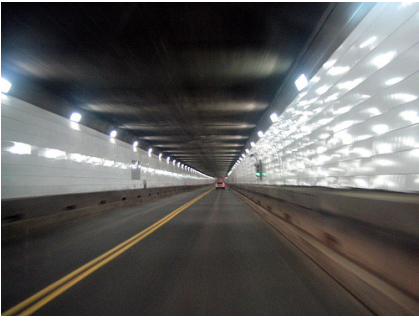


Detroit–Windsor Tunnel

| Detroit–Windsor Tunnel | |
|--|---|
|  | |
| Carries | 2 lanes connecting Jefferson Avenue (near I-375 and M-10) & Former Highway 3B |
| Crosses | Detroit River |
| Locale | Detroit, Michigan Windsor, Ontario |
| Maintained by | Detroit-Windsor Tunnel Company, LLC (jointly owned by City Councils of Detroit and Windsor) |
| Total length | 5160 feet (1573 m) |
| Width | 22 feet (7 m) |
| Vertical clearance | 13 feet (4 m) |
| Opened | 1930 |
| Toll | USD 4.00/CAD 4.50 (autos travelling into US) USD 4.00/CAD 4.75 (autos travelling into Canada) |
| Daily traffic | 13,000 vehicles |

The **Detroit–Windsor Tunnel** is an underwater highway tunnel connecting Detroit, Michigan in the United States, with Windsor, Ontario in Canada. It was completed in 1930.

It is the second busiest crossing between the United States and Canada after the nearby Ambassador Bridge. About 13,000 vehicles (cars, vans, buses) use the tunnel each day.^[1] The structure is jointly owned by the two cities. A 2004 Border Transportation Partnership study showed that 150,000 jobs in the region and \$13 billion (U.S.) in annual production depend on the Windsor-Detroit international border crossing.^[2]

When constructed, it was only the third underwater vehicular tunnel constructed in the United States (after the Holland Tunnel between Jersey City, New Jersey, and downtown Manhattan, New York City, New York and the Posey Tube between Oakland and Alameda, California).

Its creation was prompted by the opening of cross-border rail freight tunnels including the St. Clair Tunnel between Port Huron, Michigan and Sarnia, Ontario and the Michigan Central Railway Tunnel between Detroit and Windsor.

The Detroit–Windsor Tunnel is 120 feet (37 m) short of a mile at 5160 feet (1573 m). At its lowest point, the two-lane roadway is 75 feet (23 m) below the river surface.

The cities of Detroit and Windsor hold the distinction of jointly creating both the second and third underwater tunnels between two nations in the world. The Detroit–Windsor Tunnel is the world's third underwater tunnel between two nations, and the first international underwater vehicle tunnel. The Michigan Central Railway Tunnel, completed in 1910 also across the Detroit River, was the second tunnel between two nations. The St. Clair Tunnel, completed in 1891 between Port Huron, Michigan and Sarnia, Ontario was the first.

The tunnel is currently owned by Detroit–Windsor Tunnel LLC, which is a joint-venture between the City of Windsor and the City of Detroit, with both owning 50%. Detroit is considering selling its half of the tunnel to

Windsor to form a tunnel authority, although a recent mayoral scandal has put this plan in question.^[3]

Construction

The Detroit–Windsor Tunnel was built by the firm Parsons, Klapp, Brinckerhoff and Douglas (the same firm that built the Holland Tunnel).^[4] The executive engineer was Burnside A. Value, the engineer of design was Norwegian-American engineer Søren Anton Thoresen, while fellow Norwegian-American Ole Singstad consulted, and designed the ventilation.^{[5] [6]}

The construction method is immersed tube (sections of steel tube floated into place and sunk into a trench dug in the river bottom), as in the earlier Posey Tube. The tunnel sections have three main levels. The bottom level brings in fresh air under pressure, which is forced into the mid level, where the traffic lanes are located, and the third level is where the engine exhaust is forced into and vented at each end of the tunnel. Total cost was approximately \$25 million US dollars.^[7]

The river section of the tunnel was connected to bored tunnels on both banks. The tubes were then covered over in the trench by 4 to 20 feet (1.2 m to 6.1 m) of mud. Because the tunnel essentially sits on the river bottom, there is a wide no-anchor zone enforced on river traffic.

Tunnel Truck for Disabled Vehicles

When the tunnel first opened in 1930s the operators had a unique rescue vehicle to tow out disabled vehicles without having to back in or turn around to perform this role. The vehicle had two drivers, one facing in the opposite direction of the other. The vehicle was driven in, the disabled vehicle was hooked up, then the driver facing the other way drove it out. This emergency vehicle also had 600 foot of water hose with power drive and chemical fire extinguishers.^[8]

Traffic and tolls

Motorcycles are prohibited from the tunnel. The tunnel carries no commercial trucks beyond van-size except for armored cars; a municipal bus company uses the tunnel.^[9] The nearby Ambassador Bridge allows cars, motorcycles^[10] and trucks,^[11] all also upon payment of tolls.

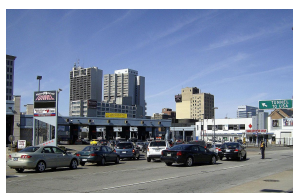
CKLW and the Tunnel

In the late 1960s, Windsor radio station CKLW engineered a wiring setup as allowed the station's signal to be heard clearly by automobiles travelling through the Tunnel.

Photo gallery



Point of international crossing is marked



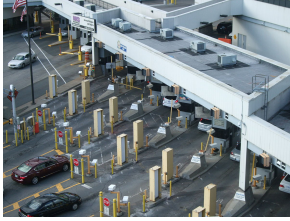
Entering from the Canadian side at Goyeau Street.



Entering from the American side at Jefferson Ave.



Transit Windsor's "Tunnel Bus" is a municipally operated bus that regularly crosses the border; it waits in Detroit as passengers go through U.S. Customs.



U.S. Customs and Border
Protection Checkpoint



Detroit portal of the tunnel



Video of drive through tunnel
from Windsor to Detroit

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- [2] Detroit Regional Chamber (2006) Detroit/Windsor Border Update: Part I-Detroit River International Crossing Study (<http://www.detroitchamber.com/detroiter/articles.asp?cid=7&detcid=531>)
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- [4] Detroit & Canada Tunnel Company 1929 (<http://www.collectstocks.com/detcantuncom.html>)
- [5] Bjork, Kenneth (1947), *Saga in Steel and Concrete: Norwegian Engineers in America* (<http://archiver.rootsweb.ancestry.com/th/read/NORWAY/2003-05/1051983030>), Norwegian-American Historical Association, pp. 191–202,
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- [7] "A \$25,000,000 Mile Tunnel" *Popular Mechanics*, December 1930, pp 889-890 ([http://books.google.com/books?id=qOIDAAAAMBAJ&pg=PA889&dq=Popular+Science+1930+plane+\"Popular+Mechanics\"&hl=en&ei=_7BITsWeBYTWgQf9mLiLCg&sa=X&oi=book_result&ct=result&resnum=10&sqi=2&ved=0CE8Q6AEwCQ#v=onepage&q&f=true](http://books.google.com/books?id=qOIDAAAAMBAJ&pg=PA889&dq=Popular+Science+1930+plane+\)) detailed article with photos and drawings on construction
- [8] "Tunnel Truck Has Two Front Ends." ([http://books.google.com/books?id=9ycDAAAAMBAJ&pg=PA71&dq=1930+plane+\"Popular&hl=en&ei=5SWNTvvhIM63tge6lc2DDA&sa=X&oi=book_result&ct=result&resnum=3&sqi=2&ved=0CEAQ6AEwAg#v=onepage&q=1930+plane+\"Popular&f=true\"](http://books.google.com/books?id=9ycDAAAAMBAJ&pg=PA71&dq=1930+plane+\)) *Popular Science*, November 1930, p. 71, bottom of page.
- [9] Tunnel toll rates (<http://www.dwtunnel.com/Rates.aspx>)
- [10] Ambassador Bridge auto toll rates (<http://www.ambassadorbridge.com/Auto/USTollRates.aspx>), company website, effective February 1, 2009. Retrieved 2011-11-24.
- [11] Ambassador Bridge auto toll rates (<http://www.ambassadorbridge.com/Commercial/USCTollRates.aspx>), company website, no effective date. Retrieved 2011-11-24.

External links

- Detroit & Windsor Tunnel Corporation - official website (<http://www.dwtunnel.com/>)
- Detroit News archives: The Building of the Detroit-Windsor Tunnel (<http://info.detnews.com/history/story/index.cfm?id=51&category=locations>)
- The Daily Commute: Tunnel Bus Blog (<http://blog.us2cdn.com>)
- Camera of the tunnel. (<http://216.8.159.21/view/index.shtml>)

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