

MASS TRANSIT

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GOING
VERTICAL:
The Upside of
Multi-Level
Transit Facilities

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➔ PLUS

CONSIDERING THE RAIL
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SAFETY CULTURE

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MASS TRANSIT



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ONLINE EXCLUSIVES

Zero-Emission buses track healthy early growth, hotspots emerge in West, Midwest, Florida

► America's zero-emission bus fleet is on the move and ZEBs are being adopted at a healthy pace in all corners of the U.S.

➔ MassTransitmag.com/21110719

Three connector technologies building the future of rail

► Modern connector technologies are helping to make a seamless rail experience between Point A and Point B easier to achieve.

➔ MassTransitmag.com/21112105

Keolis North America set to expand Boston HQ; establish greater regional controls

► Keolis believes this business model will spur collaboration, innovation and, ultimately, growth.

➔ MassTransitmag.com/21110371

Moovel's loyalty and rewards program aims to connect communities through incentivized transit use

► The company's Loyalty and Rewards Merchant Solutions is designed to benefit riders, transit providers and local business communities.

➔ MassTransitmag.com/21106661

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Lane Departure Warning

which alerts if the vehicle leaves the driving lane without use of the turn signal.

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Making connections

Not all links are obvious, but they can still bring value.

I am a big fan of Malcolm Gladwell. If you don't recognize his name, you know his books: *The Tipping Point*, *Outliers*, *Blink*, among many others including his new book, *Talking to Strangers*. It's about how we communicate, and I've read the first page at least half a dozen times but have gone no further. This is not a comment on the book, or its theme, but more so on my schedule and inability to stay awake past 10 p.m.

Fans and critics alike point to Gladwell's ability to find links among the seemingly simple tasks we perform every day and how those tasks can result in different outcomes. Detractors of his method of research and analysis point out that correlation does not always equal causation. Those who subscribe to his work view the conclusions he draws as an unveiling of a breadcrumb trail leading to a better understanding of behavior. That may be an oversimplification of critics and an over inflation of fans; the main point is that he looks for connections. As we all should.

In the transit world, this can be literal. We want riders to find their way to and through our networks. The concept of integrated mobility is that a rider only needs to know where their starting and end points are located and the connections - all options - will be provided. It can also be figurative. Reading this magazine is way to connect to the industry through news, quality feature articles and insightful best practices commentary.

Mass Transit works to provide connections through information both in our print editions and online. You'll notice we have a new recurring column appearing from Chairman of the National Railroad Construction and Maintenance Association (NRC) Mike Choat in this

issue. If the NRC is new to you, the association's stated primary objective is to "advance the mutual interests of its members and the railroad and rail transit construction industry." I've been involved with the association for many years and am honored to serve as a board observer, as well as on several committees.

The American Public Transportation Association notes that, since 1997, there are 17 additional commuter/hybrid rail systems and 20 additional light-rail/streetcar systems. That number is expected to grow, particularly on the West Coast. With all this rail construction occurring and in anticipation of future rail maintenance that will be needed, the addition of the NRC to the pages of this magazine may be a helpful and useful connection to make.

**In the transit world,
this can be literal.
We want riders to
find their way to and
through our networks.**



A handwritten signature in black ink that reads "Mischa Wanek-Libman".

Mischa Wanek-Libman, Editor

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*—Charles Smith, Maintenance Manager
Jackson (TN) Transit Authority*

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PASSENGERS BOARD the Confederation Line.

Confederation Line opens in Ottawa

Capping decades of planning, construction, frustrating delays and a few controversies, Line 1, the Confederation Line, opened Sept. 14 in Ottawa, Ontario. The C\$2.13-billion (US\$1.6 billion) light-rail project runs along a 12.5-kilometer (7.7-mile) route with 13 stations, including four underground, and connects Tunney's Pasture Station in the west to Blair Station in the east. The city of Ottawa says the O-Train Confederation Line is a "world-class transit system" with trains arriving every five minutes or less. The line is expected to carry up to 10,700 passengers per hour in each direction during weekday peak periods, which would make it one of the busiest light-rail lines in North America. Construction on the line began in 2013 by Rideau Transit Group (RTG) partners, which was awarded the contract to design, build and finance the project, and to maintain it for the next 30 years.

➔ MassTransitmag.com/21105657

Chicago's bus priority zone program gets financial boost

► Chicago Mayor Lori E. Lightfoot said the Bus Priority Zone Program, a joint initiative between the Chicago Transit Authority (CTA) and Chicago Department of Transportation (CDOT), would see a quadrupling of its budget from \$5 million to \$20 million. The program is designed to improve bus travel times and make service more reliable on seven core routes. The Bus Priority Zone Program was announced this spring and CDOT is set to begin work on the first element in a series of projects along 79th Street, which is served by the #79 bus route, one of the city's highest ridership routes. Among the improvements being made are two dedicated red CTA bus-only

lanes to help move buses through the corridor more quickly and new overhead signage, technologies and queue jump signals to improve traffic light timing to allow buses to move through an intersection ahead of regular traffic. Project work includes, but is not limited to, the installation of designated bus-only lanes, new pavement markings, street-level and overhead signage, optimizing of bus stop locations, as well as other operational and safety improvements such as curb extensions and pedestrian refuge islands.

➔ MassTransitmag.com/21111108

Tempe Streetcar secures \$75-million grant through CIG program

► Valley Metro has been awarded a



A RENDERING of what the Tempe Streetcar will look like once in operation.

\$75-million grant from the Federal Transit Administration (FTA) through the Capital Investment Grants (CIG) Program for the Tempe Streetcar project. Tempe Streetcar will serve one of the highest transit ridership centers in the region and serve 14 stops along three miles. In an announcement for the grant, FTA said the transit infrastructure project will improve mobility and transit service through the historic downtown Tempe area, which is the city's government and financial center, linking riders to Arizona State University and Valley Metro's existing light-rail system. The Tempe Streetcar is scheduled to open in 2021 and will connect downtown Tempe, Arizona State University and the emerging employment corridor of Rio Salado Parkway, which connects existing light rail serving Phoenix, Mesa and Phoenix Sky Harbor International Airport. The total project cost is \$192.4 million and includes a request of \$75 million in federal transit infrastructure grants, as well as regional funding through Prop 400 and local private-public partnerships.

➔ MassTransitmag.com/21107449



CITY, STATE, federal and transit officials helped break ground on Phase One of the RPM Project.

CTA begins Phase One of \$2.1-billion Red and Purple Modernization Project

► The Chicago Transit Authority (CTA) and the city of Chicago officially began

work on the largest reconstruction project in the agency's history, the Red and Purple Modernization (RPM) Project Phase One, with a groundbreaking ceremony on Oct. 2. The project will modernize and replace rail structures and stations that have been in service for a century along CTA's busiest line, the Red Line, that serves more than 30 percent of the agency's rail customers. CTA's Red Line provides more than 200,000 rides on average each weekday and more than 70 million rides a year, serving some of the most densely populated neighborhoods in the nation. The entire RPM project will impact a 9.6-mile stretch of track and will be built in phases. The \$2.1-billion Phase One consists of two main components: the Red-Purple Bypass Project and the Lawrence to Bryn Mawr Modernization Project. All work on RPM Phase One will be completed in 2025 with the Red-Purple Bypass project set to be completed by the end of 2021.

➔ [MassTransitmag.com/21108807](https://www.masstransitmag.com/21108807)

NYCT sees bus ridership bump following Select Bus Service improvements on new 14th Street

► The Select Bus Service (SBS) improvements on the M14A and D routes, which are augmented by New York City Department of Transportation's new 14th Street Transit and Truck Priority lanes, have resulted in an SBS weekend ridership increase of 37 percent. The Metropolitan Transportation Authority says with the October implementation of the 14th Street busway, weekday ridership has increased by 17 percent to 31,000 daily riders. Comparing September 2018 to September 2019, ridership on the M14 route has increased by 37 percent on Saturdays and 29 percent on Sundays. Weekday ridership jumped 15 percent during the same period, from approximately 26,350 to 30,195. Since the 14th Street Transit and Truck Priority lanes were implemented on Oct. 2, 2019, ridership increased again to approximately 31,000.

➔ [MassTransitmag.com/21111319](https://www.masstransitmag.com/21111319)



NOVA BUS entered the zero-emission bus market with its LFSe+.

Nova Bus introduces LFSe+ at APTA TRANSform

► Nova Bus has introduced its new fully electric bus, the LFSe+, at the American Public Transportation Association's (APTA) TRANSform Conference in New York City. The LFSe+ was built on the Nova Bus LFS platform and integrates the traction motor and power electronics from BAE Systems. LFSe+ has a total battery capacity of 594 kWh.

➔ [MassTransitmag.com/21110268](https://www.masstransitmag.com/21110268)

Continued ►

People in the News



Patrick Sullivan

Centre Area Transportation Authority (CATA)

CATA selected Patrick Sullivan as the new director of information technology where he will oversee all activities of the Information Technology Department. He's responsible for directing, planning and scheduling the development, production and administrative processing of CATA's technology systems and computer operations, both short- and long-term.

➔ [MassTransitmag.com/21106225](https://www.masstransitmag.com/21106225)



Erin Rogers

Omnitrans

Deputy General Manager Erin Rogers has been appointed as interim CEO and general manager.

Rogers brings three decades of experience in the transit industry. She previously worked at the Orange County Transportation Authority where she held the position of assistant general manager and was responsible for oversight and management of all fixed route bus and paratransit operations.

➔ [MassTransitmag.com/21109037](https://www.masstransitmag.com/21109037)



Rob Ruzinsky

Greater Dayton Regional Transit Authority (RTA)

Bob Ruzinsky was named deputy chief executive officer for the Greater Dayton RTA. He will be responsible for all RTA day-to-day departmental functions and his primary responsibility will be implementing RTA's mission, goals and policies through daily operations and strategic planning. He will also lead the effort to develop a new strategic plan in the coming months.

➔ [MassTransitmag.com/21107011](https://www.masstransitmag.com/21107011)



Sophia Mohr

Central Ohio Transit Authority (COTA)

Sophia Mohr has become COTA's first Chief Innovation Officer. Mohr previously worked in the private sector where she served as the vice president of owner experience design and strategy at NetJets where she designed and developed strategies to improve the customer experience for NetJets' clients. Mohr has a bachelor's and a master's degree from The Ohio State University.

➔ [MassTransitmag.com/21095525](https://www.masstransitmag.com/21095525)



Michael Jones

Bay Area Rapid Transit (BART)

Michael Jones will serve as BART's deputy general manager.

Jones has served as the assistant general manager of administration where he was responsible for leading human resources, procurement, labor relations among others. He also launched the BART Leadership Academy and Mid-Managers Training Programs to help current employees prepare to assume upper management positions.

➔ [MassTransitmag.com/21109948](https://www.masstransitmag.com/21109948)

PEOPLE & PLACES

MORE NEWS AT A GLANCE

► The Foothill Gold Line Construction Authority signed the Alignment Design-Build Contract with the joint venture team of Kiewit-Parsons for the 12.3-mile, six-station Glendora to Montclair segment of the Foothill Gold Line Light Rail Project.

➔ MassTransitmag.com/21109466

► Mobilinx Hurontario General Partnership has been awarded a C\$4.6 billion (US\$3.51 billion) contract from Infrastructure Ontario and Metrolinx to design, build, finance, operate and maintain the Hurontario Light Rail Transit line for a 30-year term.

➔ MassTransitmag.com/21111226

► Valley Metro has awarded Motor Coach Industries (MCI) a five-year contract for up to 50 MCI D45 CRT LE and D45 CRT Commuter Rapid Transit coaches.

➔ MassTransitmag.com/21110951

► New Jersey (NJ) Transit awarded a \$40-million contract to Walsh Construction Company for Phase One of the Long Slip Fill and Rail Enhancement project, which will allow NJ Transit to operate train service longer leading into, and recover more quickly from, storm events.

➔ MassTransitmag.com/21110786

People in the News



Joe Costello

Dallas Area Rapid Transit (DART)

Joe Costello has been promoted to chief financial officer at DART where he will be responsible for providing the agency's strategic and financial planning among other duties. His previous experience includes transit and private sector work.

➔ MassTransitmag.com/21095035



Ibrahima Toure

Transdev

Transdev North America promoted Ibrahima Toure to regional vice president for its Southwest Region. Toure joined Transdev in 2004 as a bus operator in Denver, Colo., and worked his way to become the area vice president for the Southwest region in 2018.

➔ MassTransitmag.com/21107258



William Trainer

Grande West Transportation Group Inc.

Grande West Transportation Group said company founder William Trainer will resume the role, duties and responsibilities of CEO. He had previously stepped down from the CEO position in February 2018 for personal reasons.

➔ MassTransitmag.com/21094478

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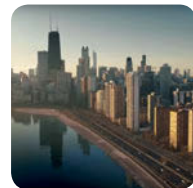
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Looking forward:

2020 NRC Conference and NRC-REMSA Exhibition
and the NRC's ongoing efforts on FRA Part 243



Mike Choat
Chairman, National
Railroad Construction &
Maintenance Association



THANKSGIVING IS FAST APPROACHING and I hope you'll be spending the upcoming holidays with family and loved ones. And don't forget safety first—not only on the job, but in your personal and work life, as well.

October has been a stellar month for the National Railroad Construction and Maintenance Association (NRC). The NRC Board of Directors had a very successful Q3 board meeting in Jupiter, Fla., where we discussed the upcoming conference and other programs to better serve our members.

Our NRC 2020 Conference is January 5-8 in San Diego, Calif., at the Hotel Del Coronado. The conference is already lining up to be another great one, with Keith Creel, president and CEO of Canadian Pacific, being the featured speaker at the opening session. Also speaking will be senior engineering and procurement executives from Class 1 railroads, major rail transit agencies and commuter railroads such as Metra, Metrolink, Virgin


ing off the latest technology and equipment in the rail supply world, making it a compelling exhibition. Your participation will allow you to keep up with the latest information concerning what's happening in our industry.

This year's agenda for fun and relaxation will include golf, whale watching and a great spouse program. You would be hard pressed to find a better way to start off the year. For more information on the conference, registration, lodging, sponsorships and exhibiting, please visit <http://www.nrcma.org/2020conference>.

In other news, the NRC filed a joint petition with the ASLRRRA to amend 49 C.F.R Part 243 by delaying certain implementation dates for applicable short lines and contractors for an additional two years or suspending such dates all together. This petition aims to reduce unnecessary regulatory burdens for our members, and to give our members greater regulatory flexibility in how they implement training requirements.

Federal Railroad Administration's (FRA) Rob Castiglione will be presenting at the NRC 2020 Conference on Sunday in the general session and doing a more in-depth breakout session regarding the most up-to-date information on complying with FRA's Part 243 rule. This impacts all rail contractors and vital information will be presented at both events -- you won't want to miss it.

Additionally, the NRC has produced and received approval from the FRA for 10 separate model programs. These model programs are available to NRC member companies free of charge. For more info, visit <http://nrcma.org/243modeltemplates> and login to the NRC website to access the templates.

I hope everyone has a safe and enjoyable Thanksgiving with their families and I look forward to seeing you in California in early January. 

Your participation [in the NRC-REMSA Exhibition] will allow you to keep up with the latest information concerning what's happening in our industry.

Train USA; and a California commuter rail panel with ACE, Capitol Corridor and Caltrain, and short line freight rail holding companies. These executives will come armed with the latest information on their capital program plans for 2020 and the opportunities that will be available for NRC member contractors and suppliers.

REMSA is continuing to work hard putting together the finishing touches to the NRC-REMSA Exhibition, where there will be more than 150 booths show-

 Read more from the NRC at
MassTransitmag.com/21111575

NRC Annual Conference & NRC-REMSA Exhibition

January 5-8, 2020 | San Diego, CA

Kick Off 2020 on the Right Track
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Conference Highlights

- 2020 engineering & capital spending plans (Class I, short line and commuter rail/transit)
- Noteworthy national rail project overviews
- Railroad Signals & Communications update
- Educational seminars
- Safety updates & best practices
- Infrastructure outlook and legislation
- Awards

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nrcma.org/2020conference





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OMNITRANS' TURN signals are audible and come equipped with a strobe light that flashes in conjunction with the announcement.

A robust

SAFETY CULTURE

enhances an entire system

By creating solutions, using consistent messaging and implementing technology and equipment improvements, Omnitrans maintains high safety standards.

By **Megan Perrero**,
assistant editor

OMNITRANS HAS BEEN FOCUSED on enhancing the safety and security of both its daily operations and emergency readiness and has recently been recognized for these efforts.

The agency's initiatives touch on almost every aspect of the system, from providing improvements to coach operator training and implementing new safety features on buses, to creating an emergency response communications system and piloting automated collision avoidance technology. These proactive initiatives provide increased safety and security to employees, passengers and pedestrians alike.

But in order to create a strong safety culture, Omnitrans doesn't stop at introducing more programs and initiatives. The agency works to develop a safety culture beyond technology with constant and consistent communication and by rewarding those who achieve safety milestones. Thanks to these efforts, the agency sees reduced preventable accidents and, in turn, reduced costs. According to the American Public Transportation Agency (APTA),

Omnitrans now averages approximately nine million revenue miles annually with about 121,000 miles between preventable accidents.

Award-winning safety and security programs

This past spring, Omnitrans was awarded APTA's 2019 Bus Safety and Security Excellence Awards for developing an amateur radio service and implementing several technology-driven programs that enhanced its safety culture.

Omnitrans' service area is in a region prone to earthquakes, wildfires and flash flooding, and it noted a possible lack of communication with first responders during an emergency if the cell towers and land lines were to go down. The agency developed the Inland Valley Emergency Communications Service (IVECS) to ensure the constant ability to communicate with first responders. IVECS is an amateur (ham) radio service which has grown from eight members in 2015 to 22 members in 2019.

IVECS members, which include community entities such as cities, local police departments, school districts, hospitals

and public transit agencies, gather for a weekly net exercise on Thursday mornings to test the network's capabilities. This also gives members a chance to share news and updates, and to be trained on how to operate the network as the position of the net control station operator rotates monthly.

In addition to the weekly net exercise, IVECS members, along with Omnitrans, participate in the regional annual Great Shake-Out, an earthquake drill that's held on Oct. 17. While IVECS hasn't been used during a real emergency, it has been tested during this event.

Omnitrans is also focused on enhancing the safety and security of day-to-day operations for employees, passengers and pedestrians. To do this, the agency has applied improvements to a variety of technology, equipment and training programs.

For instance, the agency has been adding audible turn signals to all its buses since 2015. The audible turn signals alert pedestrians in close proximity when the bus is turning by announcing in English and Spanish "caution, bus is turning." A second feature was later installed for an added safety measure. This is a light to warn pedestrians wearing earbuds or who have a hearing disability. When the bus makes a turn, a strobe flashes in conjunction with the announcement.

Director of Operations Shawn Brophy says improvements have also been made to the mobility securement systems on all buses for passengers with disabilities. Omnitrans upgraded to the Q-Pod three-belt ratcheting securement system and a rear-facing securement station. The securement system prohibits tipping by tightening the mobility device to the side wall. Passengers can access the rear-facing station by backing into a padded backrest, setting the brake or powering off the device and lowering a restraining



bar. A belt can then be attached to the bar to prevent rolling.

"Efforts to safeguard our customers and our employees is integral to the Omnitrans mission," said Deputy General Manager Erin Rogers. "A strong safety culture gives our customers confidence in the system so they will continue to use transit in their daily lives."

Omnitrans is also piloting automated collision avoidance technology.

"We are currently testing the Mobileye Advanced Driver Assistance System which provides driver protection to help avoid accidents via early warning device," said Director of Maintenance Connie Raya. "The system can detect movements in blind spots that may be missed by a coach operator trying to scan all the various hazards."

The agency will likely go through a competitive procurement process next year to implement the system for the entire fleet.

Safety programs in place also target coach operator trainees. In 2014, the agency acquired a bus simulator through a Workforce Development grant and a partnership with the Leonard Transportation Center at California State University, San Bernardino.

Trainees test their skills as the simulator mimics different driving hazards and potentially



THE AGENCY uses the Q-Pod three-belt ratcheting securement system and a rear-facing securement station.

dangerous situations. Typically, between 60 and 70 coach operators will train on the simulator annually and it is primarily used to teach and reinforce "good driving habits such as checking mirrors, proper braking, using turn signals, lane control [and] scanning for road hazards," according to Rogers.

Additionally, Brophy says Omnitrans "streamlines the process" to receive a commercial driver's license by employing two DMV-certified examiners as fleet safety trainers.

Omnitrans has also introduced "Stop the Bleed" and "Active Shooter" training. Bleeding control stations and AEDs were purchased for all the agency's facilities. This past year, Brophy says an AED was used when an employee lost consciousness and believes it's what kept him alive while the paramedics responded.

A BUS simulator tests Omnitrans bus operator trainees.

How enhancements are benefitting the system

"A safe and secure workforce makes Omnitrans a stronger organization," Rogers said. "As a side benefit, safety

improvements may generate cost savings for the agency through reduced insurance rates and claims, lower employee absences and fewer maintenance expenses."

One example is the upgraded mobility device securement system. Since using the new equipment, no tipping accidents have occurred, according to Brophy.

"In one prior instance, the agency incurred a \$1 million claim due to such an incident involving a customer in a wheelchair," he said.

The other various improvements to the safety and security programs have "contributed to a 32 percent reduction in preventable accidents since 2012," Brophy added.

The accidents have reduced from 1.15 per 100,000 miles in 2013 to .80 per 100,000 miles in 2018. Brophy explains this allows the agency to avoid costs such as accident or injury claims and fleet repairs.

Developing a safety culture beyond technology

Beyond new technology and equipment or new programs, Omnitrans' focus on safety extends throughout the entire organization by creating an internal safety culture with high safety standards and a reward structure for those who meet or exceed them.

"Creating a strong safety culture takes a lot of hard work and persistence," Brophy said. "Rule enforcement, discipline, ongoing communication and re-training all play a role in reducing accidents and promoting safer driving habits."

To maintain this safety culture throughout the entire agency,

Omnitrans assigns a designated safety coordinator to each department. This person conducts monthly walk-through inspections and identifies and reports unsafe conditions.

The Operations Department highlights a safety topic each month to keep coach operators



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engaged. Recently, the department developed a “Be Aware, Move with Care” back-to-school campaign and created buttons, posters and banners with the message.

Along with the monthly safety topics, the Safety and Security team publishes a monthly Safety and Security Newsletter and creates bulletin board postings. There is also recurring training provided for CPR, first aid and AED.

To reward employees for adhering to its standards, the agency celebrates safety milestones. For instance, drivers who log 25,000 hours with no preventable accidents achieve the Million Mile status. They’re rewarded with a presentation ceremony at a board of directors meeting. And they also receive recognition in the newsletters and on the website.

“Each inductee receives a special plaque, jacket, hat, belt buckle, certificate, a silver name plate, a day off with pay and \$500 in recognition of their great feat,” Brophy explained. “The Two Million Mile drivers also receive a five-day cruise to Mexico, including paid time off.”

Safety and security improvements to come

Omnitrans continues to build upon its safety and security programs and initiatives. The agency, like others, is working to develop its Public Transportation Agency Safety Plan (PTASP) as required by the Federal Transit Administration.

Since Safety Management Systems (SMS) are the foundation of a PTASP, the agency is providing SMS training to all its frontline and key staff employees to help them have a better understanding of the concepts and procedures, Brophy says.

Additionally, Omnitrans is testing out new onboard software systems.

“[The] onboard collision avoidance software systems [are] designed to help avoid accidents via early warning devices,” Brophy said. “These systems are specifically designed to keep employees, pedestrians and other motorists safe, as coaches drive designated routes in our service area.”


Creating and maintaining a safety culture

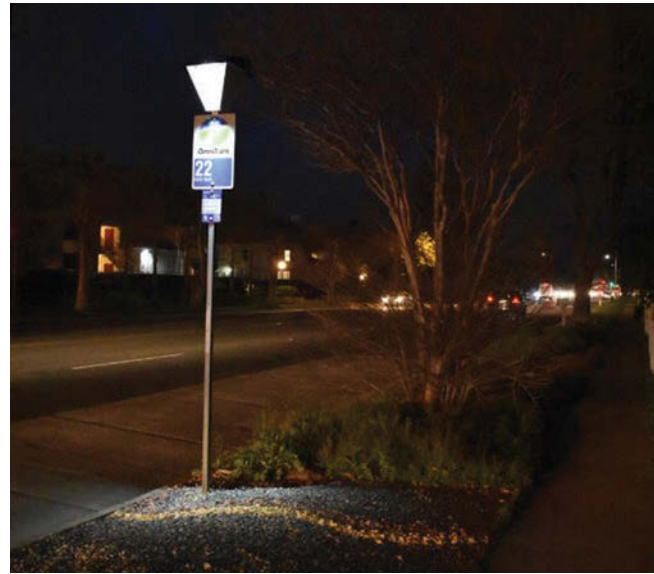
Agencies wanting to instill a safety culture should first focus on internal efforts to get everyone engaged and invested in setting and achieving higher safety standards. And they should also make time to recognize those achievements.

“A key to our success is delivering consistent and constant messaging without being monotonous,” Brophy said. “Finding time to celebrate and recognize positive behavior and agency achievements in safety and security is essential.”

When it’s time to implement new technology or upgrade equipment, Brophy recommends looking for grants related to safety and to start by rolling out the improvements with new vehicle purchases if it’s not possible to implement them on the entire fleet at once.

And while it’s necessary to focus on the day-to-day operations of the system, it’s important to prepare for natural disasters and emergencies.

“Emergency communication and emergency preparedness are significant hurdles to a transit agency and their surrounding communities during and after disasters,” Brophy said. “Therefore, the Inland Valley Emergency Communication Services Program, Stop the Bleed and Active Shooter Training can easily be duplicated by fellow transit agencies partnering with existing contacts and local non-profit resources.” 



OMNITRANS HAS installed more than 100 pole-mounted solar lights at various bus stops to increase passenger safety.

Sustainable energy providing sustainable safety

Safety enhancements were also made at various bus stops using solar lighting.

Omnitrans installed more than 100 pole-mounted solar lights throughout its 450-square-mile service area to increase safety for passengers, according to Director of Strategic Development Jeremiah Bryant.

The stops that received lights were chosen based on the scores they received from a customer survey question that asked passengers if they felt safe while waiting for the bus.

“Additionally, we got input from coach operators to identify locations where it was difficult to see waiting passengers in the dark,” Bryant added. “We also have solar-powered lighting in bus shelters.”

Omnitrans is also focused on implementing sustainable energy throughout the system in more ways as transit agencies in California must reach 100 percent zero emission fleets by 2040.

“We are at approximately 90 percent design on solar and battery energy storage systems for agency facilities,” Raya said. “The solar arrays would lower our electrical consumption and would be placed on roof tops, over the bus yards and over employee parking lots.”

The project, which could help decrease the agency’s peak electrical demand and provide a bit of a resiliency, is on hold until a county wide study for zero emission buses and future funding is completed, according to Raya.



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2019 U.S. TRANSIT SAFETY AND SECURITY REPORT

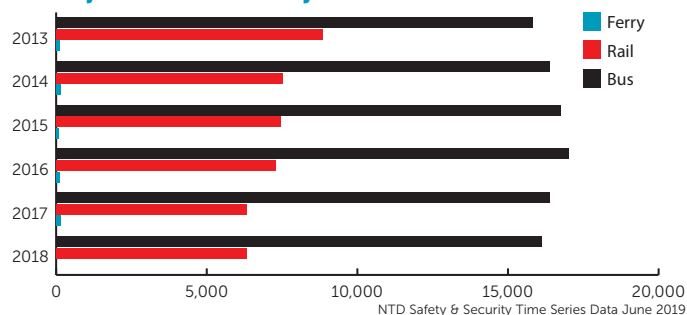
A statistical look at where public transit is improving on the safety and security fronts and where there is room for improvement.

Compiled by **Mischa Wanek-Libman**, executive editor

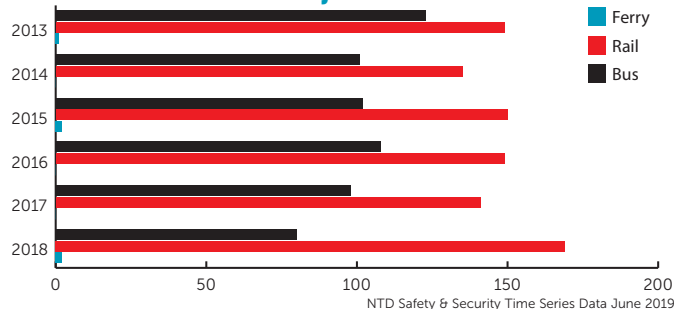
DATA COLLECTED BY THE BUREAU OF Transportation Statistics and analyzed by the American Public Transportation Association (APTA) shows that transit is the safest mode of transportation. According to APTA's 2016 report "The Hidden Traffic Safety Solution: Public Transportation," transit is 10 times safer per mile than by car because it has less than a tenth of the per-mile traffic casualty (injury or death) rate as automobile travel. Additionally, intercity and commuter passengers have about one-20th and urban rail and bus passengers about one-30th deaths per billion passenger-miles as automobile travel.

Keeping passengers safe when they are onboard vehicles is one area of concentration; another is en-

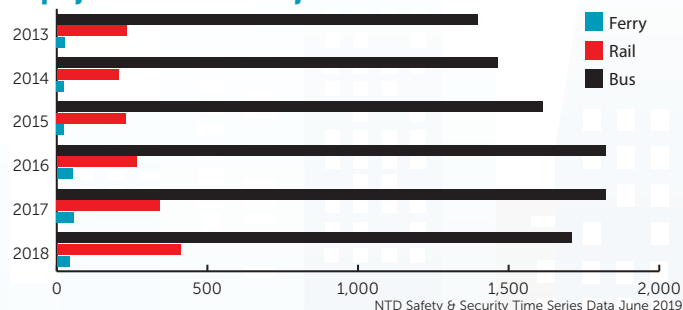
Total injuries on U.S. transit systems



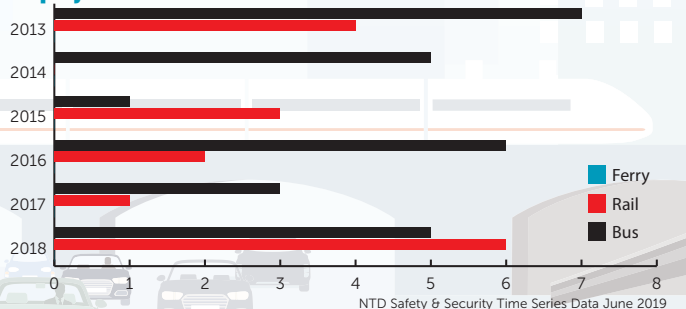
Total fatalities on U.S. transit systems



Employee incidents - total injuries



Employee incidents - total fatalities



By The Numbers

81%

of buses have security cameras*

52.5%

of transit stations have security cameras#

29.9%

of stations have Emergency Call Buttons#

81%

of buses have Automatic Vehicle Locator or GPS*

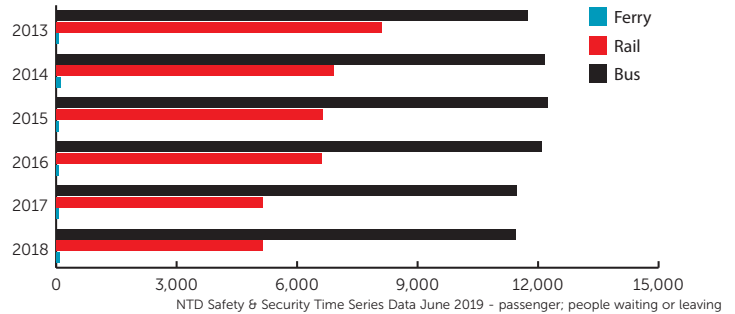
*APTA 2019 Public Transportation Fact Book

#APTA 2018 Infrastructure Database

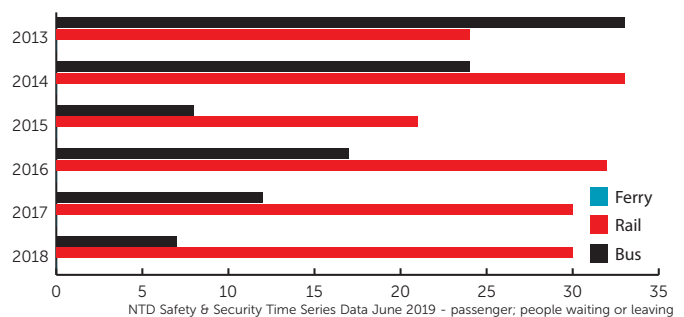
ensuring their safety while in and around stations, stops and other transit-related facilities. The Federal Emergency Management Agency (FEMA) has grant funding available to help transit systems enhance security. The Bay Area Rapid Transit is using awarded FEMA funds to fully staff its police department and keep passengers safe while traveling through the system's busiest stations. Other systems to benefit from the grants this year include New Jersey Transit, Port Authority of New York and New Jersey, Delaware River Port Authority and the Maryland Transit Administration, among many others.

On another front, New York City Transit announced in June it will be adding 500 additional officers to its ranks to help fight fare evasion and address the rising number of transit worker assaults on the system. Once fully implemented, the Fare Enforcement Task Force, comprised of 200 NYPD officers, 300 Metropolitan Transportation Authority (MTA) Police Department officers and Bridge & Tunnel Officers and 70 New York City Transit Eagle Team members, will be deployed to targeted locations with the highest levels of incidents of assault on MTA workers and the subway stations and bus routes with the highest ridership rates. The additional MTA personnel will receive training to support this effort prior to deployment.

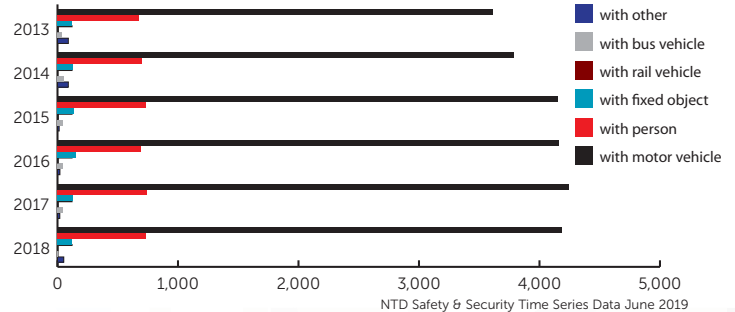
Non-employee incidents - total injuries



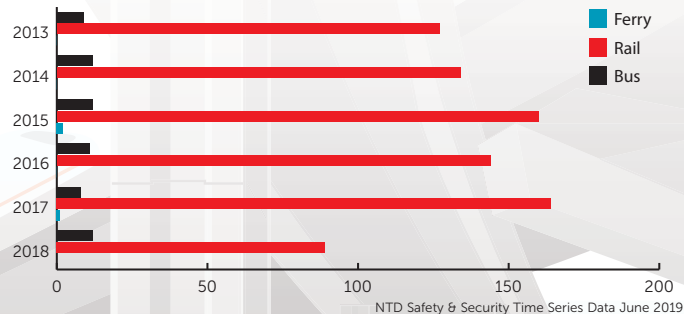
Non-employee incidents - total fatalities



Collisions



Suicides (total of intentional acts that resulted in death or injury)*



*If you or someone you know is struggling with feelings of depression or suicidal thoughts, the National Suicide Prevention Lifeline offers free, round-the-clock support, information and resources for help. Reach the lifeline at 800-273-8255.

Injuries and Fatalities

More than **8%** reduction in total fatalities between 2013-2018

More than **9%** reduction in total injuries between 2013-2018

82% of transit vehicle collisions are with a motor vehicle

NTD Safety & Security Time Series Data June 2019

Combating operator assaults is also being addressed among bus networks with Edmonton Transit Service, Pinellas Suncoast Transit Authority and Hillsborough Area Regional Transit Authority all implementing plans in 2019 to install driver safety barriers on their existing bus fleets. Dallas Area Rapid Transit began accepting delivery of 41

new compressed natural gas buses in August that are equipped with driver safety barriers.

Among rail networks, the topic of trespass and suicide prevention continues to draw focus. The Federal Railroad Administration (FRA) issued a Notice of Funding Opportunity (NOFO) in the Oct. 22 edition of the *Federal Register*

for \$150,000 in grants available under its Railroad Trespassing Enforcement Grant Program.

Trespassing is the leading cause of rail-related deaths in the United States and FRA, as part of its National Strategy to Prevent Trespassing on Railroad Property, established the grant program to fund enforcement of trespassing laws.

FRA says such activities may include investigating trespass incidents, as well as issuing warnings and citations to trespassers.

Operation Lifesaver, Inc. (OLI), awarded grants to 10 transit systems in 2019 to enhance safety programs, including a grant to Southeastern Pennsylvania Transportation Authority (SEPTA) that will help fund its suicide-prevention campaign aimed at reducing rail suicides among first responders and veterans at risk for suicide. This effort will be undertaken with the Regional Suicide Prevention Task Force of Southeastern Pennsylvania.

"These transit agencies will put their grant funding towards campaigns focusing on keeping the public safe when driving or walking near commuter trains, light rail or streetcars," said OLI Executive Director Rachel Maleh. **MT**

Trespassing on passenger rail property*:

May – the month with the most incidents

September – the month with the lowest amount of incidents

Friday – the day of the week with the most incidents

Saturday – the day of the week with the lowest amount of incidents

6 p.m. – the time of day with the most incidents

3 a.m. – the time of day with the lowest amount of incidents

Walking – what more than half of trespassing incident victims were doing prior to the event

*FRA Trespass and Suicide Dashboard; data range Jan. 2009 – June 2019



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GOING VERTICAL:

The Upside of Multi-Level Transit Facilities

Thinking vertical about facilities can offer a solution to meet cost and location requirements while ensuring the facility meets its intended needs.

By **Sean Beachy, Jeana Stright, contributors**

As transit agencies work with architects and engineers to build their projects, they not only need to address the project requirements within a budget but also must contend with project factors such as site constraints and regulations. Building a multi-level facility is one solution to these problems that entities including the Pioneer Valley Transit Authority (PVTA) and Connecticut Department of Transportation (CTDOT) have used to get the most out of their projects.

Site constraints

A great site is the foundation of every successful project. Transit agencies often struggle to acquire the best piece of land for their project due to key factors such as location, cost and adjacency to historic or protected properties, just to name a few. It is important for design teams to work closely with owners to make the most out of their site.

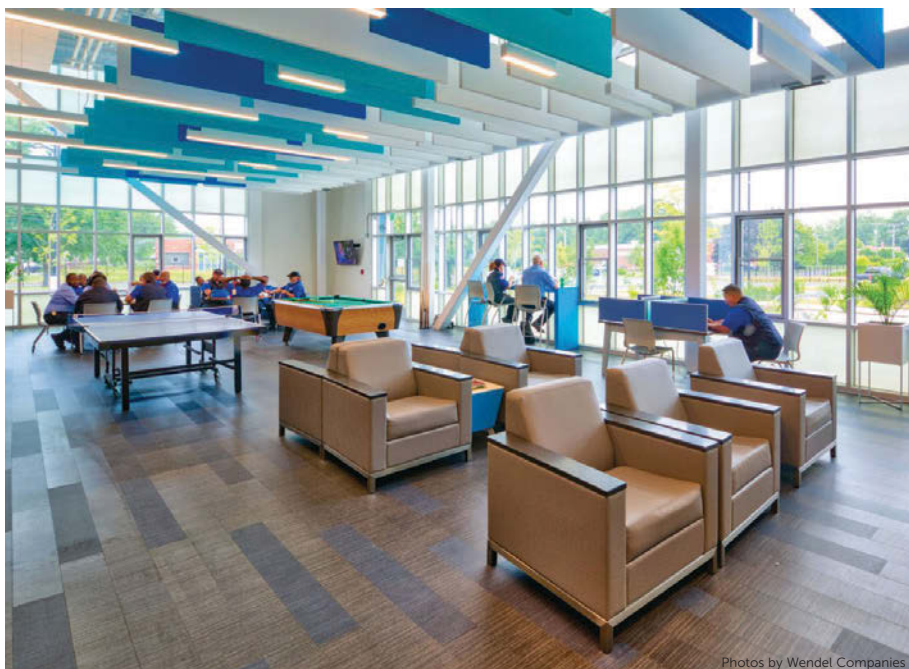
A great example of how site considerations can affect construction are newer, stricter stormwater retention requirements that were put in place to

prevent detrimental soil erosion, stream contamination and other harmful environmental effects. These retention basins require substantial space on the site or can incur a significant cost impact if they are handled underground. Say you have the perfect site in mind for your facility: the right size, the right location, the right access. Yet you discover that the footprint of the building you had in mind would not leave enough space for the required retention basin. It isn't time to start looking for a new site; it's time to start rethinking the design of your facility.

Wetlands and floodplain regulations can also be a factor when building on a site. The Federal Transit Administration does not allow for building within the 100-year floodplain, while some insurers are even stricter. For instance, FM Global, who insures all state buildings in Connecticut, does not allow building within the 500-year floodplain. Rather than paying for large amounts of compacted fill to reach the 500-year floodplain, CTDOT chose to construct a ground floor level at the existing grade for employee car parking at their new Waterbury facility, and elevate the rest of the building to the 500-year level. This decision allowed them to have less impervious surface at grade level and protect views to the scenic mountains and rivers around the site.

A constrained site with limited access is another constraint that CTDOT was faced with when constructing their Waterbury facility. The chosen site is located within a valley between two mountains, with a river, a railroad and a recycling plant sur-

**DRIVER BREAK
Room at PVTA.**



Photos by Wendel Companies



THE EXTERIOR
of CTDOT's
Waterbury
facility.

“... you discover that the footprint of the building you had in mind would not leave enough space for the required retention basin. It isn't time to start looking for a new site; it's time to start rethinking the design of your facility.”

rounding it. Site access is mostly restricted to one access point and there is not any available space to introduce new access roads. PVTa's facility in Massachusetts had similar landlocked restrictions, with several industrial neighbors and a railroad locking it into having two access points from the same road. When dealing with this type of constraint, a thorough knowledge of factors such as bus circulation, fire department access, code compliance and parking requirements allows the design and stakeholder group to make critical decisions to make the most of each site challenge. In these cases, the entities' willingness to take advantage of vertical space allowed them to better accommodate all of these factors within their chosen sites.

Finally, the most important reason to consider building up instead of out – looking to the future. It is essential not to use every available inch of the site in your initial design, which will be especially tempting on a site with space constraints. By spreading

out over the site, all hope of future growth and expansion may vanish if adjacent property is unavailable. Both PVTa and CTDOT's facilities, although working with similarly constrained sites, managed to leave ample room for growth on the south and north ends of their sites, respectively.

Debunking myths about construction expenses

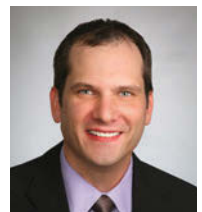
By now the logistical benefits of building vertically should be plain and obvious, however, many owners believe that choosing a multiple level facility greatly increases cost. The truth is, when all site factors have been evaluated, going to a multi-level facility may be the most cost-effective option.

For instance, the foundation and mechanical systems of single and multi-level facilities are not fundamentally different. In fact, the necessary building height required for lifting buses lends itself to a second level that effectively makes use of the rest of that unused vertical space. Additionally, roof access convenience through the second floor can provide

walkout access for ease of maintenance. In the cases of CTDOT and PVTa, the implementation of elevated administrative offices on a second level allows for a smaller building footprint on the site, the benefits of which have already been detailed.

Sustainable strategies that create workspaces people want to be in, such as daylighting, are another point in favor of multi-level facilities. Daylighting and exterior views are not possible from every workspace on a more spread out, single-level facility. However, the smaller footprint of a multi-level facility gives more opportunity for exterior views throughout the building. This benefits worker efficiency, employee retention and overall workplace satisfaction. For example, CTDOT's Waterbury facility is designed to Connecticut's High Performance Building Standard. The second floor allows for additional window frontage and views that give the offices a view of the outdoors. The maintenance bays similarly boast natural light and ventilation through an elevated clerestory.

Ultimately, the cost of building vertically is dependent on the size and scale of the facility and operation, and each case is unique. However, successes such as CTDOT and PVTa's facilities show that going vertical can be not only viable but also preferable on sites with space, access or regulatory constraints. **MT**



Sean Beachy, AIA, NCARB, serves as senior architect, senior associate principal for Wendel Companies.



Jeana Stright, RA, LEED AP, serves as architect, associate principal for Wendel Companies.

Considering the Rail Passenger Purview

Delivering reliable service is one aspect of retaining rail ridership but addressing riders' perceptions of that service and the environment in which it occurs could help bolster positive results.

By **Mischa Wanek-Libman**, executive editor

THERE ARE MANY REASONS why people *should* choose public transit; from the positive impact on the environment to the fact that, as a mode of travel, transit is several times safer than a personal vehicle.

However, while the amount of rail systems increased significantly during the past three decades, ridership in some sectors of the United States has seen a slight decline in recent years. According to numbers published in the American Public Transportation Association's (APTA) 2019 *Public Transportation Fact Book*, light rail and streetcar ridership increased by 0.9 percent for the year 2016-2017, but commuter and hybrid rail ridership declined by 0.4 percent during the same period. The 2019 *Fact Book* also notes that rail modes make up the majority of the total passenger miles taken during that time frame.

Rail systems have fought long and hard budget battles, with mixed results, as they attempt to address the large backlog of state of good repair work required to keep capital intensive rail infrastructure in optimal shape, which leads to more reliable service. While service is one factor that determines

why people should choose rail transit, another less concrete factor may play into why they do not make that choice: Perception.

A 2013 study by researchers at the University of California, Irvine, examined transit use among a small segment of residents in south Los Angeles, Calif. The study determined that within the sliver of residents evaluated, transit attitudes and safety concerns were related to transit use.

The study authors wrote:

Our analysis indicates that two [Perception-Intention-Adaptation] constructs, attitudes toward public transportation and concerns about personal safety, significantly improved the model fit and were robust predictors of transit use, independent of built environment factors such as near-residence street network connectivity and transit service level. Results indicate the need for combined policy approaches to increasing transit use that not only enhance transit access, but also target attitudes about transit service and perceptions of crime on transit.

Recent initiatives from transit agencies with rail systems indicate rider perceptions in addition to service delivered is actively being



BART HAS highlighted members of the station cleaning team on social media, such as Jorge seen here, to bring attention to their work. Comments on the posts have been overwhelmingly positive.

addressed through implementation of advanced technology, improved rider outreach efforts and even the simple act of keeping systems clean.



Bay Area Rapid Transit

Clean and well-lit systems

Bay Area Rapid Transit (BART) tracks several indicators meant to evaluate passenger views of the system in addition to the usual on-time performance and vehicle uptime. The ratings are compiled using rider responses to BART's

Passenger Environment Survey (PES) questionnaires that are available in several languages. BART collects between 5,000 and 6,000 questionnaires every quarter to keep tabs on its passengers' opinions on the transit environment.

BART reported in August that the station cleanliness rider scores showed marked improvement in the quarterly performance report for the fourth quarter of FY 2019. BART says the biggest year over year ratings improvement was for elevator cleanliness, with 58.1 percent of riders giving a "good" or "excellent" rating, up from 42.8 percent for the same quarter of last year.

BART credits the increase to the elevator attendant program launched in April of 2018 at the Powell Street and Civic Center stations. The program has virtually eliminated inappropriate behavior in these station elevators and in July, the BART Board of Directors voted to expand the program to the Embarcadero and Montgomery Street stations as early as this fall.

Other increases were seen in the percentage of riders positively rating the cleanliness of station platforms and restroom cleanliness. BART also saw improvements in three new categories meant to address quality of life issues and include cleanliness of the concourse, escalator cleanliness and stairwell cleanliness.

For BART's new General Manager Bob Powers, improving cleanliness is part of his plan to put riders first.

"We are committed to improving the customer experience



Bi-State Development

ST. CLAIR
County Transit District recently completed a project that upgraded lighting at all Illinois Metrolink stations.

"We believe our efforts are reflected in these latest ratings and we will continue to prioritize riders with our plan to hire 15 new cleaners over the next six months.

-BOB POWERS,
general manager, BART

through cleaner stations and have revamped our approach to include focused overnight cleanings of our busiest stations," said Powers. "We believe our efforts are reflected in these latest ratings and we will continue to prioritize riders with our plan to hire 15 new cleaners over the next six months."

Halfway across the U.S., the St. Clair County Transit District (SCCTD), in partnership with Ameren, Illinois, recently wrapped up a lighting project that will not only improve safety at the MetroLink stations in Illinois but will also reduce monthly electric costs by approximately 60 percent.

SCCTD says by upgrading outdoor lighting from halogen to LED at all 11 Metrolink stations in Illinois, rider safety and security is improved, as is efficiency.

"Our number one priority is our riders. This program demonstrates that priority while being fiscally responsible as an agency," said Herb Simmons, chair of the St. Clair County Transit District Board of Trustees.

Replacing aging outdoor halogen lights with brighter LED bulbs will boost night-time visibility for patrons using the MetroLink system and parking lots and, as SCCTD Managing Director Ken Sharkey noted, the parking lot security cameras as capturing better images that can help law enforcement patrolling the facilities.

"This project is a perfect example of the power of partnerships, and how

working together, we can make an investment that both saves taxpayer money and improves the comfort, safety and overall transit experience for our customers," said Taulby Roach, president and CEO of Bi-State Development.

Positive on-board experience

There are several examples of transit systems across North America instituting

public awareness campaigns that aim to reduce offences experienced by riders. Washington Metropolitan Area Transit Authority (WMATA) launched a series of ads this past April developed with Stop Street Harassment and Collective Action for Safe Spaces to stop harassment. The campaign featured the message "You can help STOP harassment" with four simple strategies that spell out STOP – Sidetrack, Tell, Observe and Postpone.

The campaign is part of an ongoing effort that began in 2012 to raise awareness and combat sexual harassment in WMATA's system. In a report last year, Understanding Sexual Harassment on Public Transportation, WMATA found that familiarity with the campaign increased the likelihood of reporting incidents of harassment.

"Harassment of any kind is unacceptable in the Metro system," said Metro Transit Police Chief Ron Pavlik. "It's important for riders to have the tools to know how to report harassment and how they can help if they see it happening."

In the Tampa, Fla., area, the Hillsborough Area Regional Transit Authority (HART) launched its Ride with Respect campaign in early August to promote positive on-board experiences for both operators and riders.

The campaign educates riders, operators and the community of system safety and security rules, riding etiquette and includes operator customer service training and a social media campaign aimed to elevate the transit operator position to the level of first responders.

HART explains that central to the Ride with Respect campaign is a series of emotional short vignettes following HART operators throughout their day, displaying family interactions, hobbies, devotions and other life elements to help customers and the general public better connect with HART staff.

"Every day, more than 300 transit professionals and 34,000 customers share a space on HART buses, vans and streetcars," said HART CEO Benjamin Limmer. "We hope launching the Ride with Respect campaign helps maintain a safe, respectful and courteous environment on board our vehicles." 



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Emergency Response

Transit providers must remain prepared for action should an emergency of any kind arise.

Emergency services during hurricane evacuations



By Chris Stephenson
Transportation and Mobility
Management Director,
Senior Resource Association,
Indian River Transit GoLine &
Community Coach

VERO BEACH, FLA. • When it comes to emergency services in Florida, mass transit is known for hoping for the best but preparing for the worst. In Indian River County, a community of 154,000 people between West Palm Beach and Orlando, every June through November (“Hurricane Season”), the Senior Resource Association (SRA), the organization contracted to provide mass transit and paratransit in the county, stays updated on tropical storm potential regularly. SRA is responsible for transporting individuals to the special-needs shelter (SNS) when the county’s Emergency Operations Center activates its hurricane shelters. Special needs individuals are residents whose medical condition may require the use of electrical equipment, oxygen, dialysis or individuals with physical, cognitive or medical conditions who may require assistance from medical professionals. These evacuations require meticulous planning and flawless execution. Due to the vulnerable nature of these passengers, each trip takes time and space is limited on each vehicle because of all the items passengers are bringing, so multi-loading is difficult.

Three times in the past four years the SNS has been activated in Indian River County. Hurricane Matthew in 2016 saw

188 people go to the SNS, Hurricane Irma in 2017 saw 276 and Hurricane Dorian in September of 2019 saw 194 people.

Although a lot of shelter residents are dropped off by friends/relatives, during each of these storms SRA helped evacuate and transport more than 100 individuals in the hours leading up to the arrival of tropical storm force winds. Many processes have been put in place to make Senior Resource Association/Indian River Transit’s operation a best practice for emergency services during hurricane evacuations.

1. Regular communication with the Emergency Operations Center. Staff at the EOC send SRA a list at least once every month of all the people who are registered for the shelter so transit staff can start putting together a plan on how to evacuate each household. This happens even if it’s December or January and no storm is in sight.

2. SRA runs mass transit fixed route buses for as long as possible in the hours leading up to the storm. This gives people the ability to get supplies to prepare their homes. It would really be unfortunate if transit wasn’t there for people when they MOST needed it.

3. SRA takes the pets of SNS clients to the humane society before taking the passenger to the shelter. (The humane society watches their pets during the storm). It adds a leg to the trip but makes the passenger transition much faster because individuals aren’t worried about their animals. This is how we take a small level of stress away from the public during an already super-stressful situation. (In addition to evacuating those individuals/pets, SRA is also responsible

Hurricane Matthew in 2016 saw 188 people go to the SNS, Hurricane Irma in 2017 saw 276 and Hurricane Dorian in September of 2019 saw 194 people.

for transporting general population residents with pets that reside within evacuation zones to the pet friendly shelter in Indian River County).

4. For paratransit services SRA prints off drivers’ schedules and manifests for the weeks following the storm ahead of time. Even though our building is supposed to be able to withstand hurricane force winds, we want to be able to get back on the road ASAP to trip people after the storm, even if we have no electricity, internet access, phones, etc. in our building.

5. The school district in Indian River County helps transport the general population that live in evacuation zones to/from other shelter sites in the county, but even they have called on the transit agency to help in the past. Transit agencies have to be flexible and willing to help out in whatever way they can. Storms are a great opportunity for transit agencies in the community to show how relevant they can be to people’s quality of life.

6. Following the storm, SRA is responsible for getting people home after it’s confirmed the residence can support the individuals’ special needs.

Up Next

We’re on the lookout for Best Practices on the following topics:

- Improving efficiencies with data in our December/January issue
- Passenger information in our February issue

If you think your agency’s way of doing business applies, we want to hear from you: editors@masstransitmag.com.

BEST PRACTICES

Palm Tran takes an all-hazards approach to emergency weather preparation



By Clinton B. Forbes
Executive Director, Palm Tran

WEST PALM BEACH, FLA. • Located in Palm Beach County, Palm Tran has the vital task of preparing for hurricane season, which spans from June 1 to November 30 each year. However, Palm Tran's comprehensive emergency management plan goes far beyond hurricane preparation. Palm Tran must be prepared to move on a moment's notice in the event of any and all-natural disasters.

Palm Tran employs various measures year-round to maintain an all-hazards



The Palm Tran Connection evacuated disabled individuals to the special needs shelter in West Palm Beach, Fla., during Hurricane Dorian this past September.

approach to weather preparation. We live and work in paradise; however, we must balance that lifestyle with ensuring our public transportation system can meet the demands that come with being located in a subtropical climate. Employees train all year, get credentialed all year and even take Federal Emergency Management Agency classes to maintain their expertise in handling weather emergencies.

Palm Tran assumes the role of the transportation unit leader at the Emergency Operations Center (EOC). This is an essential emergency support function and Palm Tran is responsible for all facets of transportation-related items during an activation of the EOC.

The decision on whether or not to cease operations is a balancing act that every transit agency in the country has

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to address. In the case of a hurricane, Palm Tran monitors the wind, the rain and any adverse effects that could affect fixed-route services. Our goal is to maintain public transit for as long as possible up until the point in which conditions deteriorate and we can no longer do so.

Palm Tran's hurricane policy requires bus service to be discontinued if winds reach a sustained level of 39 miles per hour and/or if emergency operations personnel deem driving conditions unsafe. In the event of a mandated evacuation, Palm Tran buses will cease regularly scheduled service and begin emergency evacuation from evacuation zones.


All Palm Tran employees are considered to be essential first responders and need to be prepared physically and mentally to respond. The utilization of Everbridge, a mass notification system, is crucial technology when it comes to texting, emailing and calling Palm

Tran employees in regard to work and shelter assignments.

In addition, Everbridge is used to communicate with the list of more than 10,000 pre-registered individuals listed as possibly needing transportation. Palm Tran's paratransit service, Palm Tran Connection, takes the lead when an evacuation order is given to transport special needs residents to shelters that meet their specific needs. These residents evacuate between three and five days, so Palm Tran Connection operators must be prepared to transport them along with three to five days of their belongings to the shelters. Some of the items brought on board include electrically-dependent medical equipment to sustain life.

After the storm is where the real uncertainty begins. Palm Tran will evaluate the damage to infrastructure to determine what appropriate actions are plausible. In these moments, it is im-

portant to be a chameleon and understand the flexibility of what needs to be done. Our number one resource is our human capital so Palm Tran will take inventory of our staff such as totaling available bus operators and maintenance technicians to make critical decisions on how to respond.

In terms of protecting our bus fleet, Palm Tran parks its buses in several different parts of the county. Palm Tran is fortunate to have a relationship with the county which allows it to park its buses at public parks if needed. We recognize the importance of maintaining solid relationships on both the county and state levels. Ultimately, the goal is to plan for the absolute worst while hoping for the best. At Palm Tran, our mission is to provide access to opportunity for everyone, and our emergency weather preparation plans ensure that no one is left behind in a catastrophic weather emergency. 



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➔ www.codeblue.com



Smith System Driving The 5 Keys Bus & Transit

"Driving The 5 Keys Bus" video (available in DVD and USB) provides drivers with an insight into common driving errors and proven safety techniques geared specifically for drivers of city transit, school, paratransit and motor coaches. This video applies the 5 Keys to Space Cushion driving to the bus and transit services, which are challenged by vehicle dimensions, passenger needs and hazards unique to bus stops.

➔ www.drivedifferent.com



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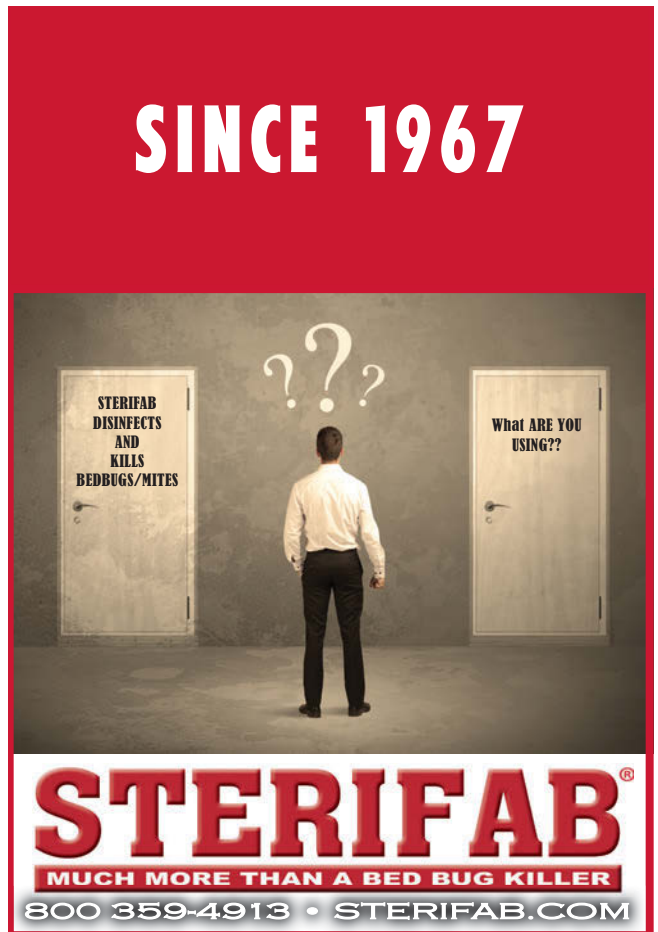
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Southco, Inc. AC-10-EM Actuator with Electronic Lock/Unlock

Southco's AC-10-EM Actuator with Electronic Lock/Unlock offers an upgrade to electronic access control. It connects to a remote access controller, enabling keyless access for outdoor applications. With its recessed handle and flush-mount paddle design, the AC-10-EM eases operation when opening panels and doors while reducing snag and catch points. This product is ideal for access to off-highway equipment entry doors, RV entry or baggage doors and storage panels, bus baggage doors and specialty vehicle storage panels.

➔ www.southco.com/en-us



AMF-Bruns of America FutureSafe: Head & Backrest / Seatbelt Anchorage

AMF-Bruns' FutureSafe Head & Backrest / Seatbelt Anchorage allows wheelchair passengers with upper extremity issues to travel safely and comfortably in the case of an accident or sudden stop. With two quick movements, this side-entry system locks behind the wheelchair passenger / driver to provide greater security. Crash tests show that FutureSafe maintains a high level of safety in a rear impact; it can withstand 15 g forces of rear and 20 g forces of frontal collisions; and it meets all applicable regulations.

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PRODUCTS

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This automated voice annunciator system provides a transit experience with audio/visual communication. The system broadcasts bus route and safety information using the vehicle's PA system and destination sign. An integrated GPS unit delivers location details to automatically trigger system messages. FlexSpeak is fully ADA compliant when combined with a destination sign. Configure fixed route stop locations and messages using the FlexSpeak programming utility software. For expanded messaging functionality, FlexSpeak can be integrated with the FlexTech™ programmable electrical system.

www.InterMotive.net



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www.radioeng.com

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www.seon.com

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Amanda Landsaw, Audience Development Team Lead

September 17, 2019



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NJ TRANSIT @NJTRANSIT

Governor Phil Murphy spent the day riding the NJ TRANSIT River Line from Trenton to Camden, meeting with residents and small business owners. [@GovMurphy](#) touts the River Line as an economic engine. More info: bit.ly/2BAxvIL



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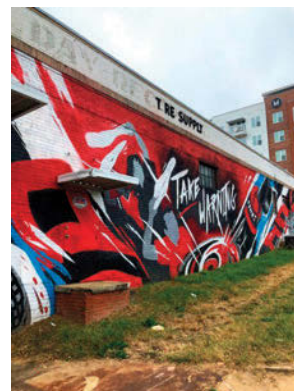


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► It is great to see our friends at @GoTriangle supporting local artists and the Triangle's own @Canes through this magnificent mural! Check out the mural on the corner of Harrington and Lane Streets in Downtown Raleigh. [#TransitSupportingTransit](#) [#CarolinaHurricanes](#) [#LocalArt](#)

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THE VIEW



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This morning at the [@SEPTAPHILLY](#) 15th Street Station ribbon cutting. Completed improvements include new elevators, reconstructed fare lines and platforms to improve passenger flow, new lighting and finishes.



EMILY GATES
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How I got [@transitapp](#) brochures and socks to [#APTatransform19](#) (for the first three miles, then I got on the 2 train)

PERSPECTIVE



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► Today DART celebrated its new on-demand service in Urbandale called Flex Connect. This new service is a 1-year pilot program testing "first-mile, last-mile" partnerships with Uber and Yellow Cab Co to help riders connect to DART fixed routes.

Flex Connect is one example of how DART is working to be innovative by leveraging technology to provide a better service for customers at a lower cost for taxpayers.

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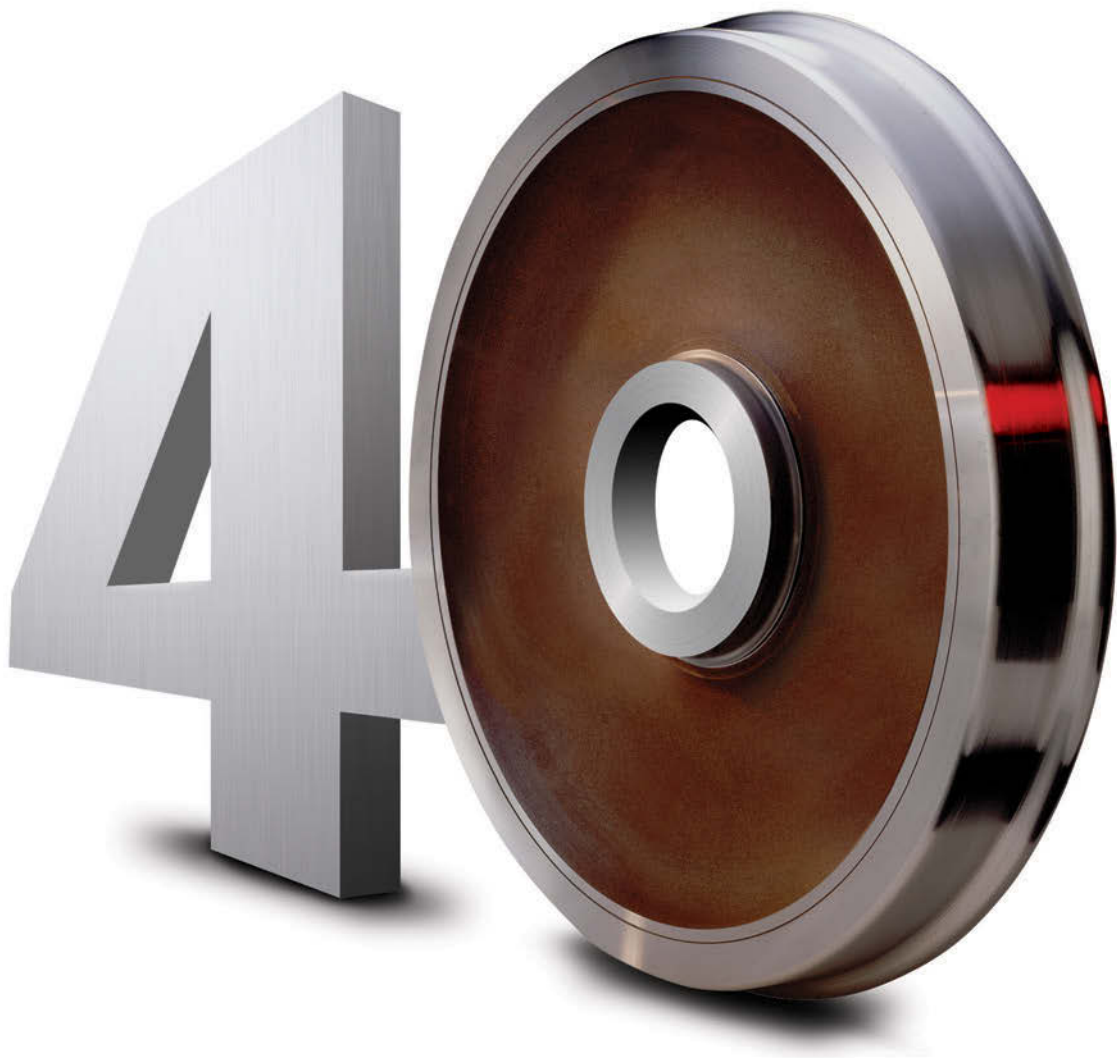
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