



People *and* PAVEMENT

TRANSPORTATION DESIGN THAT **RESPECTS COMMUNITIES**

Michigan
Land Use
Institute

 MAKING SMART GROWTH A REALITY IN MICHIGAN

Communities at the Crossroads

Michigan needs transportation reform that respects people and their places

SOMETIMES ROADS ARE LIKE RIVERS. INCREASE THEIR FLOW TOO MUCH and they can drastically reshape their surroundings. Pump up the traffic on a road through a small town, for example, and all sorts of new gas stations, billboards, and fast food outlets spring up; soon, the road widens and sprawl, like a mudslide, buries the town's character, pride, and sense of place.

Then the landscape starts striking back. The driveways to the countless new strip malls chop up the roadside. Traffic congestion increases, accident rates soar, and drivers and pedestrians pay a heavy price in wasted time, frustration, injury, even death. Children, the elderly, and people with disabilities pay the highest price because they can no longer cross what's become a raging, five-lane torrent of high-speed traffic tearing through their hometown's heart.

Trading Taboos for Citizen Leadership
Until recently, any discussion of this glaring conflict among transportation, people, and local land use was taboo at the Michigan Department of Transportation. The department did not want the added responsibility of considering these impacts or the potential cost of coping with them.

But that is changing now that Governor Jennifer M. Granholm has appointed Gloria Jeff director of the Michigan Department of Transportation. The governor and Ms. Jeff believe that well-designed roads, bus and train lines, bicycle routes, and sidewalks should complement, not corrode, a community. A beautifully landscaped boulevard, for instance, can serve as a community's signature gateway. A bustling bus or train stop can spur urban revitalization and generate good business for nearby shops. Sidewalks and bicycle routes can raise property values and promote healthier, more sociable communities.



DOT Director Gloria Jeff

transportation project and the surrounding community or environment, however, requires patience, dialogue, careful planning, and openness to new ideas. This is why the state must allow local residents and communities to lead in designing new transportation projects.



Michigan Governor Jennifer M. Granholm

Context-sensitive Design

There is a new method for empowering citizens to marry transportation projects and land use plans that is gaining acceptance around the nation. It is called "context-sensitive design" or "context-sensitive solutions." The method replaces the longstanding, one-size-fits-all design approach. Instead of producing wide, flat, arrow-straight, high-speed, runway-like roads, the new, citizen-led process smoothly integrates transportation needs with the environment and the community's land use plans.

In other words, flexible design is about much more than landscaping or beautification. It's about respecting and enhancing downtowns, neighbor-

hoods, and the natural environment. It allows slower speeds, tighter curves, narrower lanes, and smaller shoulders in order to preserve the surroundings. It can eliminate a “through lane” to add on-street parking spaces, a bicycle lane, wide sidewalks, or a left-turn lane. It enhances rather than compromises safety while increasing mobility.

“Context-sensitive design (CSD) is an approach that places preservation of historic, scenic, natural environment, and other community values on an equal basis with mobility, safety and economics,” says Mary E. Peters, director of the Federal Highway Administration (FHWA). “We should seek to institutionalize the principles of CSD with the same commitment that drove the implementation of the Interstate Highway System.”

This new age in transportation design began on a large scale in the 1990s, when Congress passed landmark laws that encouraged landscape protection around new roads and other projects. The FHWA and states such as Maine, Minnesota, and Utah began experimenting with flexible design. Some states even passed their own laws embracing the new, citizen-led design process.

Michigan Transportation Policy Needs a Makeover

Michigan did not join the movement, however, even though it badly needs a context-sensitive design policy for its transportation projects, including its 10,000 miles of state and federal highways and 110,000 miles of local roads. Thus, communities continue to clamor for traffic solutions and mobility options but reject MDOT’s ready-made recipes.

In Detroit, for instance, the state’s proposed I-94 repair project has swelled into a \$1 billion mega-widening plan that would knock down 52 homes and businesses, while a proposed new border crossing to Canada could level part of Mexicantown, one of the city’s few rebounding communities.

In Grand Haven, the state proposes a 27-mile bypass right through Michigan’s most fertile farmland, including the region’s blueberry patch. In Traverse City and Petoskey, MDOT and local residents squared off for years over state highway bypass proposals that were certain to carve up active farms and the countryside.



Holland, Michigan’s downtown reflects key elements of context-sensitive design: It is walkable, people-friendly, and has narrow streets that help to calm traffic.

Citizens won those last two contests, but at great cost. In Petoskey, for example, the battle lasted nearly a generation and cost taxpayers millions of dollars. Such squandering of time and money confirms that, when it’s time to build, rebuild, or widen a state or local road, fresh thinking and flexibility must be the order of the day. Otherwise, taxpayers will continue to waste billions of dollars a year in time, fuel, delayed projects, missed redevelopment opportunities, degraded communities, lost open space, and crashes.

Michigan’s Road to Flexibility
There are good reasons to be hopeful. For example, the Michigan Transportation and Land Use Coalition, a collec-

tion of 40 progressive groups organized by the Michigan Land Use Institute and the Michigan Environmental Council in 1999, continues advocating for context-sensitive design. MDOT is now paying some attention to flexible design by conducting staff training programs and applying the approach in limited fashion in some communities. Governor Granholm’s bipartisan Michigan Land Use Leadership Council formally recommended in August 2003 that state and local road agencies adopt the new design and public input process. The Michigan House of Representatives in November 2003 passed a bill that defined and endorsed innovation in developing transportation projects and that now awaits Senate action. And in December Gov.

WHAT IS CONTEXT-SENSITIVE DESIGN?

“A collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. CSD is an approach that considers the total context within which a transportation improvement project will exist.”

— *Federal Highway Administration*

“Design excellence: Simultaneously advancing the objectives of safety, mobility, enhancement of the natural environment, and preservation of community values.”

— *Federal Highway Administration*

“‘Context-sensitive’ highway design...considers an area’s built and natural landscape; takes into account the environmental, scenic, aesthetic, historic, community, and preservation impacts of a road project; and provides access for other modes of transportation such as bicycles, pedestrians, and mass transit.”

— *Scenic America Web site*

Granholtz issued an executive order greatly increasing Michigan's commitment to context-sensitive solutions.

With other states already synchronizing their roads, bicycling and walking routes, and public transit corridors with their sense of community and land use plans, it's time for Michigan to become again the transportation design leader it was almost a century ago. After all,

Michigan can proudly claim many transportation "firsts," including the nation's first mile of concrete highway, in 1909; the nation's first painted center line, in 1911; and the nation's first three-color traffic signal, in 1919.

Fully implementing context-sensitive design in Michigan will produce and sustain great places and green spaces. The approximately 500 civic, business,

industry, and government leaders attending MDOT's December 2003 convention, *Transportation Summit: Michigan Partnerships*, voted to put it this way: "Regions won't achieve economic prosperity, environmental and cultural integrity, and social equity until we find regional solutions that integrate transportation, land use planning, and expenditures." ■

People and PAVEMENT

Learning From the Leaders

Other states find safety, affordability, traffic efficiency, and community preservation in citizen-led, context-sensitive design

HOW MANY TIMES HAVE YOU THOUGHT, "WELL, I'M NO traffic engineer, but..." as you shook your head over a dangerous stretch of road or unsightly, traffic-clogging clutter?

Motorists don't need transportation planning degrees to spot the places where traffic just doesn't move — or where "accidents" always occur, pedestrians scurry for their lives to cross a busy street, or wind and wet weather batter unsheltered folks waiting for a bus. It's as if planners sometimes utterly forget about people and places and focus only on pavement.

Putting People First

Now the federal government and a few states are putting people and places back into transportation planning. With context-sensitive design, *the public* takes charge and assures that community character and the natural environment count for more than cookie-cutter roads do.

Such "thinking beyond the pavement," as the process is frequently described, reflects a growing recognition that transportation projects should bend to fit the setting, not vice versa, and that good traffic flow is a means not unto itself but to other ends — improved social, job, business, cultural, and recreational opportunities. This marks a revolution for civil and traffic engineers, who

sometimes are more comfortable with handbooks than humans.

Designing for Safety and Success

Transportation departments in five states — Connecticut, Maryland, Kentucky, Minnesota, and Utah — formally launched the flexible design revolution in 1998 by joining a national pilot pro-

gram. Others, including New Jersey, Illinois, Florida, and Washington, also are developing transportation projects responsive to local scenic, aesthetic, historic, and environmental values and public transit, bicycling, and walking needs. In these places, citizen-led context-sensitive design provides affordable, effective, and *safer* methods of moving vehicles, bicycles, and people.

Michiganders sorely need the added safety. In 2002 traffic crashes killed nearly 1,300 people here, including about 300 bicyclists and pedestrians, and injured 112,000 others.

MICHIGAN'S LOSSES

Michigan's roadways took a heavy toll in traffic crashes in 2002, according to the state police:

Crashes:	395,515 reported traffic crashes
Deaths:	1,279 people killed, including 173 pedestrians & about 127 bicyclists
Injuries:	112,484 people injured, crippled, or maimed, including 2,232 pedestrians
Children:	Deaths from traffic accidents far outpaced those from the next two leading causes, fire and drowning
Total injuries:	One out of every 89 residents was hurt in a traffic accident
Economic cost:	The economic loss from traffic accidents amounted to \$9.6 billion



Lexington, Kentucky's "road diet" for Euclid Avenue reduced it from four to three lanes, added bike lanes, made sidewalks safer and the street itself safer and more attractive.

“Note that 10 percent of Michigan’s traffic fatalities are bicyclists. Now look at trip statistics to note that less than 1 percent of trips are by bike,” said Thom Peterson, a leader of the West Michigan Environmental Action Council and a long-time transportation choices activist. “It is not just the huge difference in vehicle weight between cars and bikes, but also, and perhaps primarily, the fact that the bicyclist is left completely out of consideration by designers, law enforcement officers, and the infamous ‘motoring public.’”

The Michigan State Police say the economic toll in 2002, including crash response and victim care, totaled nearly \$10 billion. Better road design could reduce these staggering statistics. For instance, converting some four-lane roads into divided boulevards in Michigan has lowered accident rates by 58 percent while moving considerably more traffic. Designing adequate space for bicyclists also spares injuries and saves lives.

Seppo Sillan, senior engineer at the Federal Highway Administration, sums up the challenge this way: “The problem in the near term is trying to convince all the chief executives of the various state DOTs that the context-sensitive design approach to project development is the only way they can get projects through in the future and that, in the long

run, it saves resources even though, on an individual project basis, they may have to spend more time on community involvement programs.”

Here are three success stories from other states that Michigan can learn from:

LEXINGTON, KENTUCKY: “Road diet” makes room for bicycles and pedestrians. Euclid Avenue in Lexington, Kentucky, serves local traffic and regional commuters and links the University of Kentucky campus with residential areas. To ease congestion mainly at intersections, the Kentucky Transportation Cabinet initially proposed adding another lane to the existing four-lane roadway. But the public objected, fearing that the higher speeds would endanger pedestrians. Fortunately, the state’s new context-sensitive design process called for public meetings to seek other solutions. Those sessions led not to an increase, but a *reduction*, in size to a three-lane roadway that offered safe places for bicyclists and pedestrians and enhanced life along the avenue. This “road diet,” as planners call it, has worked well in Lexington by reducing speeds and smoothing traffic flow. James Codell, secretary of the Kentucky Transportation Cabinet, tells his staff,

SENSITIVE IS SAFER

Innovative designs can make streets remarkably safer. Nationally, converting roads to boulevards, typically with landscaped medians, has:

- Lowered vehicle accidents by an average of **45 percent**.
- Reduced fatal accidents by up to **75 percent**.
- Decreased pedestrian accidents by at least **50 percent**.

IN MICHIGAN:

- Converting four-lane roads to boulevards has lowered accident rates by **58 percent**.
- Converting six-lane roads to boulevards has lowered accident rates by **50 percent**.

Inflexible is Dangerous

Studies show that extra-wide highways provide a false sense of driver security that promotes speeding, which results in more crashes and fatalities. More than 40,000 Americans die in traffic accidents every year. This is the leading cause of death for ages 4 to 33, far exceeding deaths from drugs and guns combined. According to the American Public Transportation Association, riding a bus is 91 times safer than driving; train travel is 15 times safer. Wider intersections are also dangerous. Improving traffic flow with right turn lanes and left turn lanes frequently makes them too wide to walk across before the traffic signal changes.

FLEXIBLE IS AFFORDABLE

The flexible design process often saves money by investing in a facility that increases the property value of homes and the commercial success of businesses. Across the nation public resistance to one-size-fits-all highway projects has spurred costly delays that could be avoided with a flexible, open-minded approach.

A Short (R)evolutionary History of Context-sensitive Design (CSD)

Pre-1991: States using federal funds must meet federal design standards for safety, high speeds, and room for next 20 years of projected traffic

1991: Federal government allows flexible design for historic and scenic routes not on National Highway System (NHS)

1995: Government approves CSD for use on National Highway System

1998: Federal government launches CSD pilot program with Connecticut, Kentucky, Maryland, Minnesota, and Utah

2002: Federal Highway Administration says CSD deserves same vigor as 1956 founding of Interstate highway system

NEW NATIONAL LAW IN THE MAKING

President George W. Bush endorses flexible design in his “SAFETEA” bill as part of 2004’s six-year renewal of federal transportation funding. The administration’s bill, however, fails to mandate flexible design for all federal projects and does not provide training funds or other financial incentives for states to adopt it.

OUR FLEXIBLE GLOBE

All around the world, context-sensitive streets are pleasing people. According to recent surveys:

- Mothers and children in the **Netherlands** consider their system of shared-use streets for driving and bicycling to be safer than car-only corridors.
- Residents of neighborhoods in **Israel** with multiple-use streets talk to each other more frequently than those that live elsewhere.
- Friendlier street designs in **Germany** generate a 20-percent increase in children’s play activity nearby.



A six-way intersection in Mount Rainier, Maryland, known locally as the “sea of asphalt,” stymied all attempts at commercial revitalization until it was replaced with a traffic roundabout.

“You should act as if the project is going through your own backyard.”

MOUNT RAINIER, MARYLAND: Art, roundabout transform once-dangerous intersection

Just outside of Washington D.C., Route 1 once broke up Mount Rainier’s downtown with four lanes of traffic and a six-way intersection. This “asphalt lake,” as local people called it, further marred the rundown commercial area. Residents and local officials wanted a more attractive-looking place with slower traffic, better bus access, and safer spaces for pedestrians and bicyclists. The city previously tried to revitalize the area, but nothing could work without addressing the fundamental barrier of Route 1. So the city asked the Maryland State Highway Administration to employ its context-sensitive design tools and lead a public visioning process. The solution was classic: Replacing the ugly, six-pronged intersection with an elegant traffic roundabout, which funnels one-way traffic around a central island to connecting streets and provides refuge for pedestrians trying to cross. Roundabouts slow down drivers, often without stopping them, and can add civic beauty. The project includes landscaped plazas, pedestrian-controlled crosswalk signals, bus shelters built in an early-20th-century design, and public

art, including two illuminated blue glass sculptures and bas-relief sculptures celebrating Mount Rainier’s ethnic diversity.

GOOD HARBOR BAY, MINNESOTA: Highway safety project preserves history, nature, and scenery

One stretch of Minnesota Highway 61 runs along the rocky, heavily forested edge of Lake Superior’s Good Harbor Bay. The scenic route, a vital trade corridor for northeastern Minnesota, had safety and congestion problems that bothered tourists, businesses, and local residents, including bicyclists and pedestrians. Erosion and road runoff were polluting a nearby creek and the bay; a railroad crossing further complicated matters. Employing context-sensitive design, the Minnesota Department of Transportation held public visioning and problem-solving forums that rendered a safe and aesthetic highway that flattered the communities it connects. The agency heeded calls to lower the road’s design speed, which allowed it to tighten curves and reroute the road away from a state park, a rock cliff, a rest stop, and the Lake Superior shore while enhancing scenic views from the road. The agency says that flexibility saved considerable money by reducing additional right-of-way purchases and avoiding costly blasting of rock walls. ■

Michigan Roads: Routes to Ruin or Revitalization?

Citizens pressure state to start matching its projects with community values

HERE'S A SHORT STORY WITH A LONG-LASTING LESSON: MDOT tried for 15 years to convince Petoskey area residents they needed a four-lane, divided highway bypass. When the small, northern city on Lake Michigan resisted, the state moved its plan out of the city and into the townships. But farmers and others living among the rolling hills also fought passionately against the idea and, in 2002, finally saved their homes, farms, and way of life.

The battle did some damage, though: It harmed the working relationship between local governments and state officials, left some roads still congested, and wasted \$4 million in useless state planning costs. The story still isn't over, but its latest chapter starts with a good opening line: In 2003 area governments launched a regionally controlled, state-funded study of their transportation and land use options.

The Times They Are A-changin'
The lesson? State transportation planning has sometimes been stuck in reverse, wearing down communities by stubbornly defending preconceived ideas. It took Petoskey's citizens 15 years of sustained effort to convince the state to let them drive the process them-

Widening Michigan Avenue to increase traffic flow through East Dearborn, Michigan, backfired. It increased accident rates, drove away pedestrians, and hurt businesses along the route.

selves by identifying their own traffic and growth problems and authoring their own preferred solutions.

Why have many Michigan transportation officials been so rigid? First,

their old-school training encourages them to cling to the most stringent federal design guidelines as if they are dictators, even when they're usually presented as a range of options. Second, engineers often work better with math and materials than with people and their opinions. Finally, there is a bunker mentality: Without question, a national backlash against pouring excessive pavement has gelled into a Smart Growth movement that is overwhelming these civil servants. In other words, as America rapidly leaves 60 years of bigger-is-better highway building behind, it's scaring the daylights out of planners who specialize in exactly that.

Who's Next?

With transportation planning in such flux, everyday citizens must take the lead. In Michigan, this includes the elderly, whose numbers will grow from 1.1 million, or 12 percent of the population, in 2000 to 1.7 million, or 17 percent, in 2020. It also includes approximately 500,000 residents with disabilities, whose ranks are rapidly growing due to aging. In addition, about 10 percent of Michigan households lack a motor vehicle and about 30 percent have just one car.

Fortunately, Michigan Governor Jennifer Granholm has a finger on the pulse of this social transformation. As part of her "Cool Cities" initiative, her administration in late 2003 convened a "Creating Cool" conference that linked urban redevelopment to culture, community, and commerce. The governor's



Millard Berry



Many residents and leaders in Detroit and Ferndale, Michigan, want to see this Woodward Avenue bridge of Eight Mile Road demolished because it is a blight-inducing eyesore.

labor and economic development director, David Hollister, used the standing-room-only affair to announce a new state initiative to develop “walkable” communities. The idea’s brilliance is in its simplicity: Let’s have places where you can walk, talk, shop, dine, wander, and so on, without clogging up the roads. Our nation’s truly cool cities also have great bus and light rail options, provide bicycle lanes and broad sidewalks, and generally promote getting out of the car. Michigan’s best examples are Ann Arbor and Grand

PUBLIC TRANSIT FLEXIBILITY

Public transit — bus and train — is an essential element for enhancing mobility and quality of life and lessening congestion. Road designs that don’t consider including public transit are inflexible. Even in severely public transit-impaired metro Detroit, buses had a significant impact in 2001:

- **Detroit public transportation saved the region \$121 million in averted congestion costs.**
- **Because of Detroit transit’s success, motorists’ commutes were reduced by an average of 1.5 hours each or 5.5 percent throughout the region.**
- **Metro Detroit transit (DDOT and SMART) carried about 51.6 million passengers.**

Rapids, where most of these elements are in ample supply and urban passenger rail service is under consideration.

Time for a Cool Change

For Michigan to shake off the rust and take up its own “cool” mantle, it simply must loosen up its stiff transportation policy. Here are a few of the many great opportunities for context-sensitive planning, including some hard-fought battles that have helped pave the way:

Alpena: In the mid-1990s, then-Governor John Engler promised to build 100 miles of new, four-lane freeway between Alpena and the Thumb and essentially abandon the existing, two-lane U.S. 23. Many residents revolted because northeast Michigan’s economy is so tied to open lands along Lake Huron. The U.S. Fish and Wildlife Service estimated the project would have caused the largest wetlands loss in the state’s history. Finally, in 2001, the Federal Highway Administration canceled the idea and recommended upgrading the existing highway where needed.

Acme Township: M-72, which connects I-75 to the Grand Traverse region, divides the rural community just east of Traverse City. MDOT wants to widen it to four and five lanes, contrary to Acme’s master plan, which calls for developing a downtown with less traffic and more transportation choices. Three local governments and a regional transportation and land use planning body passed resolutions challenging the state to be flexible and study a boulevard design that, complete with amenities for bicyclists and

pedestrians, would be an attractive gateway into Traverse City. But, currently, MDOT is only considering a scaled-down boulevard concept that covers just short stretches of the route.

Traverse City: In 1987, the Grand Traverse County Road Commission proposed a four-lane county road and bridge through the Boardman River valley, nature’s pipeline for 30 percent of the fresh water that flows into Grand Traverse Bay. In addition, in 1996, the state proposed a \$300 million, 30-mile bypass using the same river crossing. Criticism by residents intent on protecting their primary recreational lands sunk the highway bypass in 2001. But county commissioners continue to push their road and bridge idea hard, even though the project would plow through the center of a fabulous, newly expanded riverside park. Anglers, paddlers, hikers, Smart Growth advocates, and former Michigan First Lady Helen Milliken united to sue the county to stop the project. Even Traverse City’s city commission opposes it. In late 2003, four state and federal environmental agencies formally objected to the ruinous project; one agency is expressing interest in the citizen-fashioned “Smart Roads” alternative.

Grand Haven: MDOT has proposed building a 27-mile, billion-dollar bypass around this west Michigan coastal community and straight through the region’s blueberry patch and the state’s most productive agricultural land. Some local governments agreed, but farmers, environmentalists, and three townships

FROM "THE TIMES THEY ARE A-CHANGIN'"

*Come mothers and fathers throughout the land
And don't criticize what you can't understand.
Your sons and your daughters are beyond
your command.*

Your old road is rapidly agin'.

*Please get out of the new one if you can't lend
your hand*

For the times they are a-changin'.

— Bob Dylan, 1964

formed a coalition that hotly opposes the idea. The groups are advancing a road modernization plan for U.S. 31 and a close-in bypass that uses existing county roads. As part of her fix-it-first road program, Gov. Granholm in 2003 deferred the project indefinitely.

East Dearborn: In the mid-1970s MDOT eliminated on-street parking along Michigan Avenue (U.S. 12) in downtown East Dearborn to help move cars more efficiently. Speeds along this major highway increased and customers vanished from the stores along the route. No wonder: Cars knocked rocks and other road debris into display windows; accidents sent vehicles careening into local storefronts; salt splashing from speeding vehicles killed trees and stained sidewalks. In the mid-1990s, local businesses, property owners, and community groups pleaded for a six-month, trial restoration of on-street parking. MDOT's director publicly predicted a "potential for gridlock and a 30-percent increase in crashes." Instead, the temporary restoration of on-street parking, which reduced the busy avenue from six lanes to four, *decreased* accidents by 30 percent without worsening congestion. Today, traffic speeds have slowed, pedestrians are safer, and storeowners are happier.

Ferndale: The gray, hulking, badly decaying, three-story intersection at Woodward Avenue and Eight Mile Road, along the Detroit-Ferndale border, is one of the ugliest structures in the metropolitan area. Grime and street crime give it an even more foreboding look. When built 50 years ago, it represented state-

of-the-art traffic engineering. Today, nearby expressways have siphoned away much of the traffic that originally justified all of that concrete and steel, but MDOT wants to spend millions of dollars to rebuild the entire interchange. Ferndale's leaders have a better idea:

Scrap the bridge and create an inviting gateway between the suburb and Detroit that is a traditional intersection free of billboards; full of new commercial activity; friendly to cars, bicycles, and pedestrians; and host to a regional transit hub. MDOT will decide by July 2004 whether to rebuild or remove the bridge. "Michigan and its MDOT have the opportunity to use this as an example to begin to shift state transportation policies in favor of Smart Growth, context-sensitive design, and mass transit," said Ferndale City Manager Tom Barwin.

Oak Park: Three decades ago the Detroit suburb's neighborhoods faced potentially fatal vivisection by a proposed eight-lane expressway, I-696. Twenty years of contentious negotiations produced two unusually broad, richly landscaped pedestrian overpasses that represent one of Michigan's most visible examples of flexible highway design: Elevated parks, complete with lighted pedestrian and bicycle paths, seamlessly unite the neighborhoods on both sides of the expressway.

But it took a highly organized, sustained push by a cohesive Orthodox Jewish community, which wanted to remain whole by facilitating pedestrian movement across the freeway to and from shopping facilities, schools, houses of worship, and a community center.

Detroit: The state is studying the badly needed repair and redesign of seven miles of I-94 in the city, between I-96 and Conner. The project calls for widening the six-lane road to seven or eight lanes *in each direction*, including service drives. While MDOT has used some context-sensitive tools to narrow some lanes, advocates still rue the \$1 billion price tag, the overall scale of the project, and the elimination of public transit options. The proposal would level 34 homes, 15 businesses, three nonprofit facilities, and displace about 130 residents.

Southwest Detroit: Detroit's southwest side is gaining population even as the rest of the city continues to lose people. The community is bouncing back from the longtime dominance of heavy industry and transportation facilities, including the truck-laden Ambassador Bridge and a truck-to-train transfer yard. But, even as Mexicantown's Vernor Avenue blooms with neat brick shops and restaurants catering to local clientele, MDOT is considering a huge expansion of both the bridge and the yard, which would knock down dozens of homes and businesses and erase the charm that's been pushing its way back through all of the concrete. ■

In Ann Arbor, Michigan, the intersection of bus, pedestrian, and bicycle traffic offers a classic example of people- and community-friendly transportation design.



MLUI/ Kimberli Bindschael

Accelerating Flexible Design in Michigan

Key steps include commitment, citizen-led process, new laws, and transportation design palette

WHAT MAKES THE DIFFERENCE BETWEEN STATES THAT renew their communities with context-sensitive transportation design and those that don't? **Commitment!** Without it, the process devolves into landscaping schemes that merely paper over poorly conceived projects.

Michigan and many other states still hide behind federal design guidelines and produce the fastest, widest, and flattest plans. The federal “bible” of road design has a fairly obtuse name — the American Association of State Highway and Transportation Officials’ *A Policy on Geometric Design of Highways and Streets* — and, historically, a green cover. So, it’s universally called the “Green Book.” While widely used as an excuse for one-size-fits-all roads, the manual actually provides inherent flexibility by offering a range of recommended widths, sizes, and scales. And, if that’s not enough, in 1997 the Federal Highway Administration published its own guide called *Flexibility in Highway Design*.

For Michigan and its cities and counties to fully embrace flexible design requires risk-taking — not with safety, cost, or performance, but with a project outcome that may be entirely different from the transportation agency’s original preference. A proposed highway-widening project might instead become a “road-diet” project that reduces the number of lanes by converting some of them into, say, left-turn or bus-only lanes and space for bicycling, parking, and pedestrians. This transforms a plan to accommodate more cars and nothing else into one that

accommodates everybody’s needs. In flexible design parlance, that’s a commitment to excellence.

To get there, Michigan’s transportation and land use planners must put the public in the driver’s seat, provide citizens with tools to fix their own problems, and go along for an educational ride. They must treasure other people’s hometowns and open spaces as they do their own. Once planners come to understand a community’s character and values by listening to its residents, they will be able to help fashion transportation projects that truly mesh with the local setting.

Michigan must take these critical steps to achieve truly proactive, context-sensitive design policy:

1. Define context-sensitive design and fully commit to it “Folks, crafting a 21st-century transportation system entails much more than concrete, asphalt, bricks, and mortar,” Governor Jennifer M. Granholm said in a December 2003 address to the Michigan Department of Transportation’s statewide *Transportation Summit: Michigan Partnerships*. “It’s vastly more complex than building highways and mass transit systems. It’s about building and connecting communities. It’s about creating livelihoods, economic

stability, and reaching out beyond our borders and comfort zones.” That’s a good anecdotal definition of flexible design. Then in December 2003 the governor backed up her words when she issued an executive order requiring a greatly stepped-up state and local commitment to context-sensitive design. Proof will be in the implementation.

2. Develop a citizen-led transportation planning process Michigan’s citizens and transportation officials must work closely together to determine each community’s values, transportation and land use problems, and context-sensitive solutions. Rather than presenting pre-packaged ideas, the state must put everything on the table: The purpose of the project, its location and ownership, its components, and its scale. To be successful this process would:

- Regularly use a so-called “charrette” format, which is an intense, interactive public planning process that occurs over several consecutive days. Well-done charrettes solicit comments from residents, provide them with tools, and put them in charge.
- Avoid overwhelming residents and local officials with technical issues by providing communities with a free “public advocate” for each project. The qualified professional (usually a traffic engineer) would aid and represent the local community, uphold local land use plans, and negotiate with transportation department professionals throughout the process. By doing this, MDOT would put everyone on an equal footing, not in opposite corners, and would convey an enormous sense of trust in local people.

3. Amend state laws inhibiting context-sensitive design Michigan’s primary transportation law — Public Act 51 — requires that new highways be at least four lanes wide and designed to accommodate 20-year traffic projections. While the law does allow MDOT and a city or village to agree to fewer lanes, that’s no sure thing when the state holds most of the money and prefers wide highways. Likewise, 20-year projections are too prescriptive and speculative. Some leading transportation planners contend that traffic expands to fill the available road space and that a lack of alternatives causes most conges-

M-TLC

Since 1999, the Michigan Land Use Institute and the Michigan Environmental Council's statewide transportation coalition has focused on flexible design. Here are two of the **Michigan Transportation & Land Use Coalition's** goals related to flexible design and transportation choices:

- **Integrate Statewide Transportation and Land Use:** Direct the state to create a comprehensive transportation and land use plan for Michigan before developing the next MDOT road and bridge construction plan. Numerous state agencies should play a part, including the state departments of transportation, natural resources, environmental quality, agriculture, and education and the state family independence agency.
- **Preserve Railroad Corridors:** Prohibit planning and public funding of roads on railroad rights-of-way. Railroad corridors should be preserved for recreation and public transit use.
- **Retain all state-owned rail corridors.**
- **Promote public purchase of abandoned, privately owned rail corridors.**

tion. These required minimums for number of lanes and years of accommodation must be reduced or removed to allow full flexibility to flourish. Otherwise, MDOT and residents won't have the room to reach creative new conclusions. In addition, Michigan must frequently revisit and revise its transportation funding formula so that funds can follow a community's agreed-upon needs regardless of who — local, state, or federal — owns the road or other transportation facility. The state also should pass a moratorium on new billboards to clean up the generic appearance they foster.

4. **Adopt design guidelines that respect local land use**
Like some other states, Michigan should expand its transportation design choices beyond the Green Book. For instance, lowering acceptable design speeds so that roads can bend to suit the landscape is crucial. The state should employ a wide range of citizen and interest group involvement to develop and adopt a new

set of transportation project design criteria that puts it in step with 21st-century transportation and land use planning. The Institute of Transportation Engineers' and the Congress for New Urbanism's forthcoming context-sensitive development guidelines, expected by the end of 2004, could prove a useful template. In developing project alternatives, Michigan should also determine whether or not each proposal is consistent with local comprehensive land use plans. If it is not consistent, MDOT should seek advice from the locality to determine how to make it so.

5. Consider all alternatives to meet transportation needs

To achieve the best transportation solutions possible, Michigan also needs to be flexible about the types of transportation projects it implements. Too often, the default solution is to choose new or wider highways and ignore public transit and other alternatives that would be less harmful to the community and environment. The tool for changing this approach and achieving true flexibility already exists: The Michigan Environmental Protection Act (MEPA). Under MEPA, whenever an agency proposes a project that would "pollute, impair, or destroy" the environment, the agency must demonstrate that there is no feasible and prudent alternative. This approach should be adopted into Michigan transportation law, so that any time an agency proposes a transportation project that would significantly impact the environmental, scenic, his-

toric, or community resources of an area, that agency must objectively consider feasible and prudent alternatives and be able to justify their rejection which would, ideally, occur only rarely.

6. Launch demonstration projects

Because seeing is often believing, Michigan should pursue demonstration projects that illustrate flexible design's best principles: Broad public participation, excellent performance, enhanced safety, and superb aesthetic appeal. Dispersing the projects geographically would introduce all areas of the state to the benefits of flexible design. Projects could be chosen for their distinct profiles and locales: Big city, small town, and countryside, with public transit, bicycle lanes, and pedestrian spaces. ■

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WEB SITES FOR CSD AND RELATED INFO:

- **Michigan DOT:** www.michigan.gov/mdot
- **Michigan Executive Order on flexible design:** http://www.michigan.gov/gov/0,1607,7-168-21975_22515-83562—,00.html
- **Michigan Land Use Institute (these fact sheets on-line and more):** www.mlui.org
- **Michigan Land Use Leadership Council:** www.michiganlanduse.org/
- **Michigan Traffic Crash Statistics:** www.michigan.gov/msp/0,1607,7-123-1593_3504-17157—,00.html
- **Michigan Transportation Facts & Figures:** http://www.michigan.gov/mdot/0,1607,7-151-9622_11045_12717—,00.html
- **Bicycle and pedestrian design:** www.fhwa.dot.gov/environment/bikeped/Design.htm
- **California DOT:** www.dot.ca.gov/hq/oppd/context/main-streets-flexibility-in-design.pdf
- **Federal Highway Administration:** www.fhwa.dot.gov/csd/index.htm
- **Project for Public Spaces:** www.pps.org/CSS/cssonline.htm
- **Scenic America:** www.scenic.org/roads.htm
- **University of Kentucky:** www.ktc.uky.edu/
- **Washington State DOT:** www.wsdot.wa.gov/biz/csd/

WHAT LEADERS AND EXPERTS ARE SAYING ABOUT THE NEW AMERICAN REVOLUTION IN TRANSPORTATION DESIGN

"Crafting a 21st-century transportation system entails much more than concrete, asphalt, bricks, and mortar. It's vastly more complicated than building highways and mass transit systems. It's about building and connecting communities."

— **Michigan Governor Jennifer M. Granholm**

"Context-sensitive design is an approach that places preservation of historic, scenic, natural environment, and other community values on an equal basis with mobility, safety, and economics."

— **Mary E. Peters, Director, Federal Highway Administration**

"Context-sensitive highway design considers an area's built and natural landscapes; takes into account the environmental, scenic, aesthetic, historic, community, and preservation impacts of a road project; and provides access for other modes of transportation such as bicycles, pedestrians, and mass transit."

— **Scenic America**

*"Your old road is rapidly agin'.
Please get out of the new one if you can't lend your hand,
For the times they are a-changin'".*

— **Bob Dylan**



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