

By Rich Sampson

Minnesota's Twin Cities – Minneapolis and St. Paul – always have had a legacy of great named trains operating through their vicinity. Trains with names like the Great Northern's *Empire Builder*, the Milwaukee Road's *Olympian Hiawatha* and the Chicago Great Western's *Legionnaire* evoke majesty and lore. Today, although all but the *Empire Builder* – now operated by Amtrak – have faded from memory, a train with an iconic name is helping to reclaim the region's proud passenger rail tradition: Northstar Commuter Rail.

The product of more than a decade of planning and community partnerships, and a by-product of growing congestion on the region's highways, Northstar is part of a burgeoning passenger rail environment underway in the Twin Cities. Already paired with Hiawatha light-rail service near the Minnesota Twins' downtown Target Field ballpark in Minneapolis, the signature blue-and-gold Northstar trains are setting the stage for a family of passenger rail options, from new light-rail and commuter rail lines to streetcars, along with new intercity and high-speed rail routes.

### The Long March to Rail

In May 1997, a consortium of 30 Minnesota counties, cities and townships came together to form the Northstar Corridor Development Authority (NCDA). The impetus for the new entity was a collective desire in communities along the Interstate 94 and U.S. Highway 10 corridor to improve mobility options for travel

# Minnesota's Northstar: A Guiding Light for a Regional Rail Network



between the urban core of the Twin Cities and communities to its northwest. Traffic congestion on both thoroughfares was worsening, and town and neighborhoods were suffering from over-reliance on road-first lifestyles. Moreover, the corridor was already served by an active and well-maintained freight line – one that also hosts Amtrak’s *Empire Builder* – where communities are already familiar with the presence of a busy rail route.

Led by the work of the NCDA with assistance from the Minnesota Department of Transportation, station locations were studied and negotiations began with the BNSF Railroad, which owns the former Northern Pacific line between downtown Minneapolis and St. Cloud. The project found an early champion in former Governor Jesse Ventura, who rallied support in the State Legislature. And although his successor – former Governor Tim Pawlenty – determined the effort should be scaled-back from St. Cloud to Big Lake due to cost and ridership concerns, the state approved \$55 million in investment in 2005 to complete design work for the project. Ultimately, more than \$317 in federal and state investment was secured to construct stations, add sidings and signals and purchase rolling stock, among other elements. BNSF would operate the trains under a \$107.5 million contract for commuter rail trains to access the line.

As part of the project – which was ultimately dubbed Northstar, not only a reference to the region’s geographic location, but the area’s former National Hockey League club of the same name – the Hiawatha light-rail line

was extended to a new station at Target Field where Hiawatha and Northstar trains would offer intermodal connections. The Hiawatha line first opened in 2004 and today serves more than 30,000 daily riders. A new light-rail route – the Central Corridor – is currently under construction to reach from the Target Field station to St. Paul’s Union Depot (for more on Union Depot, see RAIL #29 – ed), connecting the Twin Cities by rail transit service for the first time in more than a half-century. The Minnesota Twins contributed private investment to support the Hiawatha line extension and the multimodal rail station at Target Field.

On November 16, 2009, the distinctive blue-and-gold Northstar trainsets – comprised of Motive Power MPXpress MP36 locomotives and Bombardier BiLevel railcars – began service on the 40-mile route between Target Field and Big Lake, with four intermediate stations. Due to BNSF’s frequent freight traffic on the line – which hosts more than 60 passenger and freight trains a day – six roundtrips are offered on weekdays, with one reverse-commute trip in each direction. Three additional trains operate on weekends, along with special event service for Twins games. More than 2,600 passengers ride Northstar trains each weekday.

“Building on the success of Hiawatha, Northstar is the second step in the creation of a transit system for the 21st century,” says Peter McLaughlin, Chair of the Counties Transit Improvement Board and a Hennepin County Commissioner, both members of the



NCDA. “The Target Field Station is the beginning of the new Minneapolis Transit Hub that will connect light rail, commuter rail and high speed rail serving the region and the state of Minnesota.”

### The Interchange: Raising Transit’s Profile in Minneapolis

The joining of Northstar commuter rail and Hiawatha light-rail trains at the Target Field station marked a resurgence of passenger rail in Minneapolis not seen since the halcyon days of intercity passenger rail and local streetcar and interurban routes. And while the connections between the Hiawatha and Northstar lines are convenient and accessible for riders, local leaders envisioned a more substantial downtown presence for their rail transit network. Currently, a single platform hosts Northstar trains surrounded by surface-level parking lots and overpasses of Fourth



The Interchange will connect three light-rail lines with multiple commuter rail routes in a vibrant public setting.

and Fifth streets – the latter of which carries Hiawatha Line trains – produces a less-than-desirable outpost atmosphere for rail passengers, especially during the region’s frigid winters. Connections with nearby bus routes are also challenging.

In response, a new, intermodal transit facility that will foster economic development and serve as a central community gathering place is rapidly emerging under the leadership of Hennepin County. Bounded by the city’s North Loop and Warehouse districts, The Interchange project is targeted for completion in

2014, following a formal groundbreaking on July 9. The \$80 million facility will accommodate not only the projected influx of passengers arriving on Central Corridor light-rail trains beginning in 2014 – expected to number tens of thousands daily – but also future light-rail, commuter rail, intercity and high-speed rail lines, serving as a bookend to the redevelopment of Saint Paul’s Union Depot, which is currently underway. Bus traffic will also receive dedicated boarding locations and more efficient routes through the facility.

But the project boasts more than just an en-

hanced location to make connections between transit routes. Key elements such as The Great Lawn and The Cascade will prioritize outdoor public space that captures the inherent human energy generated by a thriving transportation nexus. The former will be a green public plaza to accommodate pre-game festivities before Twins games, outdoor concerts and events and an ice rink for winter, while the latter a grand staircase connecting the Great Lawn with the rail platforms and forms a natural amphitheater. Additionally, mindful of the challenges of public spaces in cold-weather climates, the residual heat produced by the Hennepin Energy Recovery Center – an electric power plant powered by combusting waste – will be used to easily warm sidewalks and stairways.

The combination of bustling transit center – hosting 500 daily train and 1,800 bus trips – and vibrant public spaces is expected to attract mixed-use development nearby. The facility itself will include space for retail, restaurants and entertainment establishments, while the surrounding neighborhood will include residential, commercial and retail opportunities. A mix of investment streams is supporting the overall project, including \$39.1 million from Hennepin County, \$17.2 million in state-supported bonds, \$10.5 million in federal investment, 1.5 million from the Minnesota Ballpark Authority, along with \$1 million in local funding.

“From a transit perspective, the Interchange will provide connectivity that will be necessary as we build out the Green Line, the



Bottineau Corridor, and other transitways,” says Brian Lamb, General Manager for Metro Transit, the region’s public transit agency, which oversees the Hiawatha and Northstar lines as well as local bus service. “This will be the connecting piece of the puzzle for the West Metro.”

“The Interchange will be the nexus of transit and culture in Minneapolis, a high-quality series of places for residents and sports fans to connect, circulate, and gather,” adds Peter Cavaluzzi FAIA, Principal at EE&K Architects, which is designing The Interchange along with Knutson Construction. “We are proud to be able to work so closely with Hennepin County, Knutson Construction, and the rest of the dynamic team to create a world-class destination for residents and visitors alike.”

### The First Piece of a Regional Network

The successful deployment of Northstar commuter rail along with the Hiawatha light-rail line have set the stage for the Twin Cities region to become one of the most dynamic rail networks in the years and decades ahead. A family of commuter rail, light rail, intercity and high-speed rail projects are all under various stages of planning to further unite the area, both within the area and beyond throughout the Midwest. New commuter rail routes – based on the state’s Commuter Rail Plan adopted in 2000 – would stretch beyond Minneapolis and Saint Paul to reach north, northeast, southeast and southwest along existing, underutilized and abandoned rail

rights-of-way. The Red Rock Corridor would reach beyond Saint Paul along the Mississippi River to serve Hastings and potentially Red Wing, while the Gateway Corridor would head east from Saint Paul to Eau Claire. Meanwhile, the Rush Line Corridor would span Saint Paul to Hinckley to the north, and its counterpart from Minneapolis would connect Bethel with the Twin Cities. The Norwood Young America would serve communities to the southwest of Minneapolis.

At the same time, new light-rail routes are also under consideration to broaden the reach of the region's rail transit network. In addition to the under-construction Central Corridor, the Southwest Corridor would continue Central Corridor trains southwest from The Interchange through communities including St. Louis Park, Hopkins and Minnetonka before arriving in Eden Prairie. The Southwest Corridor is expected to begin operations in 2016, connecting 18 total stations and moving more than 28,000 daily riders. Elsewhere, the Bottineau Boulevard Transitway would also originate at The Interchange and travel northwest along the County Road 81 corridor, although a bus rapid transit (BRT) option may be selected for that route. Likewise, the proposed Orange and Red lines would utilize BRT options to connect Lakeville with the existing Hiawatha line and The Interchange, respectively.

Beyond the commuter rail and light-rail projects on the drawing board are a series of longer intercity routes and high-speed rail projects that could position the Twin Cities

## Northern Lights Express

Among the plethora of passenger rail options under consideration in the Twin Cities region is a vision to connect Minneapolis and St. Paul with the Twin Ports communities on the shores of Lake Superior, namely Duluth and Superior, Wisc. That effort could someday become the *Northern Lights Express*, which would re-introduce scheduled intercity rail service on the 155-mile corridor for the first time since 1985, when Amtrak discontinued its version of the *Northstar*.

After an initial proposal emerged to restore rail service in February 2000, planning work began in earnest in 2007 with the creation of the Minneapolis-Duluth/Superior Passenger Rail Alliance – a joint powers board made up of regional rail authorities, eight counties in Minnesota and Wisconsin, representatives of Minneapolis and Duluth and the Mille Lacs Band of Ojibwe – that would oversee the development of the project. A feasibility study was undertaken that year, followed by an environmental assessment and preliminary engineering supported by federal, state and local funding. The Alliance also included the participation of BNSF Railroad – the owner of the rail line the service would utilize – from the outset of the planning process.

In 2010, the Minnesota Comprehensive Freight and Passenger Rail Plan formally recommended the inclusion of the *Northern Lights Express* as part of the statewide rail system, and the U.S. Department of Transportation provided \$5 million in investment in May 2011 to advance engineering work on the project, as well as approving the preferred route that September. Currently, the Alliance is continuing engineering and design work, including mapping, specifying equipment requirements, modeling ridership and cost estimates and studying facilities and stations.

The Alliance is targeting a 2015 initiation of service, with up to eight daily roundtrips operating at speeds up to 110 miles per hour once upgrades are completed on the BNSF infrastructure. Northern Lights Express trains would travel between The Interchange in downtown Minneapolis and the historic 1892 Duluth Depot, home to the Lake Superior Railroad Museum and the North Shore Scenic Railroad, which operates in the summer to Two Harbors. The project is expected to generate more than 13,000 jobs and fuel more than \$2 billion in rail-oriented development along the route.



at the heart of a multi-faceted regional rail network. The *Northern Lights Express* (see box on previous page – ed) would utilize the same rail infrastructure as the proposed Bethel Line and beyond, to also connect with the Rush Line Corridor at Hinckley and ultimately linking Duluth and Superior, Wisc. State leaders also envision linking the Twin Cities with Minnesota’s second-largest city in Rochester via the Rochester Rail Link, although that service would require the construction of new rail infrastructure. The route could also serve as an initial segment of a high-speed rail line to Chicago, Ill., via northern Iowa. Other lines could expand intercity passenger rail options to Mankato on the Minnesota Valley Line, Winnipeg, Manitoba via Fargo, N.D., Sioux Falls, S.D. through Willmar and Kansas City on a line through Albert Lea, Iowa. These projects would all benefit from the escalation of rail activity at The Interchange and Saint Paul Union Depot as well as a robust commuter rail system in the region.

“Northstar, I hope, is the first of many passenger rail services within the state and crossing state lines to connect Minnesotans with the rest of the nation,” said Khani Sahebjam, former MnDOT Deputy Commissioner and Chief Engineer.

“Enthusiasm is higher than ever, markedly improved over previous years,” says McLaughlin. “Northstar ridership is up week-days. We’ve seen enormous ridership on the Hiawatha line. There’s development along that corridor despite the recession. Now people are saying it’s amazing along the Central Corridor that will connect downtown Minneapolis

and downtown St. Paul along University and Washington Avenues. You do one line, people see the benefits and soon, you’re creating a system.”

## A Moving Region

The initial rail transit network in the Twin Cities established by the Northstar and Hiawatha lines are but a beginning fraction of a much larger fabric of passenger rail options destined for the region. In their respective corridors, the routes have established a foothold for rail transit to become ingrained in the identity of the region. Like their iconic namesakes portend, the Hiawatha and Northstar services may serve as the dawning glimpses of a new vision for Minnesota’s mobility, as more pieces of the rail infrastructure materialize, from The Interchange and Union Depot to the Southwest Corridor and Northern Lights Express.

“We’ve connected downtown Minneapolis to the Mall of America, to the airport, to the VA hospital” says McLaughlin. “We’ll connect to Eden Prairie, to Hopkins. We’ll go to St. Paul, to the university and ultimately get you to St. Cloud. The region is moving. Perceptions are moving.”

Northstar commuter trains terminating at the Target Field station (top right) are currently surrounded by parking lots and overpasses. That will all change with The Interchange (below right), with its vibrant public plaza, mixed-use development and easy connections to light-rail service. In this rendering, the commuter rail platforms are visible in the upper right side of the image.

