SUBWAY 101

projectconnect

Project Connect's Subway will separate the proposed Orange and Blue Line light rail service from street traffic, enabling faster, safer and more reliable travel.

RIDER ADVANTAGES

IMPROVES SAFETY AND REDUCES TRAVEL TIME

Places light rail trains below ground and out of conflict with emergency vehicles, cars, bikes and pedestrians.

SERVICE RELIABILITY

With fewer conflicts, light rail service is more reliable and convenient.

SUBWAY ADVANTAGES

PROVIDES ECONOMIC OPPORTUNITIES

Underground subway stations could create placemaking opportunities for public art, air-conditioned public environments and more.

PROMOTES LONG-TERM, COST-EFFECTIVE TRANSIT EXPANSION

As the city grows, underground subways will allow for future growth with more frequent service.

SUBWAY CHALLENGES

LONGER CONSTRUCTION TIMES

At-grade or elevated rail options may take less time to construct than a tunnel.

SPECIALIZED EQUIPMENT

Requires sophisticated equipment, skilled labor and technical supervision.

CONSTRUCTION DISRUPTION

Causes noise, vibration, truck traffic and utility relocations during construction.

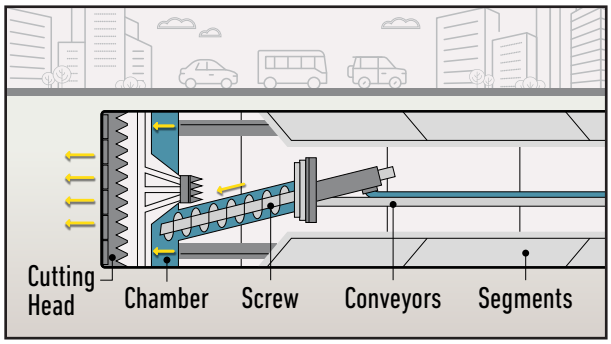
SUBWAY SAFETY

NATIONAL STANDARDS

Tunnels will include systems for fire life safety, communications, power and emergency exits and will be designed to meet National Fire Protection Association standards for Fixed Guideway Transit and Passenger Rail Systems.

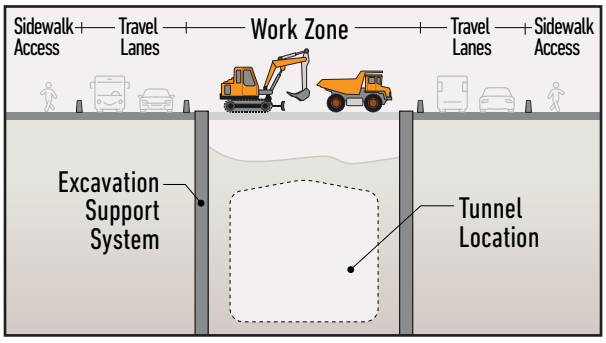
TYPES OF TUNNELS

Project Connect includes two proposed types of tunnels.



BORED TUNNEL

A Tunnel Boring Machine (TBM) avoids needing to dig from the surface by boring a tube-like passage underground. The TBM excavates and supports the surface at the same time, applying a reinforced concrete lining to the tunnel walls as it moves forward. A conveyor belt system moves excavated materials out of the way, where they can be treated as needed and either reclaimed or disposed of.



CUT-AND-COVER TUNNEL

This construction method uses an open-cut excavation in the street right-of-way. Excavation occurs at the street level down to the tunnel floor, and a reinforced concrete box structure is installed for rail tracks and underground stations. Cut-and-cover tunnels require vehicle and pedestrian traffic management, utility relocation and soil and rock mechanical excavation.

TUNNEL CONSTRUCTION

Project Connect tunnel construction is anticipated to begin in 2025 and will be completed in phases. A number of factors will be considered as Orange and Blue Line design advances.

CONSTRUCTION LOGISTICS

Factors like station locations, public access, emergency facilities, transit connectivity and needed streetscape improvements help inform the optimal tunnel construction method.

Other factors like ground and ground water conditions and soil and rock strength surrounding the proposed tunnel site can also impact construction.

NOISE AND VIBRATION

Construction impacts such as noise, vibration, air quality and ground movement will be continuously monitored and mitigated.

Contractors may limit work during certain times, limit activities on holidays, or use specialized equipment to reduce construction impacts. These details will be available as the project moves forward.

TRAFFIC IMPACTS

Traffic control plans will be developed to maintain traffic flow during construction. The project team will work closely with adjacent homes and businesses to limit traffic impacts and provide construction information community-wide through various sources such as local news outlets, social media and the Project Connect website.

WANT TO LEARN MORE? ProjectConnect.com

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