



POWERING POSSIBILITIES

December 17, 2108
Asheville, NC



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Our Dealership

The screenshot shows the Carolina Thomas website homepage. At the top, there is a navigation bar with links for 'Trouble Viewing?', 'DIRECTIONS', 'THOMAS BUS ONLINE LOGIN', and 'DTNA CONNECT LOGIN'. Social media icons for Facebook, YouTube, and a search icon are also present. The main header features the Carolina Thomas logo on the left, contact information in the center (6327 Burnt Poplar Rd | Greensboro, NC 27409; Ph: (336) 851-1718 | TF: 1 (800) 440-3492 (NC Only); Sales: M-F 8AM - 5 PM; Service | Parts | Body Shop: M-F 7AM - 5PM; After Hours: Contact Us), and three logos on the right: Platinum Suppliers, Thomas Built Buses, and EC Elkhart County.

Below the header is a red navigation bar with the following menu items: Home, Inventory, Sales, Service, Parts, Body Shop, Warranty, About, Resources, and Contact.

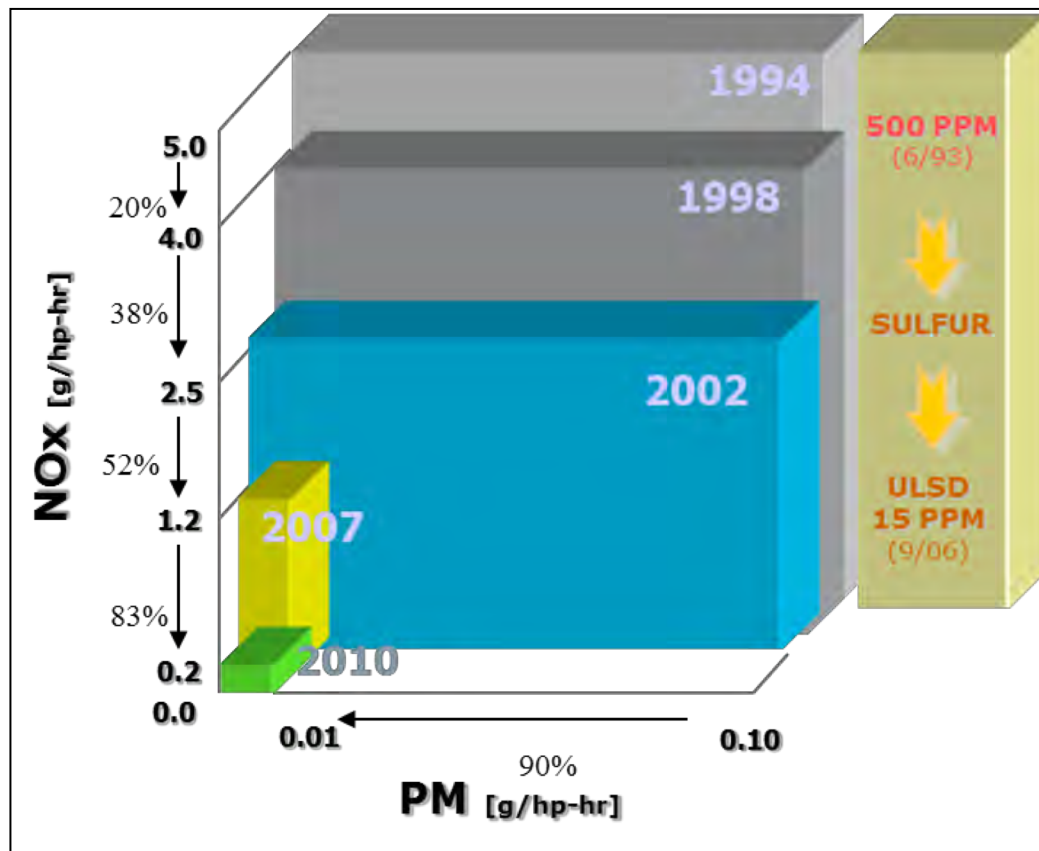
The main content area features a large image of two men standing in front of a white 'ACTIVITY BUS' at the Carolina Thomas dealership. On the left side of this image is a dark sidebar with four menu items: 'Bus Sales' (with a shopping cart icon), 'Service' (with a wrench icon), 'Parts' (with a gear icon), and 'Body Shop' (with a car icon).

Overlaid on the bottom right of the main image is a red box with the text: 'New & Pre-Owned Bus Sales. Find the right bus to meet your transportation needs and your budget. Our friendly sales professionals are here to help you.' Below this box are three links: 'New Bus Sales', 'Used Buses For Sale', and 'Bus Financing Solutions'.

At the bottom left of the main content area, the text reads: 'The Bus Professionals' followed by 'Bus Sales | Service | Parts | Body Shop'. Below this is a partial sentence: 'At Carolina Thomas, we go far beyond simply selling the highest quality, safest and most reliable...'. On the bottom right, there is a red button that says 'Search our Bus Inventory'.

In the bottom right corner of the browser window, there is a zoom level indicator showing '125%'.

History of Nox Reduction



A bus with an engine that predates the EPA98 emission standard emits 90% more NOx than trucks with current emissions engines

FACT:

All engines today have emissions that are well below federal emissions standards.

		NITROGEN OXIDES <small>(grams per brake hp per hour)</small>	PARTICULATE MATTER <small>(grams per brake hp per hour)</small>	CARBON MONOXIDE <small>(grams per brake hp per hour)</small>	NON-METHANE HYDROCARBON <small>(grams per brake hp per hour)</small>
2017 FEDERAL EMISSIONS STANDARDS		0.20	0.01	15.5	0.14
DIESEL	2018 CUMMINS B6.7	0.15	0.001	0.04	0.03
	2018 DETROIT™ DD5™	0.05	0.000	0.4	0.000
CNG	2018 CUMMINS B6.7N	0.08	0.000	3.00	0.01
PROPANE	2018 ROUSH V10	0.01	0.002	5.0	0.05
	2017 B.0L V8	0.16	0.003	5.6	0.09
GAS	2018 FORD V10	0.08	0.002	12.9	0.08
	2018 PSI 8.8L	0.04	0.002	3.7	0.08



*RESULTS ARE BASED ON FEDERAL TEST PROCEDURE (FTP) CYCLE.

FACT:

All engines currently meet or exceed EPA emissions regulations with further emissions improvements on the horizon.























FACT:

Even though CO₂ is not monitored by the EPA, it is still a greenhouse gas. Over the lifetime of the bus, diesel engines emit less CO₂ than propane or gasoline engines.

	GASOLINE	PROPANE	DIESEL
ENERGY CONTENT/US GALLON	118	98.7	134.5
TOTAL VEHICLE LIFE (MILES)	150,000	150,000	150,000
AVERAGE MILES/GALLON	4.50	4.00	8.50
ENERGY USE/MILE	26.22	24.68	15.82
GALLONS/LIFETIME	33,333	37,500	17,647
CO ₂ EMISSIONS/GALLON (LBS)	19.60	12.72	22.40
CO ₂ EMISSIONS/LIFETIME (LBS)	653,333	477,000	395,294




Product Portfolio

	Clean Diesel	Propane (LNG)	Natural Gas (CNG)	Electric (ZEV)	Gasoline
 HDX	  B6.7  L9		 L9N		
 EFX	 B6.7				
	 B6.7  B6.7 G	 488  P51 8.8L	 ISB6.7 G	 	
					 



 **DETROIT** **DD8**



 **DETROIT** **DD5**

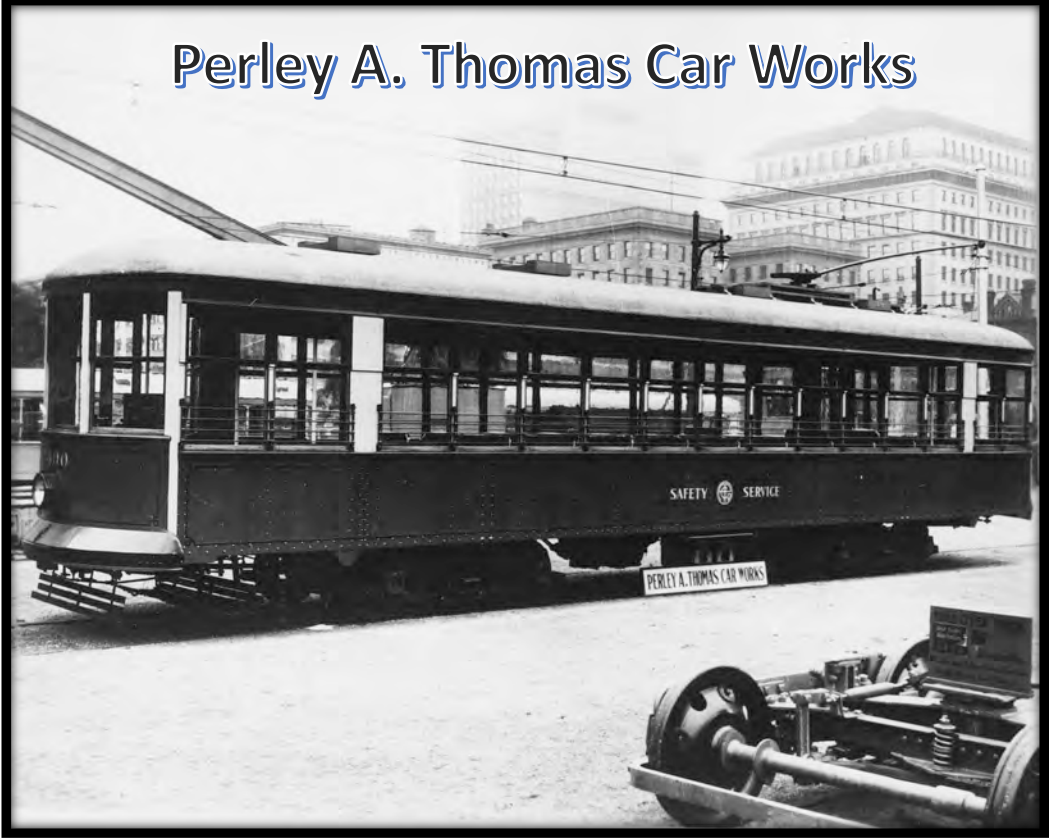
Detroit Connect Virtual Technician



- Engine issues are discovered before they cause downtime
- Analysis is provided by Detroit experts
- Money is saved by servicing vehicles only when needed
- Cost of ownership is improved
- Standard on Thomas Built Buses spec'd with Detroit DD5 and DD8 engines

With Detroit Connect Virtual Technician remote diagnostic service, fleet managers are notified within minutes that a vehicle has experienced a fault event, the severity of the fault, and how to best fix the issue.

Perley A. Thomas Car Works



SAF-T-LINER® eC2 ELECTRIC BUS

- ▶ **Innovating Pupil Transportation Industry**
- ▶ **Innovative** - All-electric bus powered by the Cummins PowerDrive™ 7000EV engine with 155kWh and up of battery energy
- ▶ **Expandable Mileage** – up to 120-mile range
- ▶ **State-of-the-Art Solutions**
 - Cummins PowerSuite™ - vehicle control software
 - Cummins PowerTracker™ telematics and diagnostics system - tracks bus location and real-time monitoring of potential issues
 - Cummins Power2E™ - exportable power

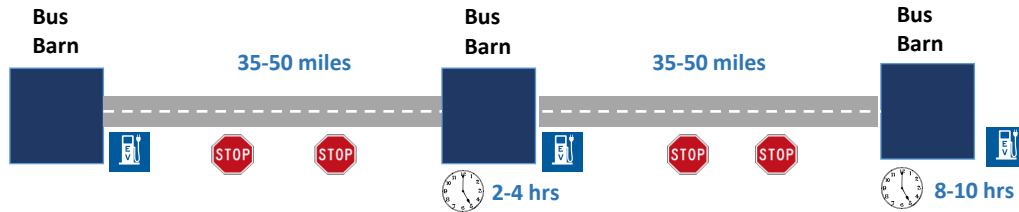


Charging pattern and infrastructure use case



School Bus

Day Operation with Overnight Charging & Mid-day Recharge



Example: School bus operates morning route with a return to Bus Barn for charging. After period of charging, school bus operates afternoon route with return to Bus Barn. After afternoon route, school bus is charged over night.



Contact Information

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