Access Management
Resource Guidebook

Presented to FDOT District Five
Intermodal Systems Development Unit

October 3, 2006

Florida Department of Transportation District Five  October 2006
Purpose of the Guidebook

- Provide an introductory overview of general access management principles.
- Discuss access management standards and regulations in Florida.
- Develop an access management resource inventory.

After going through this guidebook, the students / professionals will understand the basic concepts of access management and will know where to find related information for their purposes.
Target Audience

- Entry level engineering and planning professionals dealing with access management issues in planning, design, project management, right-of-way, safety and traffic operations.

- This guidebook will be useful not only to FDOT staff but also to professionals with other public agencies, consulting firms, developers, and business owners.
Contents

- What is “access management”
- Access management principles
- Access management - national perspective
- Access management – state initiatives
- Access management in the State of Florida
- Driveway/ connection application form
- Site plan & trip generation
- Access management standards – Rule 14-97, F.A.C.
- Access spacing standards
- Interim standards, modification of classification
- Median opening & access management decision process
- Overview of the FDOT driveway handbook
- Overview of the FDOT median handbook
- Other resources & contacts
- Training information
- Contact Information
What is “Access Management”

- Access management is a comprehensive approach to the management and regulation of driveways, medians, median openings, traffic signals, and freeway interchanges. The purpose of access management is to provide access to land development while limiting and separating traffic conflict points in order to increase safety and efficiency of the transportation system. It also ensures balance between accessibility and mobility while increasing the capacity of a roadway system.
Access Management
Reduces Traffic/
Multimodal Conflict Points

**Driver Survey**

- 78% felt safer
- 84% felt traffic moved better

Drivers surveyed along five improved corridors in Central Florida FDOT District 5 *(Ivey Harris & Walls - 1995)*

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Before Access Management

11 Conflicts

After Access Management

6 Conflicts
Access Management Principles

- Provide a specialized roadway system.
- Limit direct access to major roadways (major roadways serving regional traffic need more access control to ensure mobility).
- Promote intersection hierarchy (interchange, signalized intersection, non-signalized intersection) and preserve the functional area of intersections and interchanges (access connections too close to intersections can cause crashes and congestion).
- Minimize conflict points and ensure safe distance between conflict points to allow drivers adequate response time.
- Separate turning lane traffic from through lane traffic to ensure efficiency of the transportation system.
- Provide a connected circulation system.
Access Management – National Perspective

- National efforts to integrate access management with planning, policy and design processes – Transportation Research Board (TRB) committee ADA70.

- TRB access management manual covers access management principles, policies, techniques, and steps in developing access management programs.

- “Documentation of the benefits of access control has been available since 1902” – P. Demosthenes, 1999, access management policies: an historical perspective.

- Research on effects of access management –
  - Add nontraversable median = ≥ 55% reduction in total crashes, ≥30% decrease in delay, ≥ increase in capacity.
  - Add a left-turn bay = 25% to 50% reduction in crashes on 4-lane roads, up to 75% reduction in total crashes at unsignalized access, 25% increase in capacity.

TRB maintains an online resource database (available at http://www.accessmanagement.gov/resources.html).

2004 Access Management DVD/CD Library – contains a wealth of access management documents and resources. To obtain a free copy of the DVD/CD contact Neil Spiller at neil.spiller@fhwa.dot.gov.
Access Management – State Initiatives

- Michigan Access Management Handbook is available online at http://www.accessmanagement.gov/pdf/GuidebookMI.pdf
- Iowa Access Management Handbook is available online at http://www.ctre.iastate.edu/Research/access/amhandbook/AMhandbook.pdf
- Access Management Manual, Texas Department of Transportation, is available online at http://www.accessmanagement.gov/pdf/Texas_acm.pdf
Florida Department of Transportation uses access management as a systems planning tool (FDOT access management resources are available online at http://www.dot.state.fl.us/planning/systems/sm/accman/).

Access class GIS data is available online at http://www.dot.state.fl.us/planning/statistics/GIS/default.htm.
Access class data is also available on the Transportation Automated Information Management System (TAIMS - an application available through FDOT intranet) and the FDOT Highway Data CD/ Roadway Characteristics Inventory (RCI).
Driveway Permits – Rule 14-96, F.A.C.

- Required before the initiation of the connection construction.
- This rule does not apply to limited access facilities.
- Voluntary pre-application for a category C, D, E, F, or G connection *(advisory in nature, free service).*

- For categories C through G, additional information on trip generation, site plan, transportation facility and neighboring connection information, and connection location and design information is required.
- Permit applications are processed/handled by the FDOT District Operations and Maintenance Office.
### Driveway Permits – Rule 14-96, F.A.C. (continued..)

#### Connection Category and Application Fee

<table>
<thead>
<tr>
<th>DESCRIPTION/PROJECTED AVERAGE VEHICLE TRIPS PER DAY OF SITE</th>
<th>APPLICATION FEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category A - Uses to 20 VTPD</td>
<td>$ 50</td>
</tr>
<tr>
<td>Category B - Uses with 21 - 600 VTPD</td>
<td>$ 250</td>
</tr>
<tr>
<td>Category C - Uses with 601 - 1,200 VTPD</td>
<td>$1,000</td>
</tr>
<tr>
<td>Category D - Uses with 1,201 - 4,000 VTPD</td>
<td>$2,000</td>
</tr>
<tr>
<td>Category E - Uses with 4,001 - 10,000 VTPD</td>
<td>$3,000</td>
</tr>
<tr>
<td>Category F - Uses with 10,001 - 30,000 VTPD</td>
<td>$4,000</td>
</tr>
<tr>
<td>Category G - Uses with 30,000 + VTPD</td>
<td>$5,000</td>
</tr>
</tbody>
</table>

Available online at [http://www.dot.state.fl.us/planning/systems/sm/accman/pdfs/1496.pdf](http://www.dot.state.fl.us/planning/systems/sm/accman/pdfs/1496.pdf)
# Driveway / Connection Application Form

**OFFICE USE ONLY**

<table>
<thead>
<tr>
<th>Application Number:</th>
<th>Received By:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section/Mile Post:</td>
<td>State Road:</td>
<td></td>
</tr>
<tr>
<td>Section/Mile Post:</td>
<td>State Road:</td>
<td></td>
</tr>
</tbody>
</table>

**Instructions - To Applicant**

- Contact the Department of Transportation to determine what plans and other documents you are required to submit with your application.
- Complete this form (some questions may not apply to you) and attach all necessary documents and submit it to the Department of Transportation.
- For help with this form contact your local maintenance or District Office.
- Or visit our website at www.dot.state.fl.us/onestoppermitting for the contact person and phone number in your area.
- You may also email - driveways@dot.state.fl.us
- Or call your District or local Florida Department of Transportation office and ask for Driveway Permits.

**Please print or type**

**APPLICANT:**

- Check one:
  - Owner
  - Lease
  - Contract to Purchase

Name: ______________________

Responsible Officer or Person: ______________________

If the Applicant is a Company or Organization, Name: ______________________

Address: ______________________

City, State: ______________________

Zip: ______________________

Phone: ______________________

Fax: ______________________

Email: ______________________

**LAND OWNER (if not applicant)**

Name: ______________________

If the Applicant is a Company or Organization, Name: ______________________

Address: ______________________

City, State: ______________________

Zip: ______________________

Phone: ______________________

Fax: ______________________

Email: ______________________

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**AUTHORIZED REPRESENTATIVE:**

If specified by applicant or tenant, represent, sign, and file the application.

- A notarized letter of authorization must be provided with the application.

Name: ______________________

Company Name: ______________________

Address: ______________________

City, State: ______________________

Zip: ______________________

Phone: ______________________

Fax: ______________________

Email: ______________________

Address of property to be served by permit (if known): ______________________

If address is unknown, provide distance from nearest intersecting public street (such as 500 feet south of Main St.)

Check here if you are requesting:

- New driveway
- Temporary driveway
- Modification to existing driveway
- Sale/Transfer

Does the property owner own or have any interests in any adjacent property? Yes: ______________________

No: Yes, if yes please describe: ______________________

Are there other existing or dedicated public streets, sidewalks or access easements bordering or within the property? Yes: ______________________

No: Yes, list them on your plans and indicate the proposed and existing access points.

**Local Government Development Review or Approval Information:**

Local Government Contact: ______________________

Name: ______________________

Government Agency: ______________________

Phone #: ______________________
The application form is available online at

http://formserver.dot.state.fl.us/MiscRepository/forms/85004015.pdf
Site Plan & Trip Generation

Example

Property on Sand Lake Road – Site Plan & Daily Trip Generation

- Spreadsheet for calculating trip generation using ITE rates/ equations (7th Edition) is available at http://www.dot.state.fl.us/planning/systems/sm/accman/default.htm#pubs

- Trip Generation Software by Microtrans, Inc. available online at http://www.tripgeneration.com/index.htm
Access Management Standards – Rule 14-97, F.A.C.

- Rules of the Department of Transportation, chapter 14-97, state highway system access management classification system and standards.
- Adopts an access classification system and standards to implement the state highway system access management act of 1988 for the regulation and control of vehicular ingress to and egress from the state highway system.
- The standards are basis for connection permitting and the planning and development of FDOT construction projects.
- Seven classification access management systems are used for all roads on the state highway system.
## Access Spacing Standards

<table>
<thead>
<tr>
<th>Access Class</th>
<th>Segment Location</th>
<th>Applicable Interchange Spacing Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AREA TYPE 1</td>
<td>1 MILE</td>
</tr>
<tr>
<td></td>
<td>CBD &amp; CBD FRINGE FOR CITIES IN URBANIZED AREAS</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>AREA TYPE 2</td>
<td>2 MILES</td>
</tr>
<tr>
<td></td>
<td>EXISTING URBANIZED AREAS OTHER THAN AREA TYPE 1</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>AREA TYPE 3</td>
<td>3 MILES</td>
</tr>
<tr>
<td></td>
<td>TRANSITIONING URBANIZED AREAS AND URBAN AREAS OTHER THAN AREA TYPE 1 OR 2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>AREA TYPE 4</td>
<td>6 MILES</td>
</tr>
<tr>
<td></td>
<td>RURAL AREAS</td>
<td></td>
</tr>
</tbody>
</table>

### Class 1 spacing

- **Most restrictive (class 2)** to least restrictive (class 7)

<table>
<thead>
<tr>
<th>ACCESS CLASS</th>
<th>FACILITY DESIGN FEATURES</th>
<th>MINIMUM CONNECTION SPACING</th>
<th>MINIMUM MEDIAN OPENING SPACING</th>
<th>MINIMUM MEDIAN OPENING SPACING</th>
<th>MINIMUM SIGNAL SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(FEET)</td>
<td>DIRECTIONAL</td>
<td>FULL</td>
<td>(MILE)</td>
</tr>
<tr>
<td>2</td>
<td>Restrictive with Service Roads</td>
<td>1320/660</td>
<td>1320*</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>3</td>
<td>Restrictive</td>
<td>660/440</td>
<td>1320*</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>4</td>
<td>Non-Restrictive</td>
<td>660/440</td>
<td>N/A</td>
<td>N/A</td>
<td>0.5</td>
</tr>
<tr>
<td>5</td>
<td>Restrictive</td>
<td>440/245</td>
<td>660*</td>
<td>0.5/0.25</td>
<td>0.5/0.25</td>
</tr>
<tr>
<td>6</td>
<td>Non-Restrictive</td>
<td>440/245</td>
<td>N/A</td>
<td>N/A</td>
<td>0.25</td>
</tr>
<tr>
<td>7</td>
<td>Both</td>
<td>125</td>
<td>330*</td>
<td>0.125</td>
<td>0.25</td>
</tr>
</tbody>
</table>

(Greater than 45 MPH/ Less than or = 45 MPH)
Interim Standards, Modification of Classification

- Interim standards to be applied to the State Highway System prior to classification.

<table>
<thead>
<tr>
<th>Posted Speed</th>
<th>Minimum Connection Spacing</th>
<th>Minimum Median Opening (Full)</th>
<th>Minimum Median Opening (Directional)</th>
<th>Minimum Signal Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>(MPH)</td>
<td>(Feet)</td>
<td>(Miles)</td>
<td>(Feet)</td>
<td>(Miles)</td>
</tr>
<tr>
<td>35 or less</td>
<td>125</td>
<td>0.125</td>
<td>330</td>
<td>0.25</td>
</tr>
<tr>
<td>Special Case</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 or less</td>
<td>245</td>
<td>0.25</td>
<td>660</td>
<td>0.25</td>
</tr>
<tr>
<td>36 - 45</td>
<td>440</td>
<td>0.25</td>
<td>660</td>
<td>0.25</td>
</tr>
<tr>
<td>Over 45</td>
<td>660</td>
<td>0.50</td>
<td>1320</td>
<td>0.25</td>
</tr>
</tbody>
</table>

- Classification of a roadway is reviewed and modified if required.
Median Opening & Access Management Decision Process

- Guidance for staff as well as for the District Access Management Teams
- Three Principles – traffic safety, traffic efficiency and highway functional integrity
- Decision process should account for the “big picture” (impacts on community, impacts on business, etc.) in addition to the engineering considerations
- Deviations shall not be considered until the feasible options for meeting access management standards are analyzed
- Higher the access management class, the fewer deviations from the standards should be allowed (access class 1 is least flexible)
- Deviations from the standards should show an overriding benefit in safety or traffic operations or be shown not to degrade traffic safety, traffic efficiency, or highway functional integrity
- Deviation from the standards shall be made under the direct supervision of a Department Professional Engineer knowledgeable in access management and traffic operations
- More information available online at http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/625010021.pdf
Overview of the FDOT Driveway Handbook

- Introduction to driveways
- Connection radius and flare
- Driveway width
- Driveway grade
- Driveway channelization
- Driveway length
- Right turn lanes
- Sight distance at driveways
- Driveway location
- Driveways and the Pedestrian environment

Available online at http://www.dot.state.fl.us/planning/systems/sm/accman/pdfs/drivewayHB.pdf
Overview of the FDOT Median Handbook

- Introduction and overview of medians and their benefits
- Understanding medians and median opening placement
- Sight distance as it relates to medians and median opening design
- Median width
- Special u-turn considerations
- Where the turning vehicle goes
- Available online at
- A new interim 2006 version available at
  http://www.dot.state.fl.us/planning/systems/sm/accman/pdfs/mhb06b.pdf
Other Resources and Contacts

- Florida Highway Landscape Guide available online at
- Site Impact Handbook available online at
  http://www.dot.state.fl.us/planning/systems/sm/siteimp/PDFs/site.pdf
- 2002 Quality/ Level of Service handbook available online at
- The Interchange Handbook is available online at
  http://www.dot.state.fl.us/planning/systems/sm/intjus/interchangehb/complete.pdf
Other Resources & Contacts (continued..)

- FDOT Access Management CD Library
  Gary Sokolow
  Florida Department of Transportation
  Mail Station 19, 605 Suwannee Street
  Tallahassee, Florida 32399-0450
  Telephone: (850) 414-4912 SunCom: 994-4912
  Fax: (850) 414-4876 gary.sokolow@dot.state.fl.us

- Driveway Permit Contacts by Geographic Region/ County -
  http://www.dot.state.fl.us/onestoppermitting/access_type.htm

- Center for Urban Transportation Research - University of South Florida -
  http://www.cutr.usf.edu/research/access_m/intro.htm
  Kristine M. Williams, AICP, Senior Research Associate
  Center for Urban Transportation Research
  (813) 974-9807 krwillia@cutr.eng.usf.edu

- Iowa Access Management Awareness Project
  http://www.ctre.iastate.edu/research/access/

Training Information

1. Register for FDOT access management training
   http://www.dot.state.fl.us/planning/systems/sm/accman/pdfs/training.pdf

2. Online recorded training
   a. The Principles of Access Management – Product of the National Access
      Management Committee – Transportation Research Committee – *(Uses Flash)*
      http://www.accessmanagement.gov/10principles.html
   b. Site Traffic Studies: Top Pitfalls and their solutions – Presenter: Gary Sokolow
      Florida DOT – Tallahassee, Florida *(Uses Flash)*
   c. Top Ten Public Involvement Problems – Presenter: David Gwynn HNTB – Orlando, Florida *(Uses Flash)*
   d. Safety of U-turns - Presenter: Ingrid Potts Midwest Research Institute - Kansas City, Missouri *(Uses Flash)*
   e. Introduction to Access Management – Kristine Williams – Center for Urban Transportation Research – Tampa, Florida *(Uses Windows Media Player)*
      http://www.nctr.usf.edu/clearinghouse/netconference/access082003/accessmanagement.wmv
Contact Information

For Further Information Related to this Resource Guidebook, Please Contact:

John Zielinski
Intermodal Systems Supervisor
133 S. Semoran Blvd.
Orlando FL 32807
407-482-7868 SC 335-7868
FAX 407-275-4188
john.zielinski@dot.state.fl.us

Mansoor Khuwaja or Santanu Roy
HDR Engineering, Inc.
315 E Robinson Street, Suite 400
Orlando, FL 32801-1949
Phone: (407) 420-4200
mansoor.khuwaja@hdrinc.com
santanu.roy@hdrinc.com