

Economic impact of potential development around the 9 commuter rail stations totals:

- Increase in assessed valuation of \$7.9 billion
- Increase in annual retail sales of \$750 million
- This does not include the spillover of development and redevelopment, and increased land and property values which will occur in neighborhoods adjacent to the immediate station areas¹⁹

A balanced transportation system for 21st century economic development must provide transportation alternatives to freeway driving, including greatly improved public transportation.

3.3 Coordinating Freeway and Transit Projects

Coordinating freeway and transit projects can lead to major successes. A notable example is the I-25 “T-REX” project in Denver. The federal Highway Administration highlights this project on their website, stating:

The T-REX’s initial footsteps can be traced back to a 1992 congestion study commissioned by the Denver Regional Council of Governments (DRCOG). The study found that traffic volume along the corridor had exceeded its maximum capacity of 180,000 vehicles per day and, within a few years, the freeway would be near gridlock most of the day. Adding to the gloomy forecast of gridlock, planners projected that 150,000 new jobs would be added in the downtown area and at the huge Denver Tech Center, which is 15 miles (24 kilometers) to the south, over the next 20 years. The study not only recommended widening the freeway by several lanes, but it also suggested incorporating some type of mass transit into any future improvements.

In response, the Colorado Department of Transportation and the Denver Area Regional Transportation District in cooperation with the FHWA and the Federal Transit Administration, widened and reconstructed 18 miles of I-25 and I-225, and constructed 19 miles of light-rail transit line with 13 new rail stations. The roadway portion of this project was completed in August 2006 and the light-rail transit line opened for service in November 2006. The T-REX project was completed on time and on budget. While the light-rail transit ridership exceeds expectations and traffic volumes exceed the volumes prior to construction, all T-REX components are operating smoothly and as planned.²⁰

The high level of freeway/transit coordination in T-REX was driven in part by the opportunity for costs savings due to the simultaneous construction of both projects were in the same corridor. There is no such direct financial linkage between I-94 and the KRM Commuter Link. Nevertheless, moving ahead on both projects simultaneously as a coordinated mobility strategy for Kenosha, Racine, and southern Milwaukee Counties would show Wisconsin’s commitment to a balanced transportation system, and would encourage development around rail stations (and the associated potential for revitalization of existing urban centers) rather than simply facilitating dispersed suburban development around freeway interchanges.

¹⁹ Southeastern Wisconsin Regional Planning Commission, The Kenosha-Racine-Milwaukee Commuter Link Newsletter, Edition 3, January 2007.

²⁰ <http://www.fhwa.dot.gov/majorcapacity/project06.cfm>

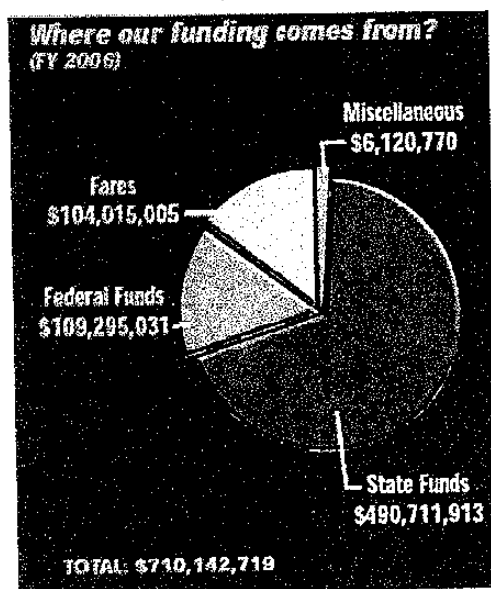
3.4 Wisconsin Lags Other States in Supporting Public Transportation

The KRM commuter link project has been under consideration for decades and is at an advanced planning stage today. We understand that the project is currently on hold due to a lack of committed funding. In the current regional long-range transportation plan (SEWRPC Report #49), while the words “budget” or “budgetary” appear 24 times in relation to transit—generally as a limitation on what can be done—they never appear in relationship to road projects. This appears to imply that while transit funding is highly constrained, funding for road construction is available, even if this requires borrowing the money through bonding.

The commuter rail funding obstacle must be overcome, and WisDOT should play a central role. As discussed above, the average vehicle on the section of I-94 between the Illinois state line and I-43 traverses only 10 miles of this roadway section, while the average trip length on the KRM Commuter Link is likely to be significantly longer. This strongly makes the case that the KRM would function as an inter-city (as opposed to local) transportation facility at least as much as I-94 currently does. The KRM Commuter Link is explicitly designed to carry intercity traffic, including passengers to Chicago. It would therefore follow that significant state resources should be made available to the project. The current policy of relying almost exclusively on funding from multiple local jurisdictions to develop an intercity transit system thus far failed to deliver this much-needed project.

Other state Departments of Transportation contribute heavily to commuter rail. For example, the Maryland Transit Administration (MTA), part of the Maryland Department of Transportation, operates a 200-mile, 42-station commuter rail system. As shown in the figure below, over 2/3 of MTA’s funding is from the State of Maryland.

Maryland Transit Administration Funding Sources



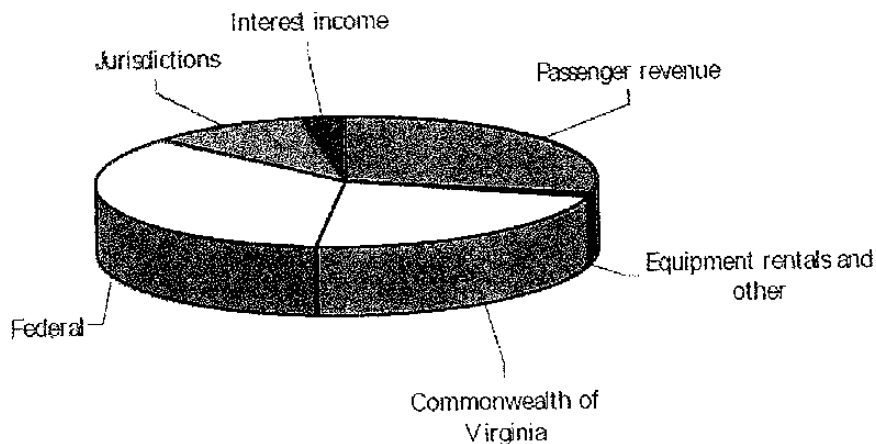
Source: Maryland Department of Transportation, Maryland Transit Administration (MTA)²¹

The Virginia Railway Express (VRE) is a transportation partnership of the Northern Virginia Transportation Commission (NVTC) and the Potomac and Rappahannock Transportation

²¹ [http://www.mta.maryland.com/services/marc/serviceInformation/Brochure\(BOLDTYPE\).pdf](http://www.mta.maryland.com/services/marc/serviceInformation/Brochure(BOLDTYPE).pdf)

Commission (PRTC). VRE provides commuter rail service from the Northern Virginia suburbs to Alexandria, Crystal City and downtown Washington, D.C. VRE relies on both state and local funding, but the state supplies over twice as much money as do the local jurisdictions.

Virginia Railway Express Sources of Revenue



Source: Virginia Railway Express²²

Federal funds are important to both systems, but obtaining federal funds is dependent on the state funding.

More generally, Wisconsin lags other states in applying flexible federal transportation funds for transit. The U.S. Government Accountability Office (GAO) has analyzed the extent to which states use flexible federal transportation funds for transit. The report states:

Since the 1991 creation of the two flexible funding programs this report examines—STP and CMAQ—\$12 billion from these programs has been spent on transit projects; either directly through FHWA or through transfer to FTA. This spending on transit represents 13 percent of the apportionments for these programs since 1992 and 3 percent of the total federal-aid highway program. However, the amount of FTA funding used in some states has been augmented significantly by these funds; in four states, funds transferred from these programs to FTA made up 20 percent or more of total FTA expenditures.²³

Wisconsin is not one of states highlighted in the GAO case study, and only one number is given for Wisconsin in the report. Over the period 1992 – 2006, Wisconsin applied \$76.7 million in flexible federal transportation to transit projects. Using the 2000 state population figure, this is equal to only \$0.95 per person per year. This compares with a national average, calculated the same way, of \$3.25 per person per year.²⁴

If Wisconsin had flexed at the national average rate, an additional \$185 million would have been flexed to transit over the period 1992 – 2006. Including the effects of inflation,

²² http://www.vre.org/about/Financial_statements/VRE_FY2006_Financial_Stm_2006.pdf

²³ U.S. Government Accountability Office (GAO): *Highway and Transit Investments: Flexible Funding Supports State and Local Transportation Priorities and Multimodal Planning*, July 2007, p. 2.

²⁴ We understand that the total funds eligible for flexing is not identical by state on a per capita basis. However, GAO does not provide the total available in the report, so this was the best comparative measure available.

this total is greater than the estimated capital cost of the KRM Commuter Link (\$198 million in 2006\$). Furthermore, if the money had been flexed to transit, it is likely that it could have been used to leverage additional federal transit funding.

States that are making strong commitments to a balanced transportation system are generally flexing higher-than-average amounts to transit. For example, Washington flexed \$3.69 per person per year, and as reported in the GAO report, focused on developing a new rail transit system in the Seattle region:

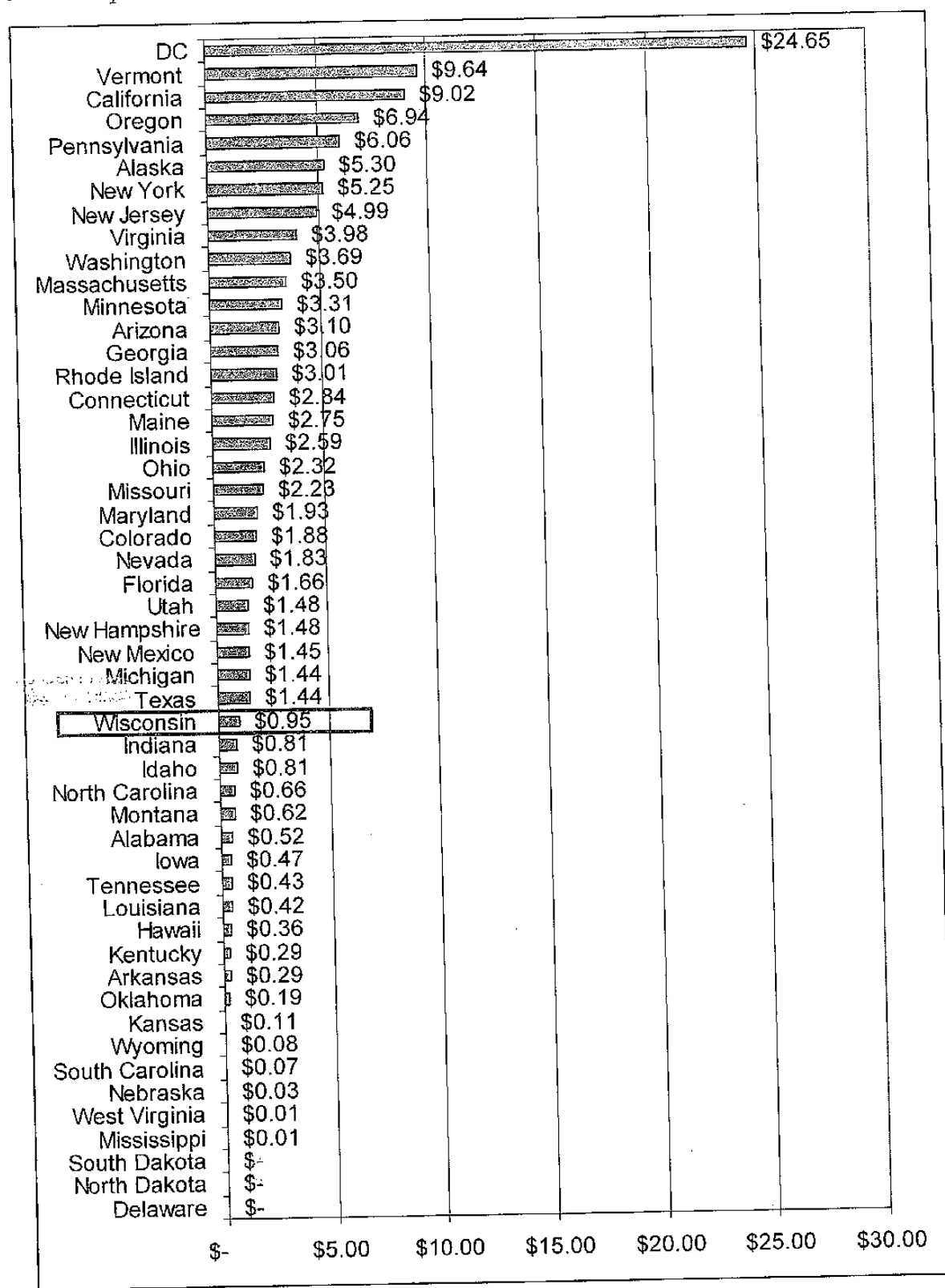
Sound Transit, established in 1995 to build a mass transit system serving the three counties in the Seattle region, is still in a capital-intensive phase, as it continues to complete the infrastructure for the fixed-route portion of the system, including construction of a light-rail line connecting Seattle with the Seattle-Tacoma airport and extending its commuter-rail service south of Tacoma. It has used more than \$112 million in flexible funding for rail car purchases and rail line construction, among other things. In 2007, it was awarded \$9 million in flexible funding to purchase the right-of-way for two light-rail stations. (p. 26)

Virginia flexed \$3.98 per person per year and used part of these monies to develop new transit services in the Virginia Beach region:

The Virginia Beach area, an urbanized area of about 1.3 million people in southeastern Virginia, has significant traffic congestion due to the northern and southern halves of the area being divided by the confluence of the Elizabeth and James Rivers, which is crossed by seven bridges and tunnels. The regional transit operator, Hampton Roads Transit, uses flexible funding to provide new services to help relieve traffic congestion. According to Hampton Roads Transit officials, obtaining local funding for regional projects can be difficult because cities within the region are sometimes reluctant to pay for services in another city. In this way, officials said, flexible funding can better benefit the community by making new services possible.

The Washington and Virginia experiences are both highly relevant to the KRM Commuter Link project. In the Washington case, flexible federal transportation funds were a key part of the financial plan for constructing a new rail transit system. In the Virginia case, the funding avoided challenges in getting local jurisdictions to “pay for services in another city.”

U.S. Transportation Funds Flexed to Transit Projects per person per year (1992-2006)



Sources: Total funding transferred from GAO 2007, Figure 5, p. 16, population from 2000 Census.

Resume

NORMAN L. MARSHALL, Principal

nmarshall@smartmobility.com

EDUCATION:

Master of Science in Engineering Sciences, Dartmouth College, Hanover, NH, 1982
Bachelor of Science in Mathematics, Worcester Polytechnic Institute, Worcester, MA, 1977

PROFESSIONAL EXPERIENCE:

Norm Marshall helped found Smart Mobility, Inc. in 2001. Prior to this, he was at Resource Systems Group, Inc. for 14 years where he developed a national practice in travel demand modeling. He specializes in analyzing the relationships between the built environment and travel behavior, and doing planning that coordinates multi-modal transportation with land use and community needs.

Regional Land Use/Transportation Scenario Planning

Chicago Metropolis Plan and Chicago Metropolis Freight Plan (6-county region)—developed alternative transportation scenarios, made enhancements in the regional travel demand model, and used the enhanced model to evaluate alternative scenarios including development of alternative regional transit concepts. Developed multi-class assignment model and used it to analyze freight alternatives including congestion pricing and other peak shifting strategies. Chicago Metropolis 2020 was awarded the Daniel Burnham Award for regional planning in 2004 by the American Planning Association, based in part on this work.

Envision Central Texas Vision (5-county region)—implemented many enhancements in regional model including multiple time periods, feedback from congestion to trip distribution and mode choice, new life style trip production rates, auto availability model sensitive to urban design variables, non-motorized trip model sensitive to urban design variables, and mode choice model sensitive to urban design variables and with higher values of time (more accurate for “choice” riders). Analyzed set land use/transportation scenarios including developing transit concepts to match the different land use scenarios.

Mid-Ohio Regional Planning Commission Regional Growth Strategy (7-county Columbus region)—developed alternative future land use scenarios and calculated performance measures for use in a large public regional visioning project.

Baltimore Vision 2030—working with the Baltimore Metropolitan Council and the Baltimore Regional Partnership, increased regional travel demand model’s sensitivity to land use and transportation infrastructure. Enhanced model was used to test alternative land use and transportation scenarios including different levels of public transit.

Burlington (Vermont) Transportation Plan – Leading team developing Transportation Plan focused on supporting increased population and employment without increases in traffic by focusing investments and policies on transit, walking, biking and Transportation Demand Management.

Transit Planning

Regional Transportation Authority (Chicago) and Chicago Metropolis 2020 – evaluating alternative 2020 and 2030 system-wide transit scenarios including deterioration and enhance/expand under alternative land use and energy pricing assumptions in support of initiatives for increased public funding.

Capital Metropolitan Transportation Authority (Austin, TX) Transit Vision – analyzed the regional effects of implementing the transit vision in concert with an aggressive transit-oriented development plan developed by Calthorpe Associates. Transit vision includes commuter rail and BRT.

Bus Rapid Transit for Northern Virginia HOT Lanes (Breakthrough Technologies, Inc and Environmental Defense.) – analyzed alternative Bus Rapid Transit (BRT) strategies for proposed privately-developing High Occupancy Toll lanes on I-95 and I-495 (Capital Beltway) including different service alternatives (point-to-point services, trunk lines intersecting connecting routes at in-line stations, and hybrid).

Central Ohio Transportation Authority (Columbus) – analyzed the regional effects of implementing a rail vision plan on transit-oriented development potential and possible regional benefits that would result.

Essex (VT) Commuter Rail Environmental Assessment (Vermont Agency of Transportation and Chittenden County Metropolitan Planning Organization)—estimated transit ridership for commuter rail and enhanced bus scenarios, as well as traffic volumes.

Georgia Intercity Rail Plan (Georgia DOT)—developed statewide travel demand model for the Georgia Department of Transportation including auto, air, bus and rail modes. Work included estimating travel demand and mode split models, and building the Departments ARC/INFO database for a model running with a GIS user interface.

Roadway Corridor Planning

Hudson River Crossing Study (Capital District Transportation Committee and NYSDOT) – Analyzing long term capacity needs for Hudson River bridges which a special focus on the I-90 Patroon Island Bridge where a microsimulation VISSIM model was developed and applied.

State Routes 5 & 92 Scoping Phase (NYSDOT) —evaluated TSM, TDM, transit and highway widening alternatives for the New York State Department of Transportation using local and national data, and a linkage between a regional network model and a detailed subarea CORSIM model.

Twin Cities Minnesota Area and Corridor Studies (MinnDOT)—improved regional demand model to better match observed traffic volumes, particularly in suburban growth areas. Applied enhanced model in a series of subarea and corridor studies.

Developing Regional Transportation Model

Pease Area Transportation and Air Quality Planning (New Hampshire DOT)—developed an integrated land use allocation, transportation, and air quality model for a three-county New Hampshire and Maine seacoast region that covers two New Hampshire MPOs, the Seacoast MPO and the Salem-Plaistow MPO.

Syracuse Intermodal Model (Syracuse Metropolitan Transportation Council)—developed custom trip generation, trip distribution, and mode split models for the Syracuse Metropolitan Transportation Council. All of the new models were developed on a person-trip basis, with the trip distribution model and mode split models based on one estimated logit model formulation.

Portland Area Comprehensive Travel Study (Portland Area Comprehensive Transportation Study)—Travel Demand Model Upgrade—enhanced the Portland Maine regional model (TRIPS software). Estimated person-based trip generation and distribution, and a mode split model including drive alone, shared ride, bus, and walk/bike modes.

Chittenden County ISTEPA Planning (Chittenden County Metropolitan Planning Organization)—developed a land use allocation model and a set of performance measures for Chittenden County (Burlington) Vermont for use in transportation planning studies required by the Intermodal Surface Transportation Efficiency Act (ISTEA).

Research

Obesity and the Built Environment (National Institutes of Health and Robert Wood Johnson Foundation) – Working with the Dartmouth Medical School to study the influence of local land use on middle school students in Vermont and New Hampshire, with a focus on physical activity and obesity.

The Future of Transportation Modeling (New Jersey DOT)—Member of Advisory Board on project for State of New Jersey researching trends and directions, and making recommendations for future practice.

Trip Generation Characteristics of Multi-Use Development (Florida DOT)—estimated internal vehicle trips, internal pedestrian trips, and trip-making characteristics of residents at large multi-use developments in Fort Lauderdale, Florida.

Improved Transportation Models for the Future—assisted Sandia National Laboratories in developing a prototype model of the future linking ARC/INFO to the EMME/2 Albuquerque model and adding a land use allocation model and auto ownership model including alternative vehicle types.

Critiques

C-470 (Denver region) – Reviewed express toll lane proposal for Douglas County, Colorado and prepared reports on operations, safety, finances, and alternatives.

Intercounty Connector (Maryland) – Reviewed proposed toll road and modeled alternatives with different combinations of roadway capacity, transit capacity (both on and off Intercounty Connector) and pricing.

Foothills South Toll Road (Orange County, CA) – Reviewed modeling of proposed toll road.

I-93 Widening (New Hampshire) – Reviewed Environment Impact Statement and modeling, with a particular focus on induced travel and secondary impacts, and also a detailed look at transit potential in the corridor.

Stillwater Bridge – Participated in 4-person expert panel assembled by Minnesota DOT to review modeling of proposed replacement bridge in Stillwater, with special attention to land use, induced travel, pricing, and transit use.

Ohio River Bridges Projects– Reviewed Environmental Impact Statement for proposed new freeway bridge east of Louisville Kentucky for River Fields, a local land trust and historic preservation not-for-profit organization.

Indiana I-69 – Reviewed model analyses from Indiana statewide travel demand model of proposed new Interstate highway for coalition, including the Environmental Law and Policy Center of the Midwest.

Washington, DC region – Reviewed modeling of Potomac River bridge crossings.

Phoenix, Arizona – Reviewed conformity analyses and long-term transportation plan under contract to Tempe, a municipality in the Phoenix region.

Atlanta, Georgia – Critiqued conformity analyses and long-term transportation plan for an environmental coalition.

Daniel Island (Charleston, South Carolina) – Reviewed Draft Environmental Impact Statement for large proposed Port expansion (the “Global Gateway”) for an environmental coalition.

PUBLICATIONS AND PRESENTATIONS (partial list)

Understanding the Transportation Models and Asking the Right Questions. Lead presenter on national Webinar put on by the Surface Policy Planning Partnership (STTP) and the Center for Neighborhood Technologies (CNT) with partial funding by the Federal Transit Administration, 2007.

Sketch Transit Modeling Based on 2000 Census Data with Brian Grady. Presented at the Annual Meeting of the Transportation Research Board, Washington DC, January 2006, and *Transportation Research Record*, No. 1986, “Transit Management, Maintenance, Technology and Planning”, p. 182-189, 2006.

Travel Demand Modeling for Regional Visioning and Scenario Analysis with Brian Grady. Presented at the Annual Meeting of the Transportation Research Board, Washington DC, January 2005, and *Transportation Research Record*, No. 1921, “Travel Demand 2005”, p. 55-63, 2006.

Chicago Metropolis 2020: the Business Community Develops an Integrated Land Use/Transportation Plan with Brian Grady, Frank Beal and John Fregonese, presented at the Transportation Research Board’s Conference on Planning Applications, Baton Rouge LA, April 2003.

Chicago Metropolis 2020: the Business Community Develops an Integrated Land Use/Transportation Plan with Lucinda Gibson, P.E., Frank Beal and John Fregonese, presented at the Institute of Transportation Engineers Technical Conference on Transportation’s Role in Successful Communities, Fort Lauderdale FL, March 2003.

Evidence of Induced Travel with Bill Cowart, presented in association with the Ninth Session of the Commission on Sustainable Development, United Nations, New York City, April 2001.

Induced Demand at the Metropolitan Level – Regulatory Disputes in Conformity Determinations and Environmental Impact Statement Approvals, Transportation Research Forum, Annapolis MD, November 2000.

Evidence of Induced Demand in the Texas Transportation Institute's Urban Roadway Congestion Study Data Set, Transportation Research Board Annual Meeting, Washington DC: January 2000.

Subarea Modeling with a Regional Model and CORSIM" with K. Kaliski, presented at Seventh National Transportation Research Board Conference on the Application of Transportation Planning Methods, Boston MA, May 1999.

New Distribution and Mode Choice Models for Chicago with K. Ballard, Transportation Research Board Annual Meeting, Washington DC: January 1998.

"Land Use Allocation Modeling in Uni-Centric and Multi-Centric Regions" with S. Lawe, Transportation Research Board Annual Meeting, Washington DC: January 1996.

Multimodal Statewide Travel Demand Modeling Within a GIS with S. Lawe, Transportation Research Board Annual Meeting, Washington DC: January 1996.

Land Use, Transportation, and Air Quality Models Linked With ARC/INFO. with C. Hanley, C. Blewitt, and M. Lewis, Urban and Regional Information Systems Association (URISA) Annual Conference, San Antonio, TX, July 1995.

Forecasting Land Use Changes for Transportation Alternative with S. Lawe, Fifth National Conference on the Application of Transportation Planning Methods, Seattle WA, April 1995.

Integrated Transportation, Land Use, and Air Quality Modeling Environment with C. Hanley and M. Lewis Fifth National Conference on the Application of Transportation Planning Methods (Transportation Research Board), Seattle WA, April 1995.

MEMBERSHIPS/AFFILIATIONS

Member, Institute of Transportation Engineers
Individual Affiliate, Transportation Research Board
Member, American Planning Association
Member, Congress for the New Urbanism

Resume

LUCINDA GIBSON, PE, Principal

lgibson@smartmobility.com

EDUCATION

- Master of Science in Engineering Sciences, Dartmouth College, Hanover, NH, 1988
- Bachelor of Science in Civil Engineering, University of Vermont, Burlington, VT, 1983

SELECTED PROFESSIONAL EXPERIENCE:

Ms. Gibson helped found Smart Mobility, Inc. in 2001. Prior to this, she was employed for 7 years at the Two Rivers-Ottawaquechee Regional Commission as a Senior Transportation Planner, and for the previous 6 years at Resource Systems Group, Inc. Her current work at Smart Mobility focuses on context sensitive and multi-modal traffic engineering, preparing alternative transportation solutions for conventional roadway projects, and preparing comprehensive, multimodal community transportation plans. This work includes bicycle and pedestrian planning and design, scenic byway corridor planning, and moving beyond conventional traffic engineering by addressing traffic congestion through improving transportation networks, consideration of land use and development patterns, and broadening the range of options in terms of both routes and modes.

Representative Project Experience

Two Lane Plan for PA Route 41—Prepared conceptual plan alternative to a Four lane limited access widening proposed by Pennsylvania DOT for PA Route 41 through Chester County, PA. Used RODEL for roundabout analysis and design, and VISSIM for developing corridor-wide measures and informational display. Sub-contracted with Barry Crown of Rodel Software, and Faber Maunsell, UK Distributors of VISSIM. Plan is currently under review by PennDOT for consideration as an alternative.

Halfmoon, NY Transportation Analysis and Plan—As part of a project team with Behan Planning Associates to develop an innovative plan for hamlet and mixed use center development in a rapidly growing suburb outside Albany, NY. Plan elements included improves street connectivity within proposed growth areas, pedestrian oriented designs and in the hamlet and mixed use areas, and illustrating access management concepts for the main highway corridors.

Transportation Plan for Montpelier, Vermont—Comprehensive, multimodal transportation plan for the City of Montpelier, Vermont to be integrated into their updated municipal plan. Planning process included public visioning workshop, a review of all modes of transportation, travel demand management and parking options, and options to increase street connectivity. In collaboration with ORW, Landscape Architects.

Chicago Metropolis 2020 Plan for Growth and Transportation—Contributed to this APA Burnham Award-winning project to explore alternative scenarios for growth and transportation investment and management for the Chicago Region. Developed alternative transportation investment strategies and budgets, and prepared modeling input files to analyze these scenarios with an advanced regional TransCAD model.

Dresden School Transportation Committee—Conducted study on the Feasibility of Queue Jump Lane for the Ledyard Bridge Approach in Norwich, Vermont. Reviewed options and obstacles for establishing a bus-only during morning peak hours for buses, with the goal of reducing bus travel time and encouraging school bus and public transit use between Norwich, Vermont and Hanover, New Hampshire.

Barnard Villages Traffic and Growth Management Plan—Developed a plan for Barnard, Vermont's two village areas, including intersection safety, pedestrian circulation, traffic calming, establishing village identity, re-designing lakefront parking on Silver Lake, and exploring opportunities for infill development.

Prairie Crossing Boulevard Plan, Grayslake, Illinois—Developed context sensitive integrated transportation and land use alternative plan for an abandoned Tollway right-of-way through a new urbanist development in Grayslake, Illinois. Integrated traffic and transportation design into community street network and land use patterns. Plan features landscaped boulevards, roundabouts, and improved street connectivity in the area.

Monadnock Traffic Calming Foundation—Developed conceptual traffic calming plan and design criteria for a NHDOT traffic calming project on Route 101 through the center of Dublin, New Hampshire.

NEPA Document Reviews—Reviewed and prepared comments on several EIS and EA documents for community groups and other stakeholders for a variety of projects, including the I-93 Salem to Manchester, NH Widening; the Ohio River Bridges in Louisville, Kentucky; US 202 Section 100 in Chester County, PA.

PROFESSIONAL CERTIFICATIONS AND MEMBERSHIPS

- Professional Engineer – P.E., Vermont Board of Professional Engineering, License #6133
- Member, Institute of Transportation Engineers (ITE)
- Member, Congress for the New Urbanism, Transportation Planning Committee
- Member, Board of Directors, CNU New England Chapter of CNU
- Member, ITE/CNU Design Standards Task Force

PUBLICATIONS

Context Sensitive Design Approach for the Route 41 Corridor, Gibson, Lucinda E., and Dee Durham. Presented the Historic Roads National Conference in Portland, OR. Described multi-faceted approach including research, public involvement and education, used to develop a context sensitive plan for improvements to PA Route 41, an NHS route through scenic rural landscapes and Amish farms. April, 2004.

Chicago Metropolis 2020: The Business Community Develops an Integrated Land Use/Transportation Plan, Gibson, Lucinda E., Frank Beal, John Fregonese, Norman Marshall. Presented at the ITE 2003 Technical Conference, *Transportation's Role in Successful Communities* Presented in Fort Lauderdale, FL, 2003.

Functional Classification for Multimodal Planning, Strate, Harry E., Elizabeth Humstone, Susan McMahon, Lucy Gibson and Bruce D. Bender, Transportation Research Record #1606, Transportation Planning, Programming, and Land Use, National Academy Press, Washington DC, 1997.

SPEAKING ENGAGEMENTS (Partial List)

Smarter Alternatives to Highway Projects. Presented at the American Planning Association annual meeting in San Antonio, TX, April, 2006.

Context Sensitive Traffic Engineering for Historic Road Corridors. Presented at the biannual Historic Roads Conference, Portland, Oregon, April, 2004.

Emerging Transportation Planning Techniques for Smart Growth Planning. Presented at the Smart Growth Network annual conference in Burlington, VT, September, 2003.

Success Stories and How-To's, Vermont Bicycle and Pedestrian Coalition Annual Meeting, Randolph, VT, April, 2002.

Transportation Concepts for Smart Growth Planning, Chicago Metropolis 2020 Steering Committee, Chicago, IL, January 2002.

How Engineers Think, Vermont Historic Preservation Annual Conference, Manchester, VT, June, 1999.



MILWAUKEE PUBLIC SCHOOLS

**Opposition to I-94 North-South Corridor Expansion within the City of Milwaukee
Comments on the Final Environmental Impact Statement
May 2, 2008**

In February of 2006, the Milwaukee Board of School Directors voted to formally oppose proposed freeway expansion in the City of Milwaukee. This opposition includes, but is not limited to, the freeway lane expansion planned as part of the I-94 North-South corridor construction within the City of Milwaukee.

The MPS Board and Administration have a number of concerns related to the health of students and staff members, the impact that freeway expansion will have on the City's tax base and the effects of expansion on MPS schools and infrastructure in close proximity to the current freeway system.

As was noted previously, during the initial comment period for the I-94 Corridor Environmental Impact Statement, one of the district's primary concerns is with the specific effects of air pollution in locations adjacent to proposed areas of expansion. The district continues to be particularly concerned about PM 2.5 or fine particulate matter, which is pollution that is localized in nature, is attributable to diesel exhaust and is related to asthma.

As noted in the Final Environmental Impact Statement, particulate pollution is also related to increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; decreased lung function; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease.

The district understands that the Department of Natural Resources is preparing information for review by the U.S. Environmental Protection Agency (EPA) to determine whether or not areas in southeastern Wisconsin meet new PM 2.5 standards (35 ug/m3 per 24 hours).

The second paragraph on the page numbered 3-68, of the draft environmental impact statement related to the expansion of the I-94 north-south corridor (FHWA-WISC-EIS-07-01-D), reads as follows:

As stated above, the study area in Wisconsin is in attainment for PM_{2.5}, as based on the present designation. The air quality monitoring network in southeastern Wisconsin indicates that **it is likely that a portion of the study areas may be designated as being in non-attainment for the revised PM_{2.5} standard, which became effective on December 17, 2006.** The DNR is presently preparing information for review by U.S. EPA. A final determination on the attainment designation is expected near the end of 2009. **If the designation changes from attainment to non-attainment, SEWRPC and the DNR will develop measures to control PM_{2.5} emissions in accordance with U.S. EPA guidelines so that the region will be in attainment by 2015.** (Emphasis added)

Given the evidence that a portion of the environmental impact study area is likely to be out of compliance with EPA guidelines and given the fact that Milwaukee Public Schools has high incidence of asthma within its student population, and given that a number of schools are adjacent to the I-94 corridor, the district has previously commented that it is extremely concerned that planning measures are not being taken now to control for PM 2.5 emissions.

1 — After a review of the Final Environmental Impact Statement it appears that no action has been taken, and there are no stated plans for it to be taken, with regard to the school district's concerns.

2 — The Final EIS again makes clear that regions within the study area will likely attain non-attainment status. On the page numbered 4-20, the Final EIS makes clear that southeastern Wisconsin "may be designated as non-attainment for PM 2.5 as soon as 2009, based on recent readings that indicate the region exceeds the NAAQS for PM 2.5."

2 — Again on the page numbered 4-80 of the Final EIS, the statement is made that southeast Wisconsin is currently in attainment status for PM_{2.5}, "[h]owever, DNR has indicated that PM 2.5 levels have exceeded the NAAQS threshold at some monitoring locations in the project area." On page 4-82, the document also makes clear that "some air quality pollutants may present health issues for sensitive populations at levels below the NAAQS thresholds."

The Environmental Protection Agency clearly lays out the serious health problems related to particle pollution and the especially harmful effects of finer particles such as PM 2.5. The environmental impact study related to this project clearly lays out the likelihood that areas in this region will be in noncompliance with the Environmental Protection Agency's PM 2.5 standards. The north-south corridor environmental impact study provides clear demographic information detailing the number of people in the study area as well as the number and type of schools within the region.

The Final Environmental Impact Study again makes clear that SEWRPC and the DNR will not act in a proactive manner in order to avoid anticipated non-compliance with EPA standards.

1. As noted on p. 4-80 of the FEIS, WisDOT and FHWA will comply with whatever PM_{2.5} conformity requirements apply at that time.
2. According to U.S. EPA, the 2007 heavy-duty engine standards resulted in the introduction of new, highly effective control technologies for heavy-duty engines, beginning in 2007. Particulate matter emission levels are expected to be 90 percent lower on a per vehicle basis than 2000 standards levels due to the 2007 diesel engine and fuel program. On-road diesel trucks began to use Ultra Low Sulfur Diesel in the fall of 2006. As older heavy-duty diesel vehicles are replaced with newer less polluting vehicles, the heavy-duty diesel truck fleet emission rate is projected to decrease over 80 percent through the 2035 design year.

This finding within the Final Environmental Impact Statement continues to be unsettling as it sets aside the Milwaukee Public School district's previous comments on the draft EIS and again underscores the school district's stated concerns regarding freeway expansion as it relates to negative health impacts on Milwaukee's children. Milwaukee Public Schools stands opposed to freeway expansion within the City of Milwaukee.