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What makes the new MCI Commuter Coach so different is that it has two passenger levels. This photo looks towards the rear of the coach and shows the lower level that can be entered from a ramp on the left. On the right and towards the rear is the conventional commuter coach seating on an upper level.

The New MCI D45 CRT LE

Photos courtesy of MCI

Motor Coach Industries (MCI), the U.S. subsidiary of New Flyer Industries Inc. (NFI Group), the largest transit bus and motorcoach manufacturer and parts distributor in North America, recently explained that as commuters cover greater distances without the need – or desire – for automobiles, and communities look to build cost effective transportation systems, it is unveiling a new Commuter Coach model to equip the future with comfort, environmental-efficiency and maximum accessibility for an increasingly diverse commuting population.

MCI created the new MCI D45 CRT LE to enhance the experience of Commuter Rapid Transit (CRT) and Bus Rapid Transit (BRT) systems for a range of commuters with the goal of improving accessibility.

MCI, whose Commuter Coach model is already North America's most popular and a prominent staple in fleets serving commuter routes, chose APTA EXPO 2017 in Atlanta to unveil the all new, next generation model, as communities nationwide consider CRT an effective way to respond to commuter tastes and investment objectives in expanding transportation systems.

Deliveries of the Buy-America compliant, Altoona-tested, clean-diesel coach are expected to begin in the fourth quarter of 2018. An all-electric version is also in development and will be released in 2020.

"We consider the MCI D45 CRT LE a landmark vehicle on three fronts," explains MCI President Ian Smart. "First, the model launches a boldly progressive modern design along with the amenities and comfort necessary to getting commuters to switch from commuting by car. It's important that this is a coach where people want to try commuter travel. Second, we are looking ahead to a more diverse society where different groups of citizens will face a range of mobility issues, and we believe the MCI D45 CRT LE is part of the solution. We listened to what our customers wanted and created a coach like no other with a low-entry vestibule that vastly improves dwell times and the overall passenger experience."

"Finally, we're very proud to be rolling out a 100 percent electric version because it becomes the most accessible and environmentally-friendly vehicle we've ever created," Smart said.

While MCI's current commuter coach model will continue to feature wheelchair lifts, the new D45 CRT LE is designed with a curb-level ramp and second door that opens directly into a same-level patent pending, low-floor entry (LE) vestibule with passenger seating. Additionally, the forward-door entry opens to an ergonomically-designed spiral entryway that is well lit and features supportive grab

rails. This combined ease-of-entry technology is expected to cut the considerable dwell time of traditional lifts.

The design process for D45 CRT LE involved rigorous analysis and review. MCI engaged a wide range of engineering, design, accessibility experts, including Designworks, a BMW group company, MCI's long-time consultants on model design and volunteer members from the National Council on Independent Living (NCIL) and the American Association for People with Disabilities (AAPD). After evaluating 32 alternative concepts, MCI created a functional model and engaged user groups to validate its design.

According to Brent Maitland, MCI's vice president of marketing and product planning, "We immersed ourselves in the user experience when designing this coach, seeking the input of a broad range of passengers including users of mobility devices. Their participation guided our low-floor entry and vestibule design, and our engineers worked closely with Designworks on the overall styling for it to be an alluring progressive vehicle in the fleets that operate rapid commuter transit. Designed for the highway, it is a versatile, comfortable, transportation solution for regional communities looking to provide the best solution for all their transit users, now and in the future."

The CRT LE low-level entry vestibule accessible by a second door at the midpoint of the coach includes seating for five passengers, allowing for up to two secured mobility devices and an attendant. The model offers a high-capacity, 54-passenger seating con-



This photo looks down into the lower level from above. Two passengers on mobility devices can be secured in this area, one facing forward and one facing the rear. There is also room for an attendant. Note the staircase connecting the two levels on the coach.

figuration overall, with seating for 52 when there are two passengers using a mobility device.

"We focused on accessibility, riding and exit experience from the passenger perspective, mapping the journey from waiting to board, entering the coach, securing and exiting," said Maitland. "It's some of the most comprehensive user testing we've ever done. We are grateful to our participants for their time, feedback, evaluation and design acceptance."

More About the Electric CRT LE

MCI will offer an all-electric D45 CRT LE with an efficient energy storage and battery thermal management systems driving its motor and control systems, air compressor, HVAC and all driver controls. Orders will be taken starting next year.

The all-electric model will utilize a high-torque Siemens 2130 LB FT electric drive system for operation at highway speeds with a planned range to meet long-distance commuter applications, currently up to 480 KAs for charging, the vehicle allows for high power plug-in battery EV charging to 100 percent in under three hours.

"Battery technology and performance improves seemingly every day. Each agency has its own range requirement and charging strategy," said Tom Wagner, MCI vice president of public sector. "As New Flyer, our sibling under the NFI Group, is already an experienced manufacturer in electric vehicle technology, MCI can rapidly become the leader in 100 percent electric coach technology."

New Flyer manufactures all three current types of zero-emission buses (ZEBs) including battery-electric, trolley-electric and hydrogen fuel cell electric buses. New Flyer's unprecedented design and manufacturing capability allows transit authorities the ability to optimize charging method, infrastructure and range for their specific needs.

About MCI's Public Transit History

While MCI has its roots in the tour and charter business, MCI lore suggests that the first transit use of its coaches goes back to

The coach exterior has been modernized and modified somewhat from the typical "D" model including a traditional front door as well as the new lower level center door for passengers in mobility devices. Note the new front design and destination sign.





Here we look towards the front of the coach on the lower level with the door open. This area has windows and is well lighted.



The two doors on the coach allow for both ambulatory passengers at the front as well as those using a mobility device in the center.

1965 and Gray Coach in Canada, which was eventually absorbed by Ontario's GO Transit agency. At about the same time in the U.S., Chautauqua Transit purchased an MC-5A, and 10 MC-7s were delivered to Vermont Transit in 1969. Other transit systems soon followed.

By 1991, many more U.S. regional transit authorities were created, and many of those were expanding to connect suburban communities, office parks and park-and-ride operations, and the energy crisis forced commuters to rethink their automobile usage, the MCI Commuter Coach business grew.

Accessibility has also been a factor in MCI's transit history. As early as 1984 MCI became the first manufacturer to introduce a wheelchair-lift model, at least six years

before the Americans with Disabilities Act went into effect.

Here is how MCI leads in public transportation today.

- Ten of the 25 largest North American transit agencies already feature the MCI Commuter Coach model on Commuter Rapid Transit routes.
- MCI's sister company, New Flyer under the NFI Group, developed and tested the very first low-floor transit bus to the North American marketplace in 1988 marking more than 8,000 deliveries to agencies to date. Today, 85 percent of all buses in North America use this technology.
- Only MCI builds North America's Buy America-compliant, Altoona-tested, fully accessible Commuter Coach in clean-diesel, CNG and electric options.

The coach is designed so that the lower level remains open and well lighted while allowing upper level passengers to walk around it. In the area adjacent to the lower level there are single seats on the street side. A stairway connects both levels and allows for movement between the two without leaving the coach.



Patrick Scully, MCI executive vice president of sales and marketing, added: We've made history in this business while becoming an important partner to public transportation agencies large and small throughout North America. We are very proud of the CRT LE and expect it to be one of our most evolutionary vehicles as we serve a changing commuter public."

About NFI Group

NFI Group is the largest transit bus and motorcoach manufacturer and parts distributor in North America, with 31 fabrication, manufacturing, distribution and service centers across Canada and the U.S. employing more than 5,800 team members.

It is North America's heavy-duty transit bus leader and offers the largest transit bus product line under the brand Xcelior[®], incorporating the broadest range of drive systems available, including clean diesel, natural gas, diesel-electric hybrid, trolley-electric and battery-electric. NFI Group actively supports more than 44,000 heavy-duty transit buses (New Flyer, NABI and Orion) currently in service, of which 6,400 are powered by electric and battery propulsion.

NFI Group is also North America's motorcoach market leader offering the Motor Coach Industries Inc. (MCI) J-Series, the industry's best-selling intercity coach for 11 consecutive years, and the MCI D-Series, the industry's best-selling motorcoach line in North American history. MCI is also the exclusive distributor of Daimler's Setra S 417 and S 407 motorcoaches in the United States and Canada. MCI actively supports more than 28,000 coaches currently in service.

NFI Group also operates North America's most comprehensive parts organization, NFI Parts[™], providing parts, technical publications, training and support for its OEM product lines (transit buses and motorcoaches). All buses and coaches are also supported by an industry-leading comprehensive warranty, service and support network. □

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