The billion-dollar transformation of Canada's busiest transportation hub

It's been under way for two years and won't be finished for another three, but the renovation of Union Station will see a nearly century-old building adapted to better handle the tens of millions of people who travel through it each year. As Oliver Moore reports, all of the work is being done without closing the building - a marvel of architectural and urban planning.

To see a detailed Globe and Mail interactive of the Union Station project, visit www.globeandmail.com/union-station

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**An architectural feat: Fixing columns one by one**

One of the biggest parts of the renovation hasn't been visible to the public - the diligent work being done by teams on the train tracks. These concrete pillars are bigger around than most trees and have stood for decades on heavy burlap, deep in the ground. Their bases were recently cut off, then milled down and floated to the platform level.

The columns will be removed in a packet of columns from the western part of the station just south of Bay Street, but the work will take place around the base, under the tracks, or closing passenger access to platforms.

As trains continued to overlap overhead, while one group of workers would replace the concrete columns, another group would be suspended from the roof on steel cables and cut the old columns to repair rain and snow water.

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**The pièce de résistance: A glass atrium**

The most striking difference in the Union Station redesign involves the train shed, which covers the main platforms and tracks. This area, traditionally the grandest part of the station, is getting a brighter glass atrium.

Right now, the train shed has what is known as a steel and glass roof, which is a good design, a low one, for the day and age. Skylights weren’t included and the lack of natural light makes the space gloomy, about which passengers have long complained.

The new glass atrium will be a big step toward a lighter, more airy space, with the ceiling handing down to the tracks and platforms.

The atrium is being designed by Pritzker Prize-winning firm Herzog & de Meuron, which is known for its light, airy spaces. The new atrium will have a total area of 8,500 square metres, including the platform level, and will be supported by 44 landmark steel columns.

The atrium roof: Total area - 8,500 square metres
- Height above platform - 8 metres
- Height above street level - 15 metres

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**U plan Station: Welcome to the hub of the station**

Today's story is set at the historic Toronto train station, which is the heart of the city's transportation network. In this edition, we explore the transformation of the station, focusing on the renovation efforts led by the Toronto Transit Commission (TTC) and the Union Station Redevelopment Corporation (USRC).

The station was originally designed by the firm of E.J. Schultze and L.B. Keating in 1913, and its construction was completed in 1926. Over the years, the station has undergone several renovations, but the current one is the most significant to date.

**THE FACADE**

The station officially opened in 1927.

**THE GROUND LEVEL**

The station is located on a flat area, with the station entrance at street level.

**THE SUBWAY STATION**

The station has a single level and is served by the Yonge–University–Spadina Line (YU) of the TTC.

**THE CONCOURSE**

The concourse is located on the mezzanine level and connects to the station's main platforms.

**THE PLATFORMS**

The station has 12 platforms, with four track pairs on each level.

**THE GLASS ATRIUM**

The glass atrium will be a central feature of the station, providing a bright and airy space for passengers.

**THE ROOF**

The new station will feature a roof with a glass and steel structure, providing natural light and a modern look.

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**The story of the station**

Union Station is a significant part of Toronto's history, having been a hub for transportation since its opening in 1927. The station was designed by the firm of E.J. Schultze and L.B. Keating, and its construction was completed in 1926. Over the years, the station has undergone several renovations, but the current one is the most significant to date.

The station was originally designed to handle the needs of the growing city, and it quickly became a central part of Toronto's transportation network. In the early 20th century, the station was one of the busiest in the world, with over 60 million passengers passing through it each year.

**The renovation**

The renovation of Union Station is one of the largest and most significant in the city's history. The project involves the complete transformation of the station, with new amenities and features designed to improve the passenger experience.

The renovation is being led by the Toronto Transit Commission (TTC) and the Union Station Redevelopment Corporation (USRC). The project is expected to be completed in 2024.

**The future of the station**

With the completion of the renovation, Union Station will once again be a centerpiece of Toronto's transportation network. The station will feature a new glass and steel roof, a modernized concourse, and a range of new amenities and features designed to improve the passenger experience.

The station will also feature a new glass atrium, which will be a central feature of the station, providing a bright and airy space for passengers. The atrium will be supported by 44 landmark steel columns, and it will be a significant feature of the station's new design.

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**The story in numbers**

- Total project cost: $1.1 billion
- Project timeline: 3 years
- Number of platforms: 12
- Number of track pairs: 4
- Total area: 8,500 square metres
- Height above platform: 8 metres
- Height above street level: 15 metres
- Number of passengers: 60 million per year

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**The conclusion**

The renovation of Union Station is a significant project that will transform one of Toronto's most iconic buildings. The new design will provide a modern and efficient space for passengers, while also preserving the station's historical significance. The project is expected to be completed in 2024, and it will be a major milestone in the city's transportation network.

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**Additional resources**

- Toronto Transit Commission website: www.ttc.ca
- Union Station Redevelopment Corporation website: www.unionstation.ca
- The Globe and Mail website: www.globeandmail.com