TRANSPORTATION ELEMENT

Appendix C-5

The WisDOT Connector
Informing Wisconsin on key transportation issues
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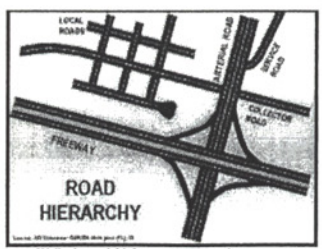
Access Management – balancing traffic flow and highway access

Access Management: A process that provides or manages access to land development, while preserving the flow of traffic on the surrounding road system in terms of safety, capacity and speed.

It can be said that highways provide two - sometimes competing - functions. Highways must allow traffic to move smoothly and efficiently through a given area. At the same time, highways must accommodate local traffic and provide access to adjacent property.

However, allowing too many access points along a stretch of highway can create problems for both local and through traffic. That's because access points are also conflict points. Every vehicle that slows to turn off a main highway or enters a main highway from a side street, creates potential hazards for motor vehicle occupants, bikers and pedestrians.

So how do we balance these two competing highway functions? "Access Management" refers to the general concept of balancing the interests of traffic flow and traffic access along our state highway system. This edition of the WisDOT Connector will focus on some of the "driving forces" behind Access Management efforts and will highlight some of the tools that are being utilized to enhance traffic flow, roadway access, and public safety.



Well-planned highway systems enhance safety and traffic flow.

Cooperation and planning are keys

Highways have different classifications and functions. For example, freeways have very limited access (interchanges) and are designed to move large volumes of traffic quickly and efficiently. A freeway could connect with a county highway, that in turn connects with local streets to access homes, jobs and schools. It's vital that these three highway systems and governmental units – state, county and local – plan and work together to provide the most efficient transportation system possible.

Roadway access that is not well planned often results in congestion, capacity loss, and decreased safety. However, when access locations are planned in conjunction with land use changes and development, a highway can generally accommodate higher traffic volumes without compromising safe and efficient traffic flow.

Access Management efforts can ease traffic congestion and eliminate conflict points that jeopardize safety. At the same time, proper planning can boost economic development and community appearance by facilitating more efficient access to adjacent land development.

Traffic growth far outpacing highway expansion

It's no secret that the demands on Wisconsin's highway system continue to grow. For example, between 1982 and 1997, total vehicle miles of travel on the State Highway System increased 60%, while the system's total lane mileage increased by only 5%. Meanwhile, over the last 20 years, the number of licensed

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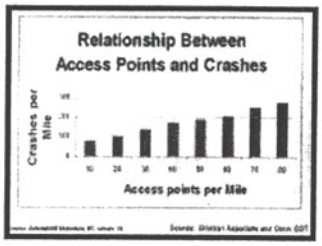
drivers in Wisconsin has jumped 26%. The bottom line is that the minimal growth in the size of the State Highway System is lagging far behind the dramatic increases in both drivers and traffic.

Highway expansion, while costly and time consuming, is sometimes the only solution to address significant concerns regarding traffic congestion and motorist safety. Still, one way to ease the need for highway expansion is through maximizing the safe use of our existing highway system. Access Management represents a concerted effort to incorporate planning and design features to make the system work as safely and efficiently as possible.

It should come as no great surprise that when highway access points are allowed to increase, so do the number of traffic crashes. Studies throughout the country have shown that highways with limited or managed access are significantly safer than other roadways.



As highway access points increase, so do the number of traffic crashes

Access Management goals:

- Reduce traffic crashes and injuries
- Improve traffic flow/maximize efficiency of existing roadways
- Avoid the need for costly and disruptive highway expansion or bypasses
- Plan development with safe and efficient access
- Coordinate state, regional and local plans

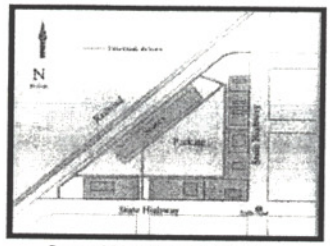
Access Management benefits

- Less stop and go traffic
- Shorter commute times
- Promotes efficient delivery of business goods and services
- Reduced fuel consumption and pollution
- Preserves public investment in the roadway system

Tools of Access Management

Successful Access Management efforts involve employing a comprehensive set of strategies or "tools" in order to manage traffic flow and accommodate access to property. The common thread is cooperative planning between state and local governments, developers and the general public. Some of these "tools" include:

Connectivity – providing access between adjacent properties in order to minimize the need for drivers to use the highway to reach their destination.

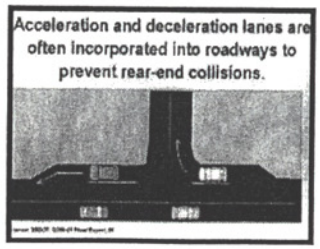


Commercial "connectivity" can mean enhancing traffic circulation within a development to minimize access to surrounding streets.

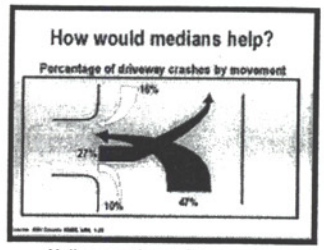
> "While Access Management encourages planning and communication between state and local officials, it can also benefit the local economy by enhancing the safety, aesthetics and capacity of our highway system."
>
> Bonnie Tripoli, WisDOT
> Access Management coordinator

Joint access – sharing driveways so that several properties can be served by one driveway. Joint driveways can create more room for parking stalls and also serve to reduce driver confusion. Have you ever been waiting to turn from a driveway and seen a vehicle coming towards you with its signal light on, but been confused about whether they're turning into your driveway, the driveway before you, or the driveway after you? That is an indication of too many closely spaced driveways.

Turn lanes – refers to acceleration and deceleration lanes that are often incorporated into roadways to prevent rear-end collisions by providing traffic a separate lane to turn off or merge with traffic.



Raised medians – serve to physically separate opposing traffic and can significantly reduce motor vehicle crashes by reducing conflict maneuvers. Most driveway crashes – up to 75% - are a result of motorists turning left into, or out of a driveway.



Medians can reduce conflict maneuvers such as left turns.

Business and motorist reaction to Access Management

Experience has shown that in general, businesses and motorists have a favorable view of Access Management efforts. For example, people are more likely to patronize a business if they know they can get into and out of a parking lot with relative ease. Shoppers are more likely to return if they can accomplish several errands in a given area without going onto the highway each time. Well-planned development with well thought out traffic access minimizes driveways, maximizes green space, and enhances a community's overall appearance.

An Iowa study showed that 80% of businesses reported neither loss of sales, nor any customer complaints about access to their businesses after an Access Management project. The remaining 20% percent of businesses were mostly highly vehicle dependent such as gas stations and drive-through businesses.

The same Iowa study showed that 90% of motorists surveyed had a favorable opinion of improvements related to Access Management. Most drivers felt the new roadways were safer and more efficient.

Conclusion

Efforts related to Access Management have been taking place for at least 50 years, so the concept is not necessarily new. Yet with development increasing in Wisconsin and throughout the nation, it's becoming increasingly important for state and local governments to work together in planning development that preserves capacity of the highway system and enhances safety for the motorists who use it. ◆◆◆

Access Management success stories

Grand Avenue before

Grand Avenue after

Grand Avenue - Wausau

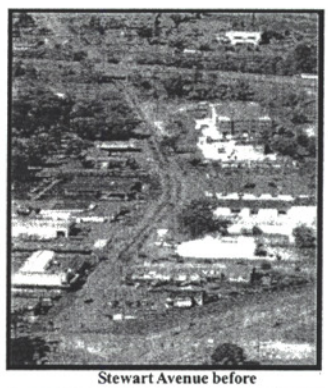
One example of a successful Access Management project can be found in Wisconsin's heartland - the Grand Avenue project (Business US 51) in the cities of Schofield and Wausau in Marathon County. The $4.2 million project received WisDOT's "Best Urban Design by Consultant" Award in 1999 in recognition of work done by Becher-Hoppe Associates, Inc. of Wausau.

Accident rates along Grand Avenue were between three and five times the state average. The primary type of crash involved rear end collisions, followed by angle collisions. Many of these crashes were attributed to the lack of left or right turn lanes on Grand Avenue and the high density of access points (approximately 40 per mile) along the stretch.

An Access Management plan resulted in 114 access points and 16 side street intersections being decreased to 52 access points and 14 intersecting side streets (54% decrease). The result: following project completion, total annual crashes decreased 37%. An average of 112 crashes occurred along the segment annually between 1990 and 1996. In 1998, 71 crashes were recorded.

Along with an extensive public outreach effort, the project involved reconstruction of approximately 1.4 miles of the four-lane urban section including turn lanes at intersections, wider travel lanes, non-mountable medians, limited access points, plus bicycle and pedestrian accommodations. Two signalized intersections were upgraded while two other signalized intersections were added. Some 10,000 feet of sanitary sewer and water mains were replaced and/or relocated. Construction was staged to keep the road open to traffic during construction. ◆◆◆

Public outreach is a key component of successful Access Management efforts



Stewart Avenue before

West Stewart Avenue - Wausau

This project, also designed by Becher-Hoppe Associates, Inc. of Wausau, combined Access Management components with an extensive public outreach process in converting a two-lane rural section to a four-lane urban section. Originally, the entire West Stewart Avenue corridor was virtually one long series of access points. The Access Management plan resulted in approximately 17 access points within the half-mile corridor to serve 27 residential and commercial properties. Five intersecting side streets were closed using cul-de-sacs.

The public involvement process included creation of a mailing list consisting of area business and residential property owners, renters, city, state and local officials, along with bicycle, environmental and other special interest groups. The mailing list was used to invite the public to an informational meeting in May of 1998. At the meeting, some 100 citizens learned more about the draft project scope and a nine-member Citizen's/Business Advisory Committee was created to help develop final recommendations. Over the next 17 weeks, the committee held nine meetings. The audience at each meeting ranged between 20 and 60 persons. In addition, over 25 on-site meetings were held with individual property owners to discuss their concerns.

Transportation needs identified included creation of an Access Management plan to decrease crashes, aesthetic features, accommodating bicycle and pedestrian needs and supporting economic development along the corridor. All concerned parties agreed upon the final compromise project design.

The design included: left and right turn lanes, mountable and non-mountable medians, pavement marking and signing, curb and gutter, bicycle and pedestrian accommodations through a 54-inch curb/gutter section and eight-foot wide sidewalk, storm sewer, three signalized intersections, and placement of utilities underground. Thanks to the cooperative partnership between Becher-Hoppe Associates, Inc., the city of Wausau and WisDOT, the majority of the $1.9 million project was completed in the year 2000. ◆◆◆

Stewart Avenue after

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In the next issue: WisDOT's new Web site

After months of planning and preparation, WisDOT recently unveiled its new Web site: www.dot.wisconsin.gov. The new site was designed with the Web visitor in mind - to deliver information and services quickly, consistently and efficiently. In the next issue of the WisDOT Connector, we'll take an in-depth look at the new Web site and how it can serve as a useful "link" in connecting our customers with the transportation information they need.

How to contact us

The ***WisDOT Connector*** is a quarterly publication of the Wisconsin Department of Transportation. It is intended to inform the public about key transportation issues and how they affect transportation in Wisconsin.

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Trans 233 – the impact of land divisions on the highway system

Trans 233 is a revised version of a Wisconsin Administrative Rule that has been in effect since 1956. The recently revised rule establishes requirements for all land divisions occurring along the state highway system and defines restrictions that must be followed when developing lands along state highways. The Trans 233 rule can be viewed as the statutory authority under which WisDOT works with individuals and local communities to plan development and highway access in ways that enhance traffic flow and roadway safety.

The rule, in effect since February 1, 1999, impacts landowners who wish to divide or combine land parcels adjacent to the state highway system. WisDOT staff can conduct an initial "conceptual review" that takes place as soon as a landowner has a general idea on how they wish to divide their land. This allows developers to receive input on how and where the safest location is for property to access a highway before expending funds on engineering or other items. Once a more formal land division is submitted, WisDOT has 20 days to review it. The fee charged to help cover administrative costs associated with this review is currently $110.

The rule is designed to evaluate a land division and its impacts upon a highway to protect public safety and the public's investment in the highway system. In general, direct access to the state highway system is not permitted from newly created lots. The Trans 233 evaluation also takes into account: how a development could impact drainage; setback provisions that impact property abutting the state highway; "vision corners" at street and driveway intersections; and potential noise-related issues. In cases where rule provisions cannot be met, landowners may request a special exception.

If a land division is not reviewed and recorded in accordance with the rule, landowners will not receive a driveway or any other permit relating to the highway. At the time of a highway improvement project, WisDOT and other government units may determine if a land division occurred on or after February 1, 1999 (when the rule took effect). If the land division does not conform to the rule's requirements, landowners will be ineligible for compensation for any structures or improvements located within the setback area and acquired by WisDOT. Also, compensation for other property acquired may be lower than expected, and landowners could be liable for drainage.

More information on the Trans 233 rule can be found on the recently re-designed WisDOT Web site at www.dot.wisconsin.gov/business/rules/trans233.htm. ◆◆◆

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