (DEPARTMENT) and the _____ (LOCAL GOVERNMENT), for the purpose of facilitating coordination between the parties in access management decision-making on the state highway system.

WHEREAS, the DEPARTMENT has an access management program in accordance with Chapter 335.18, FS and RULE 14-96, FAC and Rule 14-97, FAC, for the purpose of preserving the safety and efficiency of the state highway system; and

WHEREAS, the LOCAL GOVERNMENT has enacted comprehensive plan policies and land development regulations for access management and corridor preservation in accordance with Chapter 163, FS, Rule 9J-5, and Chapter 337.273(6), to preserve roadway safety and efficiency and to minimize development encroachment on rights-of-way needed for planned future improvements to the regional transportation network; and

WHEREAS, the DEPARTMENT and the LOCAL GOVERNMENT have mutual goals relating to corridor preservation and access management, as well as policies, regulations, standards and procedures relating to managing corridor development and access, and

WHEREAS, corridor access management efforts of the DEPARTMENT and the LOCAL GOVERNMENT would benefit from a protocol for coordination between the parties involved in access and development review and permitting.

NOW, THEREFORE, in consideration of the mutual terms and conditions hereinafter set forth, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree as follows:

A. On behalf of the LOCAL GOVERNMENT, the DEPARTMENT agrees to undertake the following actions:

1. To designate a point person within the DEPARTMENT to serve as the liaison to the local government for permitting connections and median openings to the state highway system, and to provide the local government with the appropriate contact information and notification of any changes in personnel.
2. To notify the affected local government whenever a connection application or request for a median opening is submitted for District approval within that jurisdiction,

3. To engage in discussions and early shared review of applications with the local government and developer;
4. To solicit feedback from the local government on all access connection requests, before the decision is made to issue a *Notice of Intent* to issue a permit as follows:
 - a. The local government with jurisdiction will provide the DEPARTMENT with a site plan, together with local government comments on the proposed site plan.
 - b. After review of the site plan, the DEPARTMENT will advise the CITY or COUNTY and the applicant of any comments or reservations regarding access to the state highway.
 - c. In the event that the CITY, COUNTY or the DEPARTMENT find deficiencies in the site plan, each affected party agrees to seek resolution of such deficiencies and to develop acceptable revisions to the site plan, to the extent possible, prior to issuing a decision;
5. To solicit feedback from the local government of jurisdiction on all requests for median openings within that local jurisdiction and to provide the local government an opportunity to comment before the decision is made and/or to participate in Access Management Committee meetings where the median opening request is being considered.
6. To review any locally adopted ordinances, plans, or amended zoning districts, to avoid adoption of local standards inconsistent with those of the DEPARTMENT and so that they may be cross-referenced in the connection permit where appropriate.

B. On behalf of the DEPARTMENT, the LOCAL GOVERNMENT agrees to undertake the following actions:

1. To designate a point person within the LOCAL GOVERNMENT to serve as the liaison to the DEPARTMENT for access management issues, and to provide the DEPARTMENT liaison with the appropriate contact information and notification of any changes in personnel
2. To notify the DEPARTMENT liaison when a development or plat application is submitted that impacts the state highway system and to solicit feedback from the DEPARTMENT prior to issuing plat or site plan approval, as follows:
 - a. The local government with jurisdiction will provide the DEPARTMENT with a site plan or plat, together with local government comments on the proposed site plan or plat.
 - b. After review of the site plan or plat, the DEPARTMENT will advise the local government with jurisdiction and the applicant of any comments or reservations regarding access to the state highway.
 - c. In the event that the local government with jurisdiction or the DEPARTMENT find deficiencies in the site plan or plat, each affected party agrees to seek resolution of such deficiencies and to develop acceptable revisions to the site plan or plat, to the extent possible, prior to issuing a decision.
3. To engage in discussions and early shared review of applications with the DEPARTMENT and the developer;
4. To withhold the Certificate of Occupancy for developments with approved access to the state highway system, until the site has been inspected and deemed in compliance with all necessary

requirements of the local government and the DEPARTMENT with regard to the approved site plan and access connection.

5. To participate in meetings, teleconferences, or other consistent methods of coordination on access management issues.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their duly authorized officers as follows:

[to be signed and approved by authorized agents of each party]

EXHIBIT F: CITRUS COUNTY US 19 ACCESS MANAGEMENT PLAN/ORDINANCE

ORDINANCE NO. 2004 A21

AN ORDINANCE TO REVISE AND AMEND ORDINANCE 90-14, THE CITRUS COUNTY LAND DEVELOPMENT CODE, RELATING TO ACCESS MANAGEMENT PERTAINING TO STATE HIGHWAYS; PROVIDING FOR ACCESS SPACING RELATIVE TO DRIVEWAY, MEDIANS, MEDIAN OPENINGS, AND OTHER MATTERS; PROVIDING FOR THE ADOPTION OF THE US-19 ACCESS MANAGEMENT PLAN STANDARDS; PROVIDING FOR LEGISLATIVE FINDINGS AND THE INCORPORATION OF EXHIBITS; PROVIDING FOR LIBERAL CONSTRUCTION; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION AND PROVIDING FOR EFFECTIVE DATE.

WHEREAS, sound planning and land use practices mandate that the Board of County Commissioners of Citrus County provide for reasonable access management standards pertaining to the highways and roads located within the jurisdictional limits of the County; and

WHEREAS, the Board of County Commissioners of Citrus County desires to coordinate its actions with those of the Florida Department of Transportation (FDOT) for the benefit of the citizens of Citrus County and the traveling public; and

WHEREAS, the provisions of Florida law provide for the authority to regulate access to State roads within the jurisdictional limits of Citrus County; and

WHEREAS, the Board of County Commissioners of Citrus County has determined that the provisions of this Ordinance protect the public health, safety and welfare and are in the best interests of the citizens of Citrus County and the general traveling public; and

WHEREAS, the Board of County Commissioners of Citrus County has adopted Phase 1 and Phase 2 of the US-19 Access Management Plan via Ordinance 2003-A19 on September 23, 2003; and

WHEREAS, the provisions of this Ordinance are consistent with the provisions of State law to include, but not be limited to, Chapters 125, 163, 187, and 335, Florida Statutes, Chapter 14-97, Florida Administrative Code (F.A.C.), and other applicable law; and

WHEREAS, the provisions of this Ordinance are consistent with the Citrus County Comprehensive Plan; and

NOW, THEREFORE, BE IT ORDAINED by the Board of County Commissioners of Citrus County, Florida, as follows:

SECTION 1. LEGISLATIVE FINDINGS/EXHIBITS/CONSTRUCTION.

- (a) The recitals set forth above in the whereas clauses to this Ordinance are hereby adopted as legislative findings relating to the enactment of this Ordinance.
- (b) The exhibits attached to this Ordinance (Numbers “14” through “20”) depict the US-19 corridor, Phase 3, defined as that section of the US-19 corridor from Ashburn Lane north to the Levy County line, the locations for planned median openings, auxiliary turn lanes and planned frontage/reverse frontage roads along the US-19 corridor and are hereby incorporated herein by this reference and made a material part of this Ordinance.
- (c) The exhibits Numbered “14” through “20” shall be amended to the previously adopted exhibits Numbers “1” through “13”, representing Phases 1 and 2 of the US-19 Access Management Plan.
- (d) The provisions of this Ordinance shall be liberally construed to accomplish the objectives set forth herein for the benefit of the citizens of Citrus County and the traveling public.

SECTION 2. AMENDMENT TO SECTION 4224.STATE HIGHWAY ACCESS MANAGEMENT, of the Citrus County Land Development Code (LDC), is hereby amended to read as follows:

- A. Standards for minimum spacing of access points for all arterial highways shall be by posted speed, in accordance with Chapter 14-97, F.A.C., FDOT Access Management Standards. The access spacing shall be as follows:

FDOT ACCESS MANAGEMENT CLASSIFICATIONS

STATE HIGHWAY	FROM	TO	CLASS
US-41	Hernando County Line	CR 48	4
	CR 48	SR-44 and Highland Blvd.	5
	SR-44 and Highland Blvd.	Montgomery Ave.	6
	Montgomery Ave.	Marion County Line	3
US-19 and 98	Hernando County Line	CR-44/W. Fort Island Trail	3
	CR-44/W. Fort Island Trail	SR-44/NE 5 th St.	6
	SR-44/NE 5 th St.	NW 7 th St.	4
	NW 7 th St.	Levy County Line	3
SR-200	US-41	Marion County Line	3
SR-44	US-19 and 98	Joyner Rd.	6
	Joyner Rd.	680 feet West of CR-581	3
	680 feet West of CR-581	US-41/N. Florida Ave.	6
	US-41/N. Florida Ave.	US-41/S. Florida Ave.	6
	US-41/S. Florida Ave.	Sumter County Line	3
US-98	Hernando County Line	US-19	4-3

ACCESS DESIGN CLASS FEATURES	OPENING SPACING	ACCESS DIRECTIONAL MEDIAN SPACING	MINIMUM FULL MEDIAN SPACING (In Miles)	MINIMUM SIGNAL SPACING (In Miles)
2 Restrictive with service roads	1320'/660'*	1320'	0.5	0.5
3 Restrictive	660'/440'*	1320'	0.5	0.5
4 Nonrestrictive	660'/440'*	N/A	N/A	0.5
5 Restrictive	440'/245'*	660'	0.5/0.5*	0.5/0.5*
6 Nonrestrictive	440'/245'*	N/A	N/A	0.25
7 Both	125'	330'	0.125	0.25

* Note: Greater than 45MPH/Less than or =45MPH

B. US-19 Access Management Plan Standards

The following access management standards for development activities are hereby established as the US-19 Access Management Plan standards for all development abutting the US-19 corridor commencing at the Hernando County Line and terminating at the Levy County line. This ordinance also includes those properties abutting US-19 that were within the County's jurisdiction prior to the annexation adopted on April 26, 2004 by the City of Crystal River.

1. **Access Plan Intent and Purpose:** The intent and purpose of the US-19 Access Management Plan (hereinafter referred to as the Access Plan) is to, consistent with State law, guide the specific placement of driveways, medians, median openings, auxiliary turn lanes, and frontage and/or reverse frontage roadways along the US-19 corridor. This Access Plan, in concert with the goals, objectives and policies of the Citrus County Comprehensive Plan and sound and generally accepted growth management and transportation engineering practices and principles, is designed as a peremptory planning instrument to mitigate future traffic congestion and vehicular safety concerns resulting from future development and background traffic growth along the US-19 corridor by, among other things, limiting and minimizing the number of traffic conflict points and locations. The Access Plan is intended to shorten queues of traffic, reduce vehicular congestion and balance the need to access property with the need of adequate traffic circulation and mobility on transportation facilities. Additionally, the intent of the Access Plan is to minimize access to environmentally sensitive lands. The planning of access management and adoption of access standards pertaining to the US-19 corridor will provide guidance relative to the location of driveways, medians, median opening locations, turn lane configurations, and driveway spacing, thereby improving the predictability of the development review process and otherwise enhance the process of reviewing development proposals.
2. **Plan Runs with the US-19 Corridor:** The Access Plan shall apply, to the maximum extent permitted by law, to the US-19 corridor commencing at the Hernando County Line and terminating at the Levy County line. The Access Plan shall be applicable, to the maximum extent permitted by State law, regardless of the local governmental jurisdiction

of the properties located in the US-19 corridor. Annexation by a municipality of any property shall not affect the applicability of the Access Plan.

3. **Access Classification:** The FDOT has classified the roadway section specifically included in the Plan as an Access Class 3 facility. A Class 3 facility has restrictive (raised) medians, directional median opening minimal spacing of 1,320 feet, and full median opening minimal spacing of 2,640 feet. The Access Plan utilizes these standards as guidelines for the placement of median openings.
4. **Frontage or Reverse Frontage Roads:** Parcels that are adjacent to or in close proximity to frontage or reverse frontage roads as depicted in the Access Plan shall provide a connection to this roadway. As a condition of development approval, a development plan must provide for the construction of the section of frontage road or reverse frontage road that provides access to US-19 as identified in the Access Plan. This shall be accomplished as practical and may necessitate an escrow of funds and/or development agreement for future construction.
5. **Joint and Cross Access:** Each development plan shall provide for appropriate stub-outs to support cross access between adjacent parcels.
6. **Driveway Spacing Standards:** The minimum separation distance between adjacent driveways shall conform to the FDOT Access Management standards according to the assigned access design classification. The County shall require a minimum driveway spacing of 660 feet where feasible and practicable consistent with sound and generally accepted engineering practices and principles.
7. **Driveway Throat Distances:** The minimum length of driveways, or throat distance, shall vary based upon the proposed land use for the particular parcel of land and the projected daily and peak hour traffic volumes for the proposed development on the property. To minimize potential vehicle stacking that would present a traffic operational or safety concern on US-19, the minimum throat distance for any driveway subject to the Access Plan shall be the following:
 - a. Sites generating up to 50 peak hour trips and with a right-turn lane - 40 feet;
 - b. Sites generating up to 50 peak hour trips and no right-turn lane - 60 feet;
 - c. Sites generating from 51 to 99 peak hour trips and with a right-turn lane - 75 feet;
 - d. Sites generating from 51 to 99 peak hour trips and no right-turn lane - 100 feet;
 - e. Sites generating 100 or more peak hour trips with a right-turn lane - 150 feet;
 - f. Sites generating 100 or more peak hour trips and no right-turn lane - 200 feet.
8. **Isolated Corner Properties:** Properties located at the intersection of a roadway and US-19 are considered isolated corner properties and development on such properties may be permitted to have only right-in and right-out driveway access on US-19 with all driveways located as far as and feasible, consistent with sound and generally accepted engineering practices and principles, away from the roadway intersection.
9. **Continuous Right Turn Lanes:** Development plans shall avoid the use of continuous right-turn lanes that access several contiguous properties. The use of shared, joint or cross access and interconnected parking lots and frontage roads shall be maximized in each development plan to accomplish property access along the US-19 corridor.

Appropriate easements and other rights shall be deeded to the County, when appropriate, to implement this requirement.

10. **Commercial Nodes:** The Access Plan has been developed to be consistent with and compatible to the provisions of the Citrus County LDC, Sections 4922, 4923, and 4924 for Community, General, and Regional Commercial Nodes, respectively. Full median openings depicted on the Access Plan within these nodes have been located to meet, to the greatest extent feasible and practicable consistent with sound and generally accepted engineering practices and principles, the spacing requirement of 2,640 feet as specified in the aforementioned Sections.
11. **Wetland/Environmentally Sensitive Areas:** Environmentally sensitive areas have been tentatively identified in the Access Plan and access to these areas has been reasonably limited. Consistent with the objective of preserving environmentally sensitive lands, access over properties identified as such lands is prohibited; provided, however, that the owner or developer may apply for a variance pursuant to the provisions of this Ordinance and as otherwise provided in the Citrus County LDC. The specific limits of the environmentally sensitive areas shall be verified and depicted in each development plan prior to the review and approval of the development plan. The intent of the Access Plan is to minimize any disturbance of all environmentally sensitive lands while providing for the reasonable use of developable property and reasonable access to property.
12. **Minimum Lot Widths:** The depth of any lot shall not exceed three times its width. In addition, the minimum lot width for purposes of this plan shall be 100 feet for residential lots and 150 feet for nonresidential lots. Lot aggregation for purposes of proposed development plans shall be encouraged for any parcels of record that do not meet this requirement and cause adverse impacts to traffic circulation.
13. **Lot Splits:** No new or additional access rights will be permitted for properties that are created as the result of parcel or lot splits subsequent to the enactment of this Ordinance.
14. **Deviations/Variances from Standards:** The applicant for any development plan shall have the burden of providing substantial competent evidence including, but not limited to, evidence from a licensed Florida professional engineer or other expert in the field of transportation/land use planning, demonstrating hardship and unique conditions that prohibit a development plan from conforming with the requirements of the Access Plan. The applicant must provide compelling data and analysis to the County that a requested variance would improve traffic circulation and efficiency of and the general safety of the citizens of Citrus County and the traveling public on US-19; that no alternative access exists from a street with a lower functional classification than US-19; and that there is no possible access from a joint and cross access agreement, shared driveway, frontage road or reverse frontage road. The deviations from standards process shall be consistent with the County's Level 2 review process, and shall include a public notification process approved by appropriate County staff. Decisions from the County's Level 2 review process shall be forwarded to the FDOT, District 7, Access Management Review Committee, for review and consideration.
15. **Interim Access:** Any access point or median opening that does not comply with one (1) or more provisions of this Subsection may be designated as Interim Access upon approval by the Planning and Development Review Board (PDRB) or Community Development Director based upon the requisite and competent evidence being submitted

by the applicant and accepted by the County. In all cases where the access is designated as Interim Access, such access shall be specifically noted on the site plan or subdivision plan submitted for approval. The requirement to provide subsequent alternative access shall run with the property and be a condition of development approval. The future planned alternative access shall be specifically identified. When the property is capable of being served by an alternate means of access, the Community Development Director or PDRB shall require that the Interim Access be eliminated or altered, at the cost of the applicant, and that the property utilize the new access location that is consistent with the provisions of this Subsection.

16. **Interchange Management Area:** At the time of adoption of this ordinance, Florida's Turnpike Enterprise is evaluating the feasibility of the extension of the Suncoast Parkway, which currently terminates at US-98 in south Citrus County. The feasibility evaluation includes the termination of the proposed Suncoast Parkway extension at US-19 north of County Road 488 near Basswood Avenue. If this proposed termination is determined to be feasible, and subsequent planning and design activities are funded by Florida's Turnpike Enterprise, Citrus County will implement sound and generally accepted growth management and transportation engineering practices to this interchange area to mitigate potential traffic congestion and vehicular safety concerns resulting from the interchange and potential development within the interchange area. The specific provisions to be utilized within the generally defined boundary of the Suncoast Parkway and US-19 Interchange Management Area will be consistent with the provisions stated in this ordinance for the US-19 corridor. For purposes of access management planning, the limits of the Interchange Management Area shall be a minimum of 2,640 feet north and south of end of the interchange ramp tapers at US-19.

SECTION 3. CONFLICTS.

(a) The provisions of Section 335.184, Florida Statutes, and the rules of the Florida Department of Transportation as set forth in Chapter 14-97, Florida Administrative Code, are applicable in the jurisdictional limits of Citrus County, Florida, and supersede this Ordinance in the event of any irreconcilable conflict.

(b) All ordinances or part of ordinances in conflict with the provisions of this Ordinance are hereby repealed.

SECTION 4. SEVERABILITY. If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, the remainder shall nevertheless be given full force and effect, and to this end the provisions of this Ordinance are declared severable.

SECTION 5. CODIFICATION. This Ordinance shall be codified in the Land Development Code of Citrus County. The Code codifier is granted authority to change the words "Ordinance" and other words to reflect the Part, Section, Article, etc., assigned in the Code, except that Sections 3, 4, 5, and 6 shall not be codified. The recitals, except for the last recital, to this Ordinance shall be codified as the legislative intent for the enactment of this Ordinance. The Exhibits to this Ordinance shall be codified.

SECTION 6. EFFECTIVE DATE. This Ordinance shall become effective in accordance with the provisions of Section 125., Florida Statutes.

DONE AND ADOPTED at a duly called session of the Board of County

Commissioners of Citrus County, Florida, this ____ day of _____, 2004.

ATTEST:

BOARD OF COUNTY
COMMISSIONERS OF
CITRUS COUNTY, FLORIDA

BETTY STRIFLER, CLERK

By: Josh Wooten
Chairman

APPROVED AS TO FORM
AND CORRECTNESS:

COUNTY ATTORNEY
Robert B. Battista

EXHIBIT G: SAMPLE CROSS ACCESS AGREEMENT

Citrus County, Florida

CROSS ACCESS EASEMENT AGREEMENT

BY THIS CROSS ACCESS EASEMENT AGREEMENT made this ____ day of _____, _____, for and in consideration of the sum of _____ (\$_____) and other good and valuable consideration, _____, whose mailing address is _____ hereinafter called the GRANTOR, hereby creates for the benefit of _____ who mailing address is _____; hereinafter called GRANTEE, a Cross Access Easement, including the right to construct, reconstruct, replace, remove, and maintain and use GRANTEE's traffic access and circulation infrastructure to include all necessary and proper fixtures for use in connection with and enjoyment of said shared access points across the following described real property, situate in Citrus County, Florida, more particularly described in Exhibit "A" attached hereto and incorporated herein by reference, and as generally depicted within the site plan attached hereto as Exhibit "B" incorporated herein by reference.

Concomitant coextensive with this right is the further right in the GRANTEE or its agents for ingress and egress over and on that portion of GRANTOR's land described in Exhibit "A" attached hereto, as necessary to effectuate the purposes of the easement herein granted. Such right shall be exercised over the route that occasions the least practicable damage inconvenience to the GRANTOR.

GRANTEE shall repair any damage caused by it to GRANTOR's lands, both within the grant of easement and any off-site area approximately caused by the GRANTEE's use of the rights granted herein.

The granting of this Easement to the above-named GRANTEE is perpetual and shall inure to the benefit of GRANTEE's heirs, successors, titles, and assigns.

WITNESS

GRANTOR

WITNESS

STATE OF FLORIDA)
COUNTY OF CITRUS)

The foregoing instrument was acknowledged before me this ____ day of _____, _____, by _____, who is personally known to me or who has produced _____ as identification and who did/did not take an oath.

NOTARY PUBLIC

WITNESS

GRANTEE

WITNESS

STATE OF FLORIDA)
COUNTY OF CITRUS)

The foregoing instrument was acknowledged before me this ____ day of _____, _____, by _____, who is personally known to me or who has produced _____ as identification and who did/did not take an oath.

NOTARY PUBLIC

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