

Bruce W. Landis, P.E., AICP

Vice President

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Planners and Engineers
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CERTIFICATION

State of Florida, Professional Engineer Registration No. 41968
State of Delaware, Professional Engineer Registration No. 10952
State of Maryland, Professional Engineer Registration No. 24562
Commonwealth of Virginia, Professional Engineer Reg. No. 0402 036061
State of Georgia, Professional Engineer Registration No. 027540
State of Louisiana, Professional Engineer, # 30634
American Institute of Certified Planners, Certificate No. 8934

EDUCATION

Master of Science of Civil Engineering, University of South Florida
Bachelor of Civil Engineering, Georgia Institute of Technology, graduated w/ Highest Honors

EXPERIENCE

Mr. Landis is a veteran site civil and traffic operations engineer with extensive experience throughout North America. His analysis, planning, engineering design and construction project experience with streets, roadways, intersections, bicycle & pedestrian facilities, and land development sites totals in the hundreds. His project locations range across North America from Florida, to New York, to Texas, California, Alaska, Hawaii and many areas in between. This experience, coupled with his nationwide transportation safety, operational studies and site civil designs encompassing over 200,000 miles of roadways & streets and site developments, qualifies him as one of the most widely experienced experts in the United States.

Mr. Landis is also the principal investigator on a number of federal and state research studies regarding transportation facility safety and operations, behavioral studies and bicycle and pedestrian facilities design guidelines. He and his staff develop numerous planning, analysis and design methodologies and software programs being used throughout North America by state DOTs, regional transportation agencies and numerous local governments. He serves federal, state, regional, metropolitan, and local agencies as well as private sector clients.

Mr. Landis serves as an expert witness throughout the United States in cases related to the interaction of motor vehicles, bicyclists and pedestrians and related facility design, operation

and maintenance of highways, streets, shopping center parking lots and related environments.

APPOINTMENTS / AFFILIATIONS

Transportation Research Board:

Committee A3B04 – Pedestrian Committee, Member

Committee A3A10 – Highway Capacity and Quality of Service, subcommittee member

Institute of Transportation Engineers, member

National Traffic Engineering Certification Committee, advisory member

FHWA Research Study – *Index for Assessing Pedestrian and Bicyclist Safety at Intersections*, National Expert Panel, member

ITS Joint Program Office - *Driver Perceptions of Urban Arterials* – Expert Panel member

NHTSA / FHWA – *Highway Safety Study: Best Practices for All Modes* – Expert Panel member

American Planning Association, member

NHTSA – *Pedestrian Exposure and Crash Risk* – National Expert Panel member

ITS Joint Program – *Drivers' Perceptions of Service Quality on Urban Arterials*, National Expert Panel, member

PUBLICATIONS

“A Methodology for Improved Sampling Techniques and Trip Characteristics Determination for Traffic Impact Analyses and Assessments” in *Transportation Research Record 1400*, TRB, National Research Council, Washington, DC, November 1993“

The Interaction Hazard Score Model: A Theoretical Model for Bicycle Facilities Planning” January 1994. Also published in *Transportation Research Record 1438*, TRB, National Research Council, Washington, DC 1994

“Bicycle System Performance Measures” in the *ITE Journal*, Institute of Transportation Engineers, Washington, DC, February 1996

“Real-Time Human Perceptions: Toward a Bicycle Level of Service” in *Transportation Research Record 1578*, TRB, National Research Council, Washington, DC, 1997

“Modeling the Roadside Walking Environment: A Pedestrian Level of Service” in *Transportation Research Record 1773*, TRB, National Research Council, Washington, DC, 2001 – Awarded 2001 Outstanding Paper Award by TRB Committee A3B04

“Multi-modal Level of Service (LOS) Analysis at a Planning Level” in *Transportation Research Record 1776*, TRB, National Research Council, Washington, DC, 2001 – Awarded with co-author Martin Guttenplan the Best Paper Award 2001 by TRB Committee A3A10

“Intersection LOS: the Through Bicycle Movement” final research report for FDOT Systems Planning. Tallahassee FL, 2002.



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“Intersection LOS for the Bicycle Through Movement”. Transportation Research Record 1828. Transportation Research Board, Washington, DC. 2003.

“Characteristics of Emerging Road and Trail Users”, 83rd Annual Meeting Compendium of Papers, Transportation Research Board, Washington, DC 2004.

Selected Transportation & Safety Projects

Federal Highway Administration (FHWA): Pedestrian Safety Engineering and ITS-Based Countermeasures Program for Reduced Pedestrian Fatalities, Injuries, Conflicts and Other Surrogate Measures – Chief Engineer & Pedestrian Safety Expert – ongoing nationwide study 2002-2006

Cross-Town Expressway Extension Alternative Alignment Studies – PM and Lead Engineer – 1998

Federal Highway Administration (FHWA): Index for Assessing Pedestrian and Bicyclist Safety at Intersections Study – Senior Engineer & Researcher – ongoing study 2005

Truck Route Network Study – Hillsborough County – Chief Traffic Engr. and lead Planner, 1996

Federal Highway Administration (FHWA): Operational & Safety Characteristics of Emerging Road and Trail Users National Study – Project Director & Principal Investigator, 2004

Federal Highway Administration (FHWA) & National Highway Institute (NHI): National Bicycle & Pedestrian Facilities Design Courses – Course Curriculum Development & Instructor – ongoing project 2001-2004

Intersection Level of Service: the Bicycle Through Movement – Principal investigator in the development of FDOT’s statistically-reliable model of intersection conditions reflecting bicyclists’ behavioral response – Fall 2002.

Florida Intrastate Highway System (FIHS) – Lead Investigator and Transportation Engineer on continuing General Consulting Services contract. Significant projects included the I-95 / Old Dixie Highway / Powerline Road Corridor Analysis in Ft. Lauderdale; the I-275 / Nebraska Ave / Florida Ave Corridor Analysis in Tampa; the SR 60 corridor analysis in Clearwater; and several FIHS corridors in District 1.

Florida DOT / Gainesville MTP0: US Highway 441 Corridor Safety Study – PM & Principal Safety Researcher –2002. Project includes incremental benefit-cost analysis for mutually-exclusive bicycle facility and multi-use trail alternatives for facility type recommendations.



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Federal Highway Administration (FHWA): Operational & Safety of Shared Use Paths National Study – Senior Engineer & Researcher – ongoing study 2004

Americans with Disabilities Transition Plan – Project Manager for developing Hillsborough County’s ADA Transition Plan – completing in 2004.

Multi-modal Highway Performance Measures – FDOT 2002 Quality / Level of Service Handbook – Principal Investigator for development of non-motorized quality / level of service performance measures.

MDOT - Maryland Statewide Bicycle & Pedestrian Plan – Principal Plnr / Engr – 2003

Phoenix Arizona: Maricopa Association of Governments’ Pedestrian Plan 2000 – Project Director, Principal Planner / Engineer – study completed 2000

Lexington Kentucky: Regional Bicycle & Walking Conditions Assessment – Project Director, Principal Engineer – study completed 2000

Arizona DOT – Evaluation of State Highway System Accommodation of Non-motorized Travel – Project Director and Chief Engineer – study completed December 2000.

FDOT District 7 Corridor and Subarea Studies – Chief Traffic Engineer – Continuing on-call services through 2004

Sacramento County (California): Americans with Disabilities Act (ADA) Transition Plan / Master Pedestrian Plan – Principal Planner / Engineer – 2003

Bicycle Facility Selection and Multi-Use Sidepath & Intersection Design Guidelines – Principal Investigator – On-going study 2004.

SELECTED EXPERT WITNESS, COMMERCIAL & TRAFFIC TRANSPORTATION PROJECTS

1st Union Bank at Ehrlich and Lynne Turner Roads

Adcock Insurance Fletcher Ave. Office Bldg.

Albertsons at Bloomingdales and Lithia-Pinecrest

Arby’s on Fletcher

Arby’s Winterhaven

Blockbuster Lithmilller – Diversified Real Estate Services

Boston Chicken at 9203 US 19

Boston Market – Jacksonville

Boston Market at Apalachee Pkwy. Tallahassee

Boston Market at Bay Meadows Rd. Jacksonville

Boston Market at N. Orange Blossom Orlando

Colonade Parking Lot

Dennys at Englewood

Dennys at Port Charlotte

Dennys at Venice



Walgreens at Busch & 56 th	Walgreens at Curlew & 19	Walgreens at Gandy & Westshore
Walgreens at Kennedy & Westshore	Gas and Oil Outparcel	Hardees at Green Cove Springs
Hardees at Live Oak	Home Depot Traffic Analysis	Kash N/Karry at Gainesville Mall
Kenny Rogers at Sarasota	Kenny Rogers at Port Charlotte	Magnolia Layne Shopping Center Greencove Springs
Mastro Subaru Expansion	Mattress Giant	McElroy Body Shop
Mendez/Chunn at Summerfield	Mercury Motors Addition	Nebraska Automart
NorthLake Square Shopping Center	Ocala Mall	Palm River Square Shopping Center
Pick Kwik at Erlich & Zambito	Plant City Automart	Point Plaza Drive Thru
Point Plaza Movie Theatre	Publix – Tampa Store #21	Publix #4260M Replacement
Publix Store #17	Publix Store #310	Publix Store #42 St. Petersburg
Publix Store #51 – AB Zoning	Publix Store #511 – Inspection	Publix Store #511 Ped Connections
Punta Gorda Shopping Center	Quick 10 Center	Scotty's Mainstreet
Shoppes of Bloomingdale	Summerfield Chevron Station	Taco Bell at Bradenton
Taco Bell at Fowler	Taco Bell at MLK & Parsons	Taco Bell at Palm Harbor
Taco Bell at Port Richey	Taco Bell at Bayshore Gardens	The Seville Parking Lot
U.S. 301 Service Center	Walgreens – Boyette & Bell Shoals, Brandon	Walgreens – Gainesville: Tower Rd. & 24 th Ave. Gainesville
Walgreens at Central & Pasadena St. Petersburg	Walgreens at Powerline & Cypress Traffic Study	Walgreens 10 th & Haverhill Traffic Analysis
Walgreens at Bruce B. Downs and Dona Michelle	Walgreens at Gandy & Westshore	Walgreens at International Pkwy – Lake Mary
Walgreens at Kennedy & Westshore	Walgreens at LeChalet & Military	Walgreens at Macon Rd. & Elm Dr. Columbus, GA
Walgreens at MLK & Armenia	Walgreens at MLK & Lakewood	Walgreens at Martin Luther King & Lakewood
Walgreens at S. Florida Ave. & E. Highland Dr., Lakeland	Walgreens at SR50 & Bridgeway Orlando	Walgreens at U.S. 98 & Carpenter's Way Lakeland
Walgreens at Zephyrhills	Walgreens in Largo	AJF Leasing
Benefield Mine	Bent Tree Farms	Faulkenburg Warehouse
Lumber Transit Shed	Port Redwing Development	Publix – Sarasota Warehouse expansion
Riverview Flower Farms	Alvarez Homes/Longmire Medical Office	Arlington Soccer Complex, Arlington, VA
Bell South Mobility – Hickory Hills	Bell South Mobility – Floral City	Bell South PCS at Tooke Lakes-Gonis
Berean Bible Church	Brandon Assembly of God Master Plans	Clerbrook Miniature Golf
Country Pet Supply	Faith Children's Home	Florida/Bearss Office Park
Floyd & Dale Mabry Child Care La Petite Academy – Greenhollow	Grace Bible Church La Petite Academy at Henderson	La Petite Academy at Carson Dr. – Pasco La Petite Academy – Longwood, FL
La Petite Academy at Gateway Rd. Ft. Myers	La Petite Academy at I-4 in Lakeland	La Petite Academy at Lockwoodridge Rd., Bradenton



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La Petite Academy at Panama City	La Petite Academy, The Blue Lagoon, Miami	Parsons Avenue Office Zoning
Point Plaza Day Care	Seminole Presbyterian School	Parker's Landing
Renfrow Estates County	100 Unit RV Campground ExpAcme Boot Co.	Impact Fee – Orange
Albertson's Litigation Signal Improvement	Alexander Ext. Median Design	Alexander St. & Mendonsa Rd.
Bayway Bridge Replacement Bridge	Bealls Traffic Analysis	Bellevue Shopping Center
Car Dealership – Lake County	Cherokee Properties vs City of Tampa	Clorox Corporation vs FDOT
County Line Road Traffic Study	Cypress Creek Campground	FDOT vs Fyock
FDOT vs Hope Presbyterian	FDOT vs Kiester Parcel 827	FDOT vs Lovering-Pleasants Commercial
FOG Development vs Columbus Consolidated Govt. Georgia	Hernando County Bicycle Safety Conditions Evaluation	R/W & Bridges Inventory & Assessment
Hills. MPO Traffic Volumes	Hillsborough County Eminent Domain	Hillsborough Truck Route Study
Hillsborough County vs Carrollwood Oaks POA, Inc.	National Highway Capacity Expert	FDOT vs NCJ Parcel 106
New Jersey DOT Rt. 1 Corridor Study	<i>Obenchain vs Kroger Company</i> Roanoke, VA Linda Frith, Esq. (540) 772-4600	Parcel 101 Bloomingdale & Providence
S. Florida Baptist Hospital	<i>Olender vs Pinellas County</i> Brian Weakland, Esq. (813) 935-1180	Plant City Traffic Studies
Signal Warrant Study - Park Rd. & Calhoun St.	Signal Warrant Study – Woodrow Wilson & Airport Rd.	Store #511 Pedestrian Gap Study
Safer – TMP Software ICBC - British Columbia	Sussex County Bicycle LOS Evaluation, DE	
Signal Warrant Study - Alexander & Mendonsa	Walden Lake Unit 15-B Roadway Design Safety Analysis	<i>ELSTA vs King County</i> , Washington State East Lake Sammamish Trail Howard Schneiderman, Esq. (206) 205-0923 Seattle, WA
<i>Marquez vs City of Albuquerque</i> Allegra Carpenter, Esq. (505) 843-6161 New Mexico	<i>Nortsen v. Patel, et al</i> Steve Coronado, Esq. (816) 471-6900 Kansas City, MO	<i>Masters v. EckerdCorp</i> Allen Sang, Esq. (401) 622-7888

SELECTED NON-MOTORIZED TRANSPORTATION / SAFETY STUDIES

CBD Traffic Circulation and Downtown Parking Study (Bicycle and Pedestrian Circulation and Safety Elements) - Municipality of Anchorage - **Anchorage, Alaska**. - This comprehensive study for one of the most northern metropolitan areas of the United States includes the most technically advanced method of analyzing bicycling conditions, the *Bicycle Level of Service Model*. Using the *Model* and the *Highway Capacity Manual's* arterial and intersection analysis methods, several innovative TSM-type improvements were identified to create bikeways within the confines of the urban streets. The Project Team exercised careful consideration of the unique aspects of the Alaskan environment to design pedestrian and bikeway connections from the central business district to the extensive urban trail system.



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Metropolitan Area Pedestrian System Plan - Hillsborough County MPO - **Tampa, Florida**. Adopted in November of 1998, the *Hillsborough County MPO's Pedestrian System Plan* is an effective implementation plan for a multi-jurisdictional, multi-agency planning area. *The Plan* takes an innovative approach to area-wide pedestrian system planning using state-of-the-art planning methods to develop its four comprehensive Action Programs: the *On-Road Network Expansion*, the *Urban Trail System*, the *Mode Shift Incentive Program* and the *Safety Enhancements Program*.

Regional Roadway Network Bicycle Level of Service Study - Baltimore Metropolitan Council - **Baltimore, Maryland**. This project involves an extensive 1200-mile, five county, data collection and compilation, bicycling conditions (level of service analysis), and conditions mapping initiative. The project is a partnership between the BMC staff, the regional council's constituent government agencies, and the consultant team with technical leader, Bruce Landis.

Regional Bicycle, Pedestrian, and Greenways Plan - Birmingham Regional Planning Council - **Birmingham, Alabama**. This APA award-winning project is a clear example of success in regional bicycle, pedestrian, and greenways planning. A unique blend of technical methods introduced by the *SCI* staff and artful coordination of general public and advocacy groups by the team led by prime consultant *Greenways Incorporated* resulted in major gains in federal enhancement and CMAQ funding. An upcoming article in *The MPO Monitor* newsletter further highlights important aspects of this metropolitan area plan covering over 800 miles of roadway and nearly 100 miles of off-road trails.

Buffalo Regional Bikeways Implementation Plan - Niagara Frontier Transportation Authority - **Buffalo, New York**. A regional plan of nearly 900 miles of urban streets, suburban roadways, and rural roads saw the first application of the now widely-used *Bicycle Level of Service Model*. Developed by the staff of *SCI*, the *Model* was adopted by the Niagara Frontier Transportation Authority and is used by the New York State Department of Transportation to evaluate roadway cross-section design options for bicycle facility benefit-cost analyses.

Statewide Bicycling Conditions / Level of Service Evaluation - Delaware Department of Transportation. The State's motto "First in the Nation" applies to its statewide evaluation of all 6000 + miles of roadways for bicycling conditions within its highway system. The *SCI* staff, as part of an on-call bicycle and pedestrian planning services contract team, is the technical lead on the statewide analysis. Bicycle road maps will be published for commuters and recreational bicyclists and the general public to influence a mode shift within the state highway system.

CMAQ-Mode Shift Bicycle-Pedestrian Study - Houston-Galveston Area Council - **Houston, Texas**. The Houston-Galveston TMA, facing serious air quality issues, is building an extensive network of over 300 miles of combined on-road bicycle and urban trail facilities with \$34M of CMAQ funds. The Council of Governments has funded an extensive before-and after- study to quantify bicycle use and mode-shifts. The agency has selected the



consultant team (with technical lead, *SCI*) to develop the mode shift analysis methodology and conduct the first phase (existing conditions) before facilities are built this Fall. The *SCI*-led project team will use a nested logit model structure for the analysis of the bikeway and urban trail corridors.

Bicycle / Pedestrian Regional Master Plan - Ocala-Marion County MPO - **Ocala, Florida.** The *Ocala-Marion County Bicycle/Pedestrian Master Plan* blueprints a 130-mile urban trail network integrated with an on-road bicycle transportation system. The extensive bicycle, pedestrian, and equestrian trails and pathways will link the historic downtown to the intrastate *Cross-Florida Greenway* and the existing Withlacoochee State (rail) Trail.

The Philadelphia City-wide Bicycle Network Plan - Department of Streets, City of Philadelphia - Philadelphia, Pennsylvania. The *Philadelphia Bicycle Plan* blueprints a city-wide system of bikeways integrated within the existing street network and urban trail / city park system. *The Plan* has a strong foundation on established analytical methods which eliminate the “guess work” in bicycle facility programming - the *Bicycle Level of Service* and *Latent Demand Score Models*. The *Bicycle Level of Service Model* enables the City’s engineering staff to evaluate actual bicycling conditions, test facility alternatives, and implement the optimum bicycle facility improvement.

Comprehensive Bicycle Plan - Hillsborough County MPO - **Tampa, Florida.** The *Comprehensive Bicycle Plan* for the Hillsborough County MPO provides an example of bicycle planning for the needs of a large diverse geographic area. In this particular case, the Tampa Bay Area had specific large scale high density urban needs that were addressed by *SCI* staff through a creative modification of the Four E’s of bicycle planning as well as a hybrid combination of the FDOT’s Area and Corridor Analysis Technique (ACAT) with travel demand theory. *SCI* skillfully united a diversity of interests through interaction with various agencies and focus groups. This was evidenced by the unanimous support of the Plan given by the Bicycle Advisory Update Subcommittee, the CAC, TAC, MPO Board, the local transit agency and FDOT.

For a complete listing of Mr. Landis’ project history, please contact Barbara Garland at Sprinkle Consulting at 888-462-3514.