



May 2018

PROJECT OVERVIEW

The USD 700 million Paseo del Bajo project is a transformative road corridor project being developed by the City of Buenos Aires (CABA) in Argentina to ease traffic and improve connectivity between the North and South areas of the city.

It will be CABA's largest construction work in over 35 years and is part of the CABA government's Public Works Plan for 2016-2019, in line with Argentina's substantial national infrastructure investment program. The corridor will consist of an innovative "trench" (also known as a "cut-and-cover") tunnel design, the first of its kind in Argentina, as well as managed lanes¹ and new public green spaces.

The highway corridor will be 7.1km long and will connect the Illia Highway with two of the city's busiest roadways, the 25 de Mayo and Buenos Aires-La Plata Highways. More than 25,000 private cars and heavy vehicles cross the city centre every day without this being their final destination, generating congestion, longer travel times and higher levels of environmental and noise pollution. The corridor will allow traffic to be redistributed away from crowded city areas, particularly helping to alleviate heavy traffic on the Madero-Huergo and Moreau de Justo Avenues, as well as provide more direct access to the Port of Buenos Aires (Port) and the Retiro Bus Terminal.

PROJECT HIGHLIGHTS

- The City of Buenos Aires' largest construction work in over 35 years.
- The first "cut-and-cover" tunnel design in Argentina.
- The first Argentinian highway operated by a "barrier-free" or "free flow" toll system.
- Potential engineering and construction challenges alleviated by the division of the construction works into three separate (but simultaneous) construction contracts.
- Specific law (Law 5796, see 'Legislative Environment' section) passed to authorise the sale of pre-determined plots of public land, with the proceeds to go towards financing the project.

The regulator for the public project is the Ministry of Urban Development and Transport within the CABA government, whilst state-owned concessionaire Autopistas Urbanas S. A. (AUSA) is the project manager, and responsible for operations and maintenance. The project will be part of the overall urban highway system, so the concession period will be the same as AUSA's general concession for the system, which ends in 2029.

¹ Managed lanes are defined as "highway facilities or a set of lanes where operational strategies are proactively implemented and managed in response to changing conditions". Lane management strategies include pricing, vehicle eligibility and access control. (See U.S. Department of Transportation Federal Highway Administration, "Managed Lanes: A Primer", available at https://ops.fhwa.dot.gov/publications/managelanes_primer/)

The construction of the project has been divided into three separate contracts, each contracted to different consortiums but to be completed simultaneously, with total construction expected to take up to 28 months. Construction began in January 2017 and is expected to be completed in April 2019.

Part of the project will be financed through the sale of unused areas in Buenos Aires, particularly public plots of land close to the Retiro Terminal and Puerto Madero. Under Law 5796, promulgated on March 29 2017 specifically for this project, the CABA government will sell pre-determined plots of land to re-invest in the Paseo del Bajo project as a grant, to reduce dependence on the public budget. The remainder of the project will be financed with a loan from the Development Bank of Latin America (CAF), endorsed by the Federal Argentinian government. It will be funded by the CABA government's Highway Toll Collection system, with the Paseo del Bajo project being the first Argentinian highway operated by a "barrier-free" or "free flow" toll system.

EXPECTED PROJECT BENEFITS

The Paseo del Bajo project has been declared as one of the most important road works projects conducted in the city of Buenos Aires for decades, and it is expected to create numerous economic, social and environmental benefits for the residents of Buenos Aires. AUSA has conducted extensive engagement with the various stakeholders to the project, including the Ministry of Urban Development and Transport, the State Property Administration Agency (AABE), the Ports Administration Agency (AGP) and the Secretary of Transportation, as well as residents, workers and business owners in the local communities through which the project will pass. AUSA established a specific stakeholder engagement team for this purpose, Relaciones con la Comunidad, which has conducted hundreds of community consultations.

The expected benefits of the project are highlighted below:

- Improved North-South connectivity, creating a unified Buenos Aires. It is expected that the project will directly benefit approximately 350,000 people (passengers and pedestrians) every day.
- Reduced traffic congestion across the city, resulting in significant travel time savings for more than 25,000 vehicles a day, including almost 10,000 trucks. Trucks will take an expected 10 minutes to complete a cross-city journey, which currently takes 45 to 60 minutes.
- Reduced noise and air pollution, due to the fact that heavy vehicles will be below ground (see 'Project Design' section). Light transit vehicles will also benefit from shorter vehicle stopping times and the maintenance of a constant speed, further contributing to reduced pollution.
- Enhanced vehicular and pedestrian safety, through the reconfiguration of traffic and separation of vehicle types, as well as safer pedestrian crossings.
- 60,000m² of new public spaces, 35,000m² of which will be green areas from which the public can benefit, including cycle paths to encourage recreation and sustainable mobility. This will contribute significantly to the city's commitment of reaching 250km of bike lanes and 400 EcoBici² stations by 2019.
- Integration with the transport system of the metropolitan region, increasing regional competitiveness.
- Reduction of logistics costs associated with foreign trade due to more efficient access to the Port of Buenos Aires.

² EcoBici is a free-to-use bicycle-sharing system in Buenos Aires.

PROJECT TIMELINE

Key dates in the project timeline are shown below:

- April 2016**
CABA government announced the project and the Data Room was opened for potential bidders to view technical documents.
- May 2016**
Tender opened and published in newspapers.
- July 2016**
CAF approves USD 400 million loan for the project.
- September 2016**
Data Room deactivated and bidding process launched.
- December 2016**
Bidding process ends and the three separate construction contracts are awarded.
- January 2017**
CAF loan contract is signed by the Government of the Republic of Argentina.
- January 2017**
Construction for the project begins.
- March 2017**
Law 5796 is promulgated, defining which public areas will be sold to finance the project.
- October 2017**
The first plots of land determined by CABA to be sold are auctioned, with the proceeds to go towards the project.
- December 2017**
Two further plots of land are sold to finance the project.
- April 2018**
One more plot of land is auctioned.
- April 2019**
Expected completion of construction.

CONTRACTUAL STRUCTURE

As noted in the Project Overview, the construction of the Paseo del Bajo project has been divided into three packages or “Blocks”, each contracted to a different construction consortium.

Regulator: Ministry of Urban Development and Transport		
Project Manager: AUSA		
Operations and Maintenance: AUSA		
Maintenance of Public Spaces: Puerto Madero Corporation		
BLOCK A	BLOCK B	BLOCK C
Construction: JCR S.A. and Coarco S.A. (JV) Construction Supervision: Consulbaires Ing. Consult S.A. and Consult O Grimaux y Asoc. S.A. Técnica	Construction: Green S.A. and Construcción Electromecánicas del Oeste S.A. (CEOSA) (JV) Construction Supervision: Ingeniería y Economía del Transporte S.A.	Construction: IECSA and Fontana Nicastro (JV) Construction Supervision: Euroestudios SL

LEGISLATIVE ENVIRONMENT

On March 29 2017, Law 5796 of the Autonomous City of Buenos Aires (CABA) was passed³. This legislation authorised the State Property Administration Agency (AABE), in agreement with the Ministry of Transportation of Argentina and the CABA government, to define exactly which public areas or plots of land would be sold to finance the Paseo del Bajo project. The law also stipulates that the CABA government and the Argentinian National Government must guarantee the urban integration of the project with the city.

Under this law, CABA approves the registration of properties as private domains of the Argentinian National Government, as well as their rezoning. AABE grants the property titles and their corresponding registration for auction on behalf of the Argentinian National Government.

Following this, AABE is required to conduct a public auction of the properties over a maximum period of 24 months from the date of rezoning. The properties were revalued following their rezoning by the Tribunal de Tasaciones de la Nación at almost USD 150 million, which will inform the bidding at the public auctions.

The law specifies that the proceeds of the auctions can only be used to finance the Paseo del Bajo project. Item 2.5 of Law 5796 requires that once the auctions have been conducted and all proceeds have been received, the Ministry of Urban Development and Transport will reinvest, at a minimum, these proceeds in the construction of the project.



Image courtesy of AUSA

³ Annex VIII of Law 5796 is specifically relevant to the Paseo del Bajo project.

FINANCING

The project will be 57% financed by a loan from the Development Bank of Latin America (CAF), signed in agreement with the Federal Government of Argentina. The remainder of the finance is to come from the government of the City of Buenos Aires.

The CAF loan is part of CAF's commitment to the development of infrastructure in Argentina, which includes sovereign financing operations of up to USD 2 billion in the 2016-2019 period for infrastructure works and social development. It will have a 15-year tenor with a four-year grace period.

The CABA government will finance the project through the sale of public areas, the proceeds of which will go directly to financing the construction of the Paseo del Bajo project. At the end of October 2017, the CABA government collected approximately USD 80.7 million from the sale of two plots of land (Plots 4 and 5) as part of the Catalinas Norte II project. This project has a total of seven plots of land to be auctioned, the proceeds of which will all go towards the Paseo del Bajo project. In December 2017, Plot 6 was awarded for USD 50.1 million, with Plot 7 also sold later that month for USD 50 million. More recently, in April 2018, a fifth plot of Catalinas Norte II was sold for just over USD 25 million. The final two plots will be auctioned later this year.

FINANCING SOURCES	AMOUNT (USD MILLION)
Debt Financing	
Development Bank of Latin America (CAF) Loan	400
Total Debt Financing	400
Grants	
City of Buenos Aires (CABA) Government	300
Total Grants	300
Total Financing	700

The project will be funded by user-charges with the CABA government's Highway Toll Collection system, through a unique model under which AUSA allocates 55% of its total toll revenue to develop the roads and other mobility works under its concession.

PROJECT DESIGN

The new highway will consist of 12 lanes, four of which are underground in an open "trench" tunnel, free of traffic lights, and reserved exclusively for heavy vehicles, such as trucks and long-distance buses. The tunnel will have two lanes running in each direction. Heavy vehicles will be able to enter the tunnel directly from the Buenos Aires-La Plata Highway (officially called the Autopista Doctor Ricardo Balbín) in the South and cross the city without traffic lights to the Retiro Bus Terminal or Port in the North. The highway will use Intelligent Transportation System (ITS) technology to ensure that the correct type of vehicle is using the correct lane.

Running alongside the tunnel, along the existing Alicia Moreau de Justo and Madero-Huergo Avenues, will be eight lanes, four running north and four running south. These lanes will be reserved for light transit, such as cars and short-distance buses, with differing speed limits to control traffic. Two lanes will have a maximum speed of 60 km/hour and two will have a maximum speed of 40 km/hour.

The Paseo del Bajo will also include new public spaces and green areas, located on the sides of the light vehicle lanes and above the "trench" tunnel. The Parque del Bajo will be developed with a total area of 102,000m² open to the public, including widened footpaths, urban furniture, cycle paths, children's play areas, and exercise facilities. There will be 60,000m² of new public spaces, of which 35,000m² will be green areas.

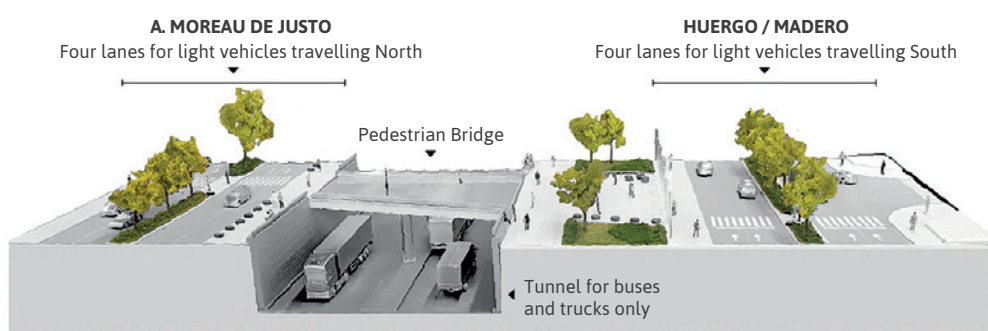


Image courtesy of Buenos Aires Cuidad (www.buenosaires.gob.ar) via La Nacion

CONSTRUCTION

The Paseo del Bajo project is a huge challenge from an engineering perspective, because it crosses through one of the busiest and oldest areas of the city. It is anticipated that this will create some challenges during the construction phase, including the relocation of two pipelines, the proximity of the river to construction, and the presence of main gas pipes, sewers and electricity.

To facilitate construction, the project was separated into three construction contracts; Block A, B, and C. These will be executed simultaneously with the same 28-month completion term. Block A work encompasses the construction of the viaduct sections at both the North and South end of the Paseo del Bajo. The 700m long South viaduct stretches from the intersection of the 25 de Mayo and Buenos Aires–La Plata Highways to the beginning of the “cut-and-cover” road tunnel, between Humberto Primo and Carlos Calvo. The 2.3km long North viaduct passes along Avenue de los Inmigrantes until its connection with the Illia Highway.

The contract for Block B involves the construction of the semi-covered trench at the South end of the Paseo del Bajo. This section is 1.5km long and runs between Humberto Primo, Carlos Calvo and Bartolomé Mitre. The contract for Block C involves the construction of the semi-covered trench at the North end of the project. This section is 2.5km long and starts from the end of the previous section at Bartolomé Mitre and extends up to the beginning of the North viaduct, passing Avenue de los Inmigrantes. The trenches will have a depth of 5.1 metres and a corridor width of 25 metres. The walls of the tunnel will be made with cast wall technology.

To facilitate construction of the project, there will be numerous road closures during the construction period, implemented by AUSA. Regular public transport routes will also be diverted temporarily.



Image courtesy of AUSA

Appendix

PASEO DEL BAJO ROUTE

The corridor will begin in the South of the City at the junction of the 25 de Mayo and the Buenos Aires-La Plata (Ricardo Balbín) Highways. At this junction, the roadways will be built as viaducts, which will descend in height until they reach Carlos Calvo and Humberto Primo, at which point the road will go below the surface of the ground to form the “cut-and-cover” tunnel. The semi-covered trench at the South end (part of the Block B construction contract) of the project will be constructed at Estados Unidos street. At this point, there will also be four pedestrian crossings

to facilitate access to Puerto Madero. Behind the Casa Rosada, the trench will become a deep covered tunnel. The covered sections of the trenches will be transformed into green spaces. At the Avenue Ramos Mejía, the tunnel will begin to rise again until it emerges to the road’s surface. At this point, there will be an entrance and exit to the Retiro Terminal. After this, the corridor will continue on an elevated viaduct, leading to the Port and eventually connecting with the Illia Highway and Retiro Toll junction in the North of the city.

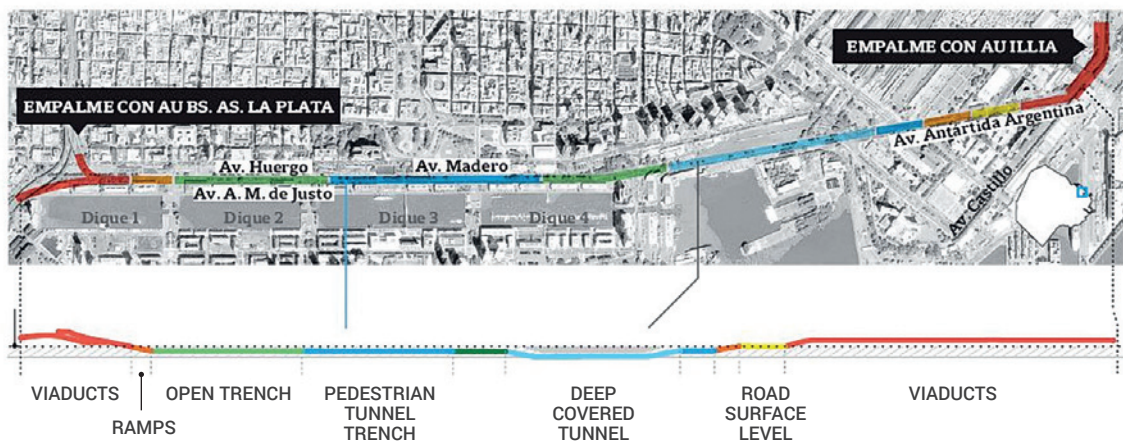


Image courtesy of Buenos Aires Ciudad (www.buenosaires.gob.ar) via La Nacion

ARTIST'S IMPRESSION



Image courtesy of AUSA

ARGENTINA'S INFRASTRUCTURE PLAN

Since President Mauricio Macri, former Mayor of the City of Buenos Aires, took office as Argentinian President in December 2015, one of the main priorities of his administration has been to implement an infrastructure plan to help boost economic competitiveness, with a heavy focus on energy and transportation. In 2016, the Argentinian Ministry of Transport announced a USD 33 billion infrastructure investment program to be completed in 2019. The program aims to invest in five main transportation segments: the cargo rail network, roadways, ports, airports, and urban transportation infrastructure. Overall, the investment program will constitute the largest transportation infrastructure plan in the country's history over a four-year period.

In line with the national investment program, the CABA government has also implemented its Public Works Plan for 2016-2019, which requires investment of approximately USD 1.8 billion and will involve projects in infrastructure, housing, water and health initiatives. The plan includes 838 projects, of which the Paseo del Bajo project is one.



Additional details on the Paseo del Bajo project can be found at:

<https://www.ansa.com.ar/novedades/paseodelbajo/>

<http://www.buenosaires.gob.ar/planeamiento/visionciudad/paseo-del-bajo>

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