



WHEELS IN MOTION

Street redesign brings new life to Milwaukee suburb

By Jason Sweet



The heyday of North Avenue was a *long* time ago.

Or at least that's the way it seemed up until recently. For decades, far too many forlorn storefronts sat amidst the street's 1920s architecture. They signified a stagnant business district in the "East Tosa" area of Wauwatosa, Wisconsin, an inner suburb of Milwaukee.

According to Bill Porter, City director of public works, many in the area

thought the street itself impeded economic development, that its "chicane" design moved traffic too quickly. In theory a traffic calming strategy, a chicane design creates a serpentine flow of motorists by using left-turn lanes and curb bump-outs. Ironically, it has the potential to increase traffic speeds because there are no enforced stopping mechanisms.

If a street's design can negatively affect an area's economy, that also

suggests a design can have a positive effect. So what would such a street look like?

Answering that question would become the soul of North Avenue's redesign.

Growing a plan

When this 16-block portion of North Avenue, between 60th and 76th streets, was due for resurfacing in summer 2014, the street had already been getting a lot of attention.

WHAT IS THE PURPOSE OF A STREET?

In the second half of the 20th century the design of city streets reflected the motor vehicle's dominance in American society, says John Davis, Ayres Associates manager of traffic engineering.

But that's changing.

"Today, the challenge is to have a design that's based on balancing the needs of all street users, not just motorists, but pedestrians, bicyclists, and transit users," Davis said. This idea has come to be called the "complete streets" movement, and it's changed the way streets are being designed around the country, including the \$1.5 million North Avenue reconstruction project in Wauwatosa, Wisconsin.

In addition to designated areas for safe and convenient bus stops and pick-ups, the redesigned 16-block portion of North Avenue includes new traffic signals with flashing yellow arrows and video detection on all approaches. Signal lights greatly alter the character of the street; the previous design lacked enforced stoppage, which according to some business owners encouraged increased auto speeds.

Particularly important to the many stakeholders in

Frustrated with the local economy's resulting drag on home values, a group of residents had formed the East Tosa Alliance and secured a \$40,000 Community Development Block Grant. This led to a coalition of City staff, public officials, residents, and area businesses working with urban planning consultant RDG. The result was the East Tosa North Avenue Plan, a comprehensive analysis of the area and a detailed set of strategies to revitalize it.

The plan emphasized creating a more bicycle- and pedestrian-friendly street – but this was more than a noble pursuit. Alderman Joel Tilleson of

North Avenue's redesign was making the area friendlier for pedestrians and bicyclists. Ayres traffic engineers responded by incorporating features like the following into the street's redesign:

- Red colored crosswalks installed at 64th Street and North Avenue and 72nd Street and North Avenue. For added safety, the crosswalks also contain raised medians – pedestrian "islands" – in the center of the roadway. Along with helping draw motorists' attention to pedestrians, the red crosswalks serve as gateway treatments, helping to slow traffic by informing motorists that they're entering the business district.
- Solar-powered, rectangular rapid flashing beacons at the intersection of 73rd Street and North Avenue provide a safer crossing path for children walking to Roosevelt Elementary School. The push-button activated beacons flash yellow, alerting motorists to crossing pedestrians.
- Along with green "bike boxes" at the intersection of North Avenue and 68th Street (see page 18), the 16-block area includes dedicated continuous bike lanes that are highly visible with their green color and large white bicycle symbols.

Wauwatosa's 5th District explained that suburban style developments and large surface parking lots were not feasible options.

"We had to figure out creative ways to make this area accessible to those not only in the immediate surrounding neighborhood but also those within a mile or two that could get here by means other than a car," Tilleson said. In other words, people coming on foot or bicycle would be crucial to the street's commercial viability.

Ayres Associates assisted the City with traffic engineering services, evaluating and further developing a

plan that would, in the words of Ayres senior traffic engineer Ken Voigt, "transform the atmosphere of the corridor and make it the kind of place people would want to come back to." Feasibility analyses were conducted for various potential modifications to the street, including the bold concept of incorporating continuous – green colored – on-street bicycle lanes along the 16-block area.

A vision with many voices

Porter said the design planning involved listening to a variety of voices – the public, area businesses, the East Tosa Alliance, elected officials, and City staff.

"There were definitely differences of opinion," Porter said. "But thanks to calm, professional discussion and clear presentations of options by Ayres, we were able to make good decisions."

One of those voices was Ed Haydin's, a local resident and, at the time, an Alliance member. He's also an architect with a specialty in urban design and economic development.

"I've sat through numerous engineering-focused technical discussions, which can be very

dry and hard to follow, he said. "But Ayres really took the time to explain the likely outcome for each potential street modification. And they also made some important recommendations."

Meanwhile, as support for a street redesign grew and the vision for it evolved into feasible plans, the City opted for a comprehensive street redesign/resurfacing project for summer 2014. Because of special events in the area, construction couldn't begin until July. This

created a tight timeline; the City also wanted major portions of the project completed before the school year began in September. Because of workload challenges, the City looked to Ayres for additional assistance. "We had to work as efficiently as possible to coordinate the new design elements and the grade fittings with the street's resurfacing – and utility coordination was also a big part of the project," said Kristine Anderson of Ayres, who served as project supervisor. Ultimately, the tight timeframe was met. The completed

THE PAST MEETS THE FUTURE: AN ENGINEER COMES HOME AGAIN

When Ken Voigt walks along North Avenue in Wauwatosa, Wisconsin, it's a literal stroll down memory lane. He grew up just two blocks off the avenue. On Saturday mornings as a kid, Voigt and his father would walk to the nearby bakery for "hard rolls and doughnuts," he recalled. Then there was the five-and-dime where he bought his baseball cards and the small grocery store where his mother worked. As a teenager, Voigt and his high school sweetheart would eat at Jake's Fine Dining Restaurant for special occasions.

These establishments on North Avenue may have long vanished, but in their place now stands a reinvigorated business district in "East Tosa," especially following the recent reconstruction of the corridor.

Working with the City of Wauwatosa and numerous other project stakeholders, Voigt led the traffic engineering design portion of the project for Ayres Associates.

"Traffic engineering has the power to shape the character of a neighborhood," Voigt said. And he ought to know. As a senior traffic engineer with more than 48 years of experience, he has helped engineer the character of hundreds of neighborhoods.

But the East Tosa project was uniquely rewarding for Voigt.



"To go back to where you grew up and help make a positive impact on the residents and businesses in the community – it's been a career highlight," he said.

Voigt now lives 6 miles from the old neighborhood, though he's a frequent visitor. He still attends church in Wauwatosa, and on occasion he and his wife will stop at a spot on North Avenue called "Rocket Baby Bakery." The hip eatery, with its artisan breads and elegant pastries, bears little resemblance to Voigt's boyhood bakery. But still, the area inevitably conjures memories – for both of them. That high school sweetheart from so long ago has been Voigt's wife for 49 years.

– Jason Sweet

BIKE BOXES AIM TO IMPROVE SAFETY

As the number of bicycle users continues to grow throughout the country, many cities are opting to use bike boxes on roadways. These designated areas may be simply outlined in white, but similar to bike lanes, the use of colored surfaces (green in particular) is becoming more common. At signalized intersections, bike boxes are placed at the head of a motor vehicle traffic lane and allow bicyclists to get ahead of traffic queuing at a red light.

The value of a bike box lies primarily in the red light signal phase. It's then that bicyclists can ride to the front of the line of automobiles and position themselves appropriately and prominently – either to make a left turn or to continue straight. For the left turn, bicyclists can now get from a right-side bike lane over to a left-turn lane more easily – and safely. For bicyclists going straight, bike boxes can help prevent "right-hook" auto/bicycle collisions at the start of the green light phase when automobiles may be turning right.

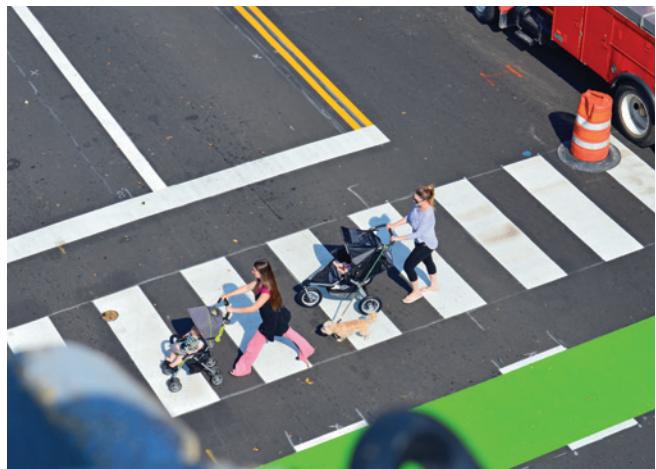
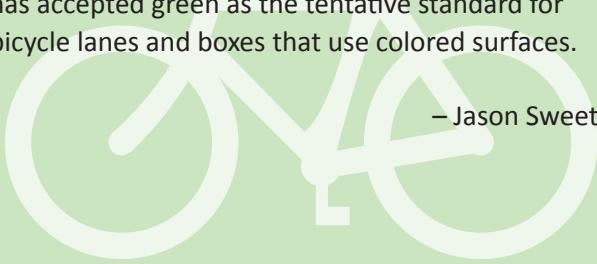
Bike boxes use advance stop bars, which motorists need to honor. This allows bicyclists room to safely positions themselves in front of waiting traffic.

Why green? Other colors have been used – blue and red for example – but green is fast becoming the standard. Federal transportation officials voiced concern about bike areas using colors already designated for other purposes.

Studies have suggested that green remains prominent even under nighttime street lighting. Green is also considered more resistant to fading.

Ken Voigt, an Ayres Associates senior traffic engineer, said the Federal Highway Administration has accepted green as the tentative standard for bicycle lanes and boxes that use colored surfaces.

— Jason Sweet



project culminated on an early October Saturday with a neighborhood celebration of the redesigned street, complete with a ribbon cutting and a community bicycle ride.

Healthy again?

David Schlabowske is deputy director of the Wisconsin Bike Fed, one of the country's largest statewide bicycle organizations. Schlabowske also writes a weekly blog, "Bike Czar," at UrbanMilwaukee.com. He finds himself talking and writing about North Avenue's redesign a lot. In fact, the street's makeover has had a direct effect on Schlabowske, whose home is just blocks from North Avenue. He's fond of saying he fills his wallet in Milwaukee, where he works, and empties it in East Tosa, where he plays, which wasn't always the case. "But there are just so many places to go there now," he said.

Schlabowske is referring to the revitalized business district along North Avenue. He won't go so far as to say that the redesign of North Avenue is the only reason for its renaissance; however, as a professional bicycle advocate for more than 11 years, Schlabowske has studied streets throughout Wisconsin and the country, which has revealed some important consistencies: "Lots of people on bicycles and lots of people walking – those are two indicators of a healthy street, which also means a healthy neighborhood and business district. That's exactly the case in East Tosa."

Looking back on the project, Voigt said, "The various stakeholders impressed me with how they kept a focus on what the final result could be. I'm sure there were businesses and residents inconvenienced by the reconstruction. But they were able to understand and grasp the vision. I'm glad we could help make that vision real." ■