

Elon Musk's new tunnel 'a little rough around the edges' (Update)

December 19 2018, by Amanda Lee Myers



Elon Musk, co-founder and chief executive officer of Tesla Inc., arrives in a modified Tesla Model X electric vehicle during an unveiling event for the Boring Company Hawthorne test tunnel in Hawthorne, Calif., on Tuesday, Dec. 18, 2018. Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube—the tech entrepreneur's answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)

Elon Musk unveiled his underground transportation tunnel on Tuesday,

allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube—the tech entrepreneur's answer to what he calls "soul-destroying traffic."

Guests boarded Musk's Tesla Model X and rode along Los Angeles-area surface streets about a mile (1.6 kilometers) away to what's known as O'Leary Station. The station, smack dab in the middle of a residential neighborhood—"basically in someone's backyard," Musk says—consists of a wall-less elevator that slowly took the car down a wide shaft, roughly 30 feet (9 meters) below the surface.

The sky slowly fell away and the surprisingly narrow tunnel emerged.

"We're clear," said the driver, who sped up and zipped into the tunnel when a red track light turned green, making the tube look like something from space or a dance club.

The car jostled significantly during the ride, which was bumpy enough to give one reporter motion sickness while another yelled, "Woo!"

Musk described his first ride as "epic."

"For me it was a eureka moment," he told a room full of reporters. "I was like, 'This thing is going to damn well work.'"

He said the rides are bumpy now because "we kind of ran out of time" and there were some problems with the speed of his paving machine.



Elon Musk, co-founder and chief executive officer of Tesla Inc., walks into the crowd during an unveiling event for the Boring Company Hawthorne test tunnel in Hawthorne, Calif., on Tuesday, Dec. 18, 2018. Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube—the tech entrepreneur's answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)

"It'll be smooth as glass," he said of future systems. "This is just a prototype. That's why it's a little rough around the edges."

Later in the day, Musk emerged from the tunnel himself inside one of his cars. He high-fived guests and pumped his fists in the air before delivering a speech in the green glow of the tunnel about the technology and why it makes sense.

The demo rides were considerably slower—40 mph (64 kph)—than what

Musk says the future system will run at: 150 mph (241 kph). Still, it took only three minutes to go just over a mile from the beginning to the end of the tunnel, the same amount of time it took to accomplish a right-hand turn out of the parking lot and onto a surface street even before the height of Los Angeles' notorious rush-hour traffic.

The tunnel is just a test to prove the technology works and could one day cure traffic.

Tuesday's reveal comes almost two years to the day since Musk announced on Twitter that "traffic is driving me nuts" and he was "going to build a tunnel boring machine and just start digging."



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"I am actually going to do this," he added in response to initial skepticism. Soon after, he began The Boring Company, tongue in cheek

intentional.

Since then, Musk has only revealed a handful of photos and videos of the tunnel's progress.

On Tuesday, he explained for the first time in detail just how the system, which he simply calls "loop," could work on a larger scale beneath cities across the globe. Autonomous, electric vehicles could be lowered into the system on wall-less elevators the size of two cars or spiral ramps. The elevators could be placed almost anywhere cars can go.

A number of autonomous cars would remain inside the tunnel system just for pedestrians and bicyclists. Once on the main arteries of the system, every car could run at top speed except when entering and exiting.

"It's much more like an underground highway than it is a subway," Musk said.



Lights illuminate tunnel boring equipment and the tunnel pit entrance during an unveiling event for the Boring Company Hawthorne test tunnel in Hawthorne, Calif., on Tuesday, Dec. 18, 2018. Elon Musk has unveiled his underground transportation tunnel, allowing reporters and VIPs to take some of the first rides in the subterranean tube, which the tech entrepreneur says is the answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)

Cars would have to be fitted with specially designed side wheels that pop out perpendicular to the car's regular tires and run along the tunnel's track. They would run about \$200 or \$300 a car, Musk said.

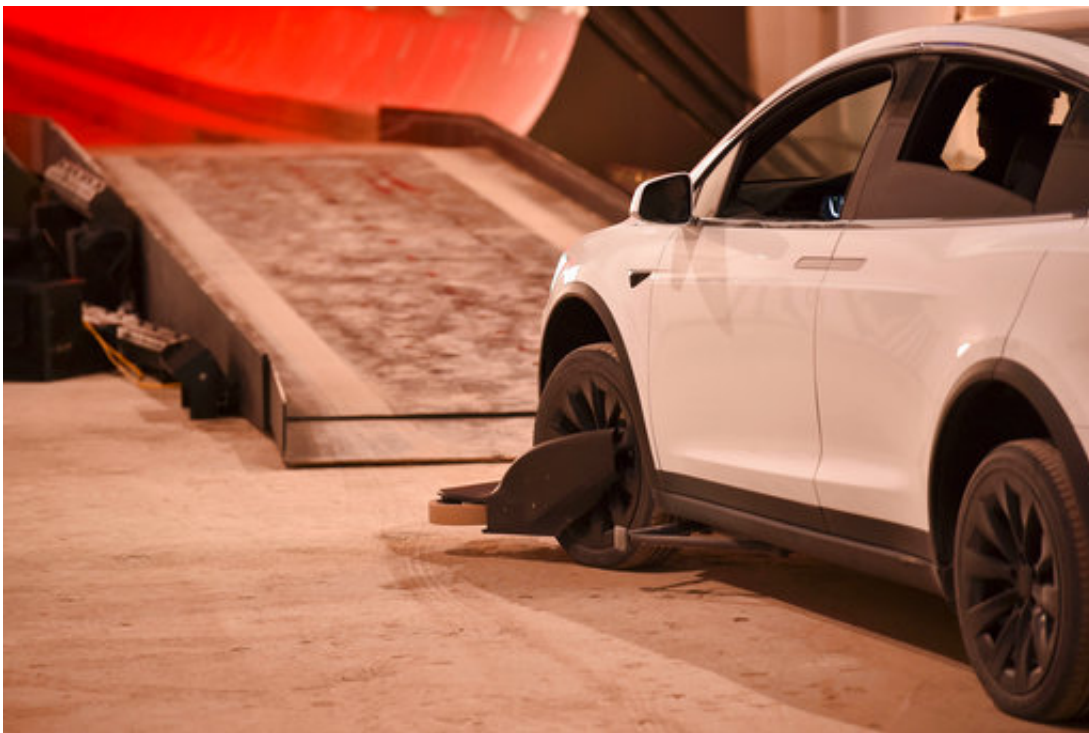
The cars would have to be autonomous to work in the system but not Teslas specifically, and they would have to be electric because of the fumes from gas, Musk said.

He said tunnels are the safest place to be in earthquakes—sort of how a submarine during a hurricane is safest beneath the surface—and

addressed other concerns such as the noise and disruption of building the tunnels, which he completely dismissed. When workers bored through the end of the test tunnel, for instance, the people in the home 20 feet (6 meters) away "didn't even stop watching TV."

Musk said it took about \$10 million to build the test tunnel, a far cry from the \$1 billion per mile his company says most tunnels take to build.

Musk has cut costs by improving the speed of construction with smarter tools, eliminating middlemen, building more powerful boring machines, and instead of hauling out all the dirt being excavated, Musk is turning them into bricks and selling them for 10 cents.



A modified Tesla Model X electric vehicle enters a tunnel before an unveiling event for the Boring Co. Hawthorne test tunnel in Hawthorne, Calif., on Tuesday, Dec. 18, 2018. Elon Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube—the tech

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"I really think this is incredibly profound," he said. "Hopefully that is coming across."

He reiterated the simplicity of all his ideas.

"No Nobel Prize is needed here," he said. "It's very simple."

And he's not doing it for the money, he said, adding that it's for the greater good. In his 16 years in Los Angeles, he said, traffic went from "the seventh level of hell to the eighth level of hell."

"Traffic is soul-destroying. It's like acid on the soul," he said to party guests who snacked on marshmallow treats and hot dogs and hoped for a turn in the tunnel.



A modified Tesla Model X drives in the tunnel entrance before an unveiling event for the Boring Co. Hawthorne test tunnel in Hawthorne, Calif., Tuesday, Dec. 18, 2018. Elon Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube - the tech entrepreneur's answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)



A modified Tesla Model X rests on an elevator above the pit and tunnel entrance before an unveiling event for the Boring Co. Hawthorne test tunnel in Hawthorne, Calif., Tuesday, Dec. 18, 2018. Elon Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube—the tech entrepreneur's answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)



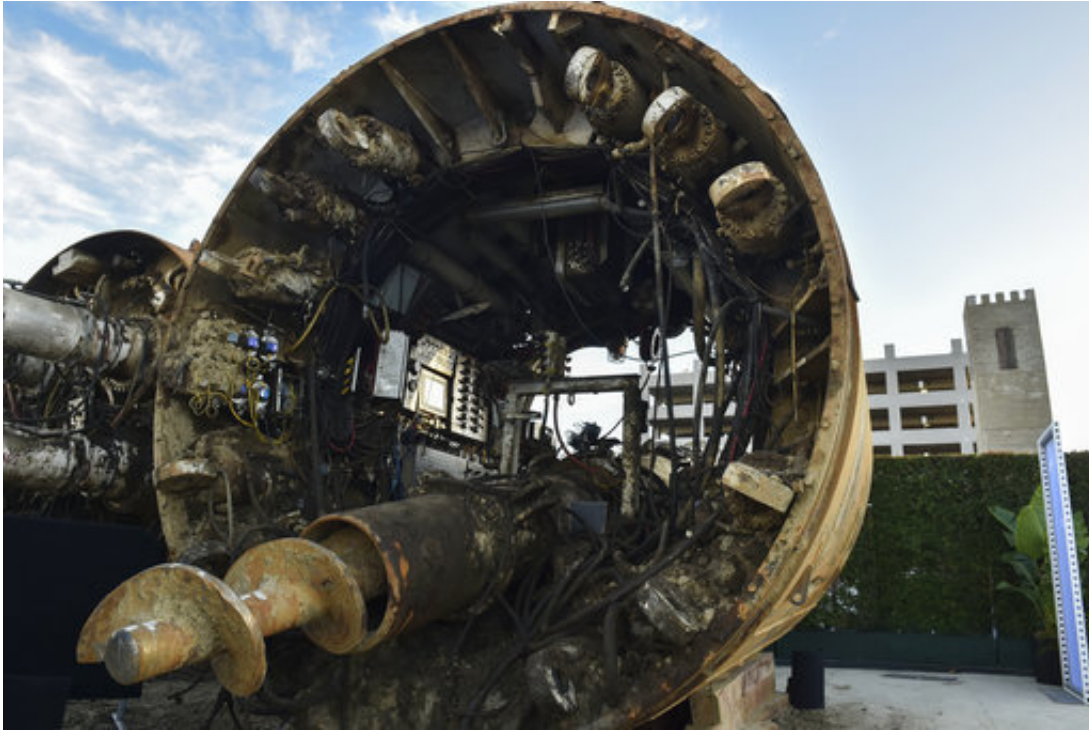
The Boring Company signage is displayed at the tunnel entrance before an unveiling event for the Boring Co. Hawthorne test tunnel in Hawthorne, Calif., on Tuesday, Dec. 18, 2018. Elon Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube—the tech entrepreneur's answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)



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Electric locomotives and tunnel boring equipment are displayed before an unveiling event for the Boring Co. Hawthorne test tunnel in Hawthorne, Calif., Tuesday, Dec. 18, 2018. Elon Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube - the tech entrepreneur's answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)



The "linestorm" second generation tunnel boring equipment is displayed before an unveiling event for the Boring Co. Hawthorne test tunnel in Hawthorne, Calif., Tuesday, Dec. 18, 2018. Elon Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube - the tech entrepreneur's answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)



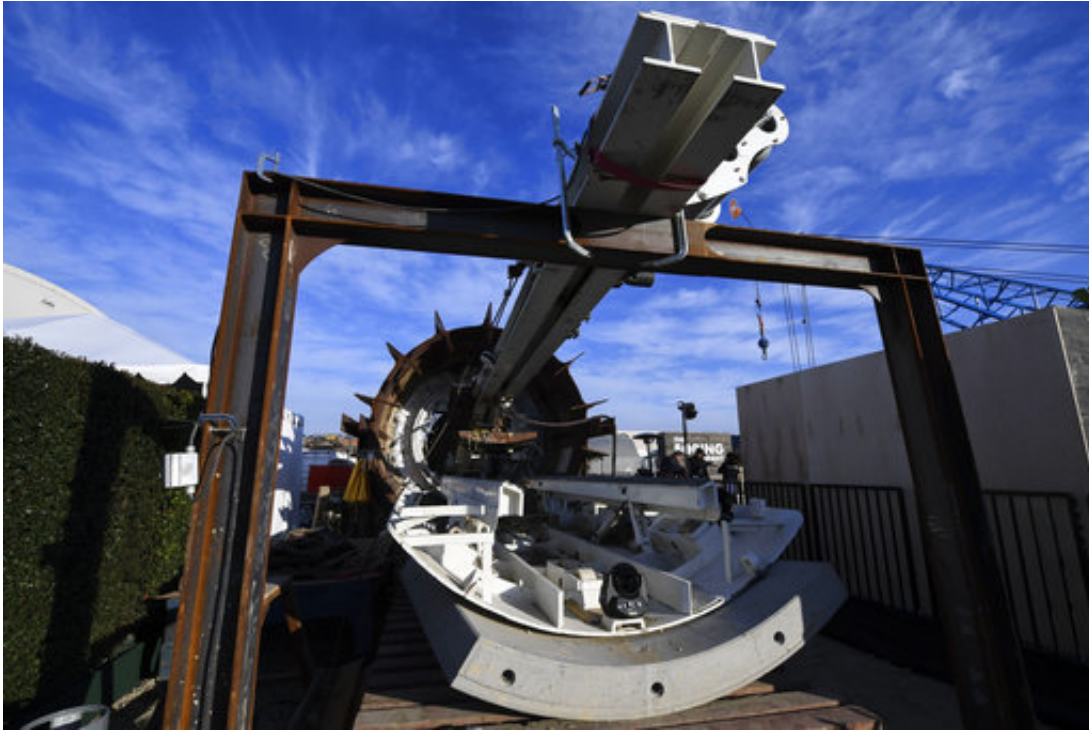
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A modified Tesla Model X rests on an elevator, right, above the pit and tunnel entrance before an unveiling event for the Boring Company Hawthorne test tunnel in Hawthorne, Calif., on Tuesday, Dec. 18, 2018. Elon Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube—the tech entrepreneur's answer to what he calls "soul-destroying traffic." (Robyn Beck/Pool Photo via AP)



Elon Musk, co-founder and chief executive officer of Tesla Inc., speaks during an unveiling event for the Boring Company Hawthorne test tunnel in Hawthorne, Calif., on Tuesday, Dec. 18, 2018. Musk has unveiled his underground transportation tunnel, allowing invited guests to take some of the first rides ever on the tech entrepreneur's solution to "soul-destroying traffic." The tunnel, meant to be a "proof of concept," runs just over a mile under Musk's SpaceX headquarters in Hawthorne. (Robyn Beck/Pool Photo via AP)



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The tunnel will not be open to the public for the foreseeable future, just for invited VIPs, Musk said, adding that regulations wouldn't allow for it to open widely for demo rides just yet.

Steve Davis, head of The Boring Company, said the interest in the tunnel systems has been significant—anywhere from five to 20 calls a week from various municipalities and stakeholders.

One project Musk is planning on, known as the Dugout Loop, would take Los Angeles baseball fans to Dodger Stadium from one of three

subway stations. Another would take travelers from downtown Chicago to O'Hare International Airport. Both projects are in the environmental review phase.

Musk said he thinks the Chicago project has the most potential to open soonest and that he's hoping an extensive network opens in Los Angeles before the city hosts the 2028 Olympics.

"Wouldn't it be incredible if you could travel around LA, New York, D.C., Chicago, Paris, London—anywhere—at 150 mph?" Musk said. "That'd be phenomenal."



Elon Musk, third left, co-founder and chief executive officer of Tesla Inc., walks through the crowd during an unveiling event for the Boring Company Hawthorne test tunnel in Hawthorne, Calif., on Tuesday, Dec. 18, 2018. Musk unveiled his underground transportation tunnel on Tuesday, allowing reporters and invited guests to take some of the first rides in the revolutionary albeit bumpy subterranean tube—the tech entrepreneur's answer to what he calls "soul-

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The Boring Company canceled its plans for another test tunnel on Los Angeles' west side last month after a neighborhood coalition filed a lawsuit expressing concerns about increased traffic during construction.

Musk's vision for the underground tunnels is not to be confused with another of his transportation concepts known as hyperloop. That would involve a network of nearly airless tubes that would speed special capsules over long distances at up to 750 mph (1,200) kph), using a thin cushion of air, magnetism and solar power.

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