



METRO
BOGOTÁ



MOVIUS
U.T. MOVILIDAD URBANA SOSTENIBLE

L2MB

Bogotá's Metro Line 2

Disclaimer

This presentation contains Bogotá Metro Line 2 project's preliminary information. Its sole purpose is to socialize the Project and give a summary of the progress of the structuring process, and it may be completely adjusted or modified without notice. Furthermore, the information contained herein is merely referential and in no case may it be understood as official or definitive.

This presentation does not constitute an offer, or invitation, or solicitation of an offer from EMB. Neither this presentation nor anything contained herein shall form the basis of any contract or commitment whatsoever.

This presentation does not commit or imply any responsibility, in any event, and under any circumstances, of the EMB, the FDN, the District of Bogotá, its employees, consultants, or advisors, nor can it, in any case, be understood as an advisory.





General Context



Project Scope



**Design and Technical
Definitions**



**Rolling Stock and
Railway Systems**



General Schedule



Transaction Structure



Next Steps



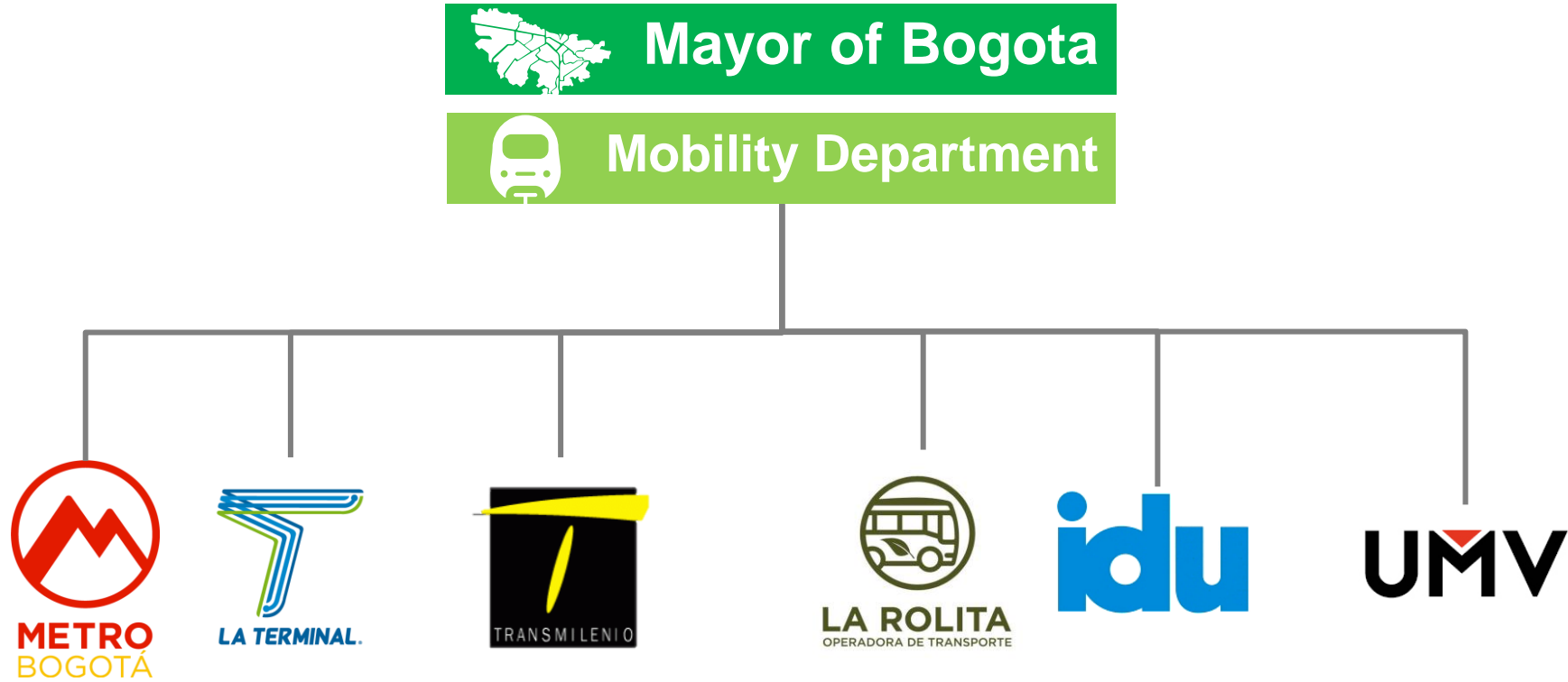
Table of Contents



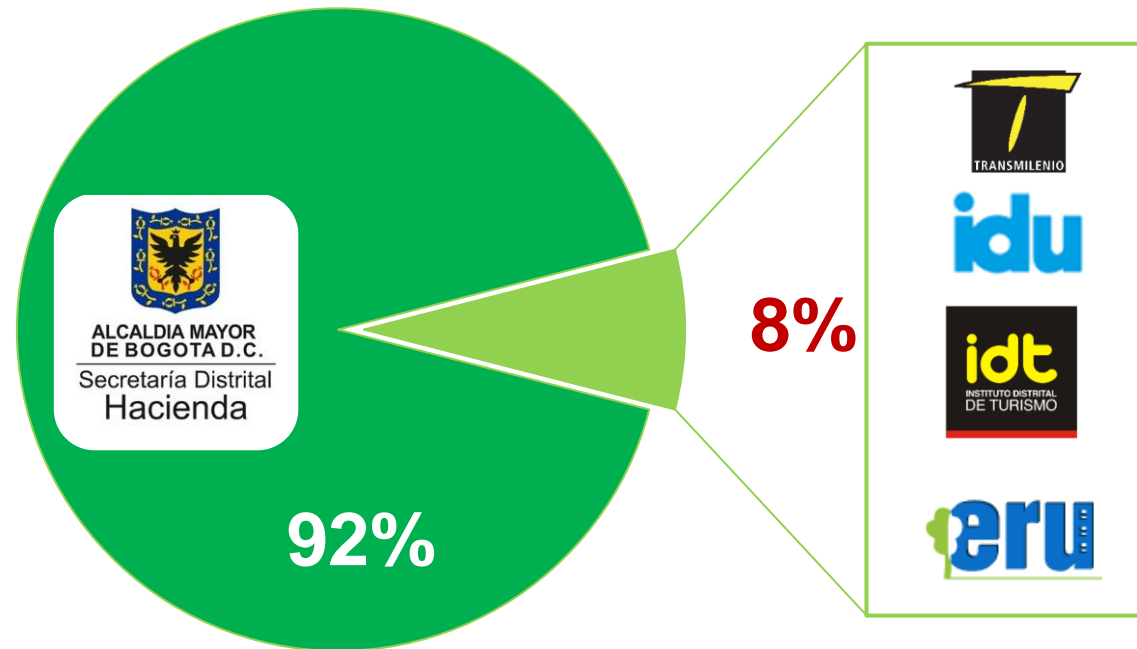
General Context



Institutional



EMB Shareholders



Board of Directors

**3 Members from
National Government**



**3 Members from
District of Bogota**

**3 Independent
members**



Financiera de Desarrollo Nacional - FDN

Strengths

Strong and independent governance

- Multilaterals veto for critical decisions
- Independent board members majority
- CEO appointed by the board

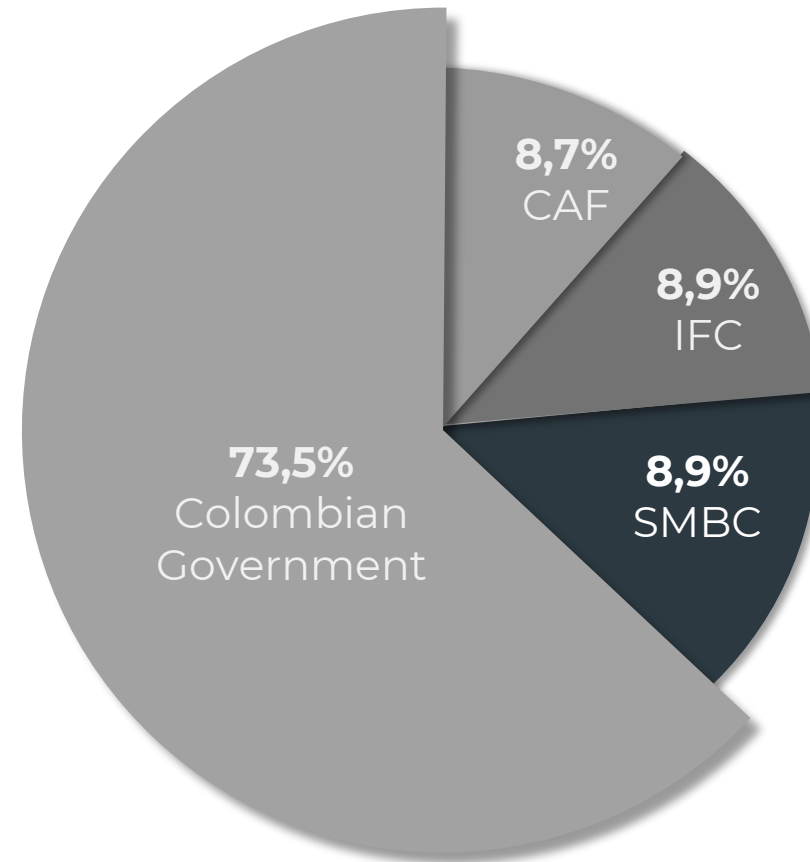
Private regime

- High quality staff
- Efficient procurement process

Specialization

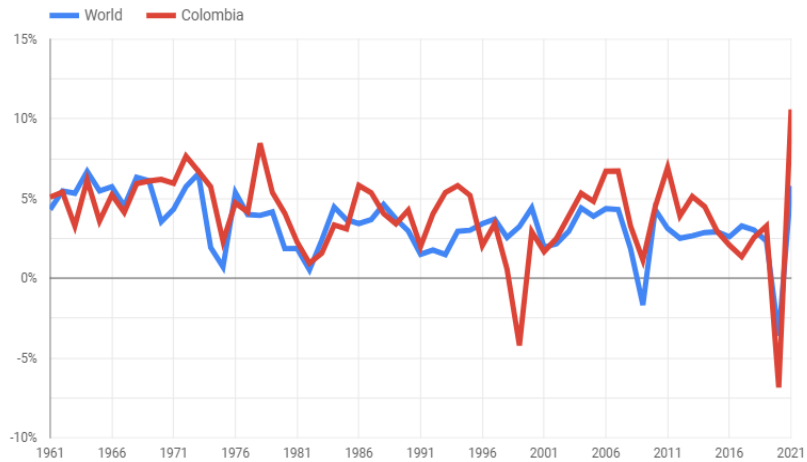
- Infrastructure
- Project finance
- Project Structuring

Shareholders Structure



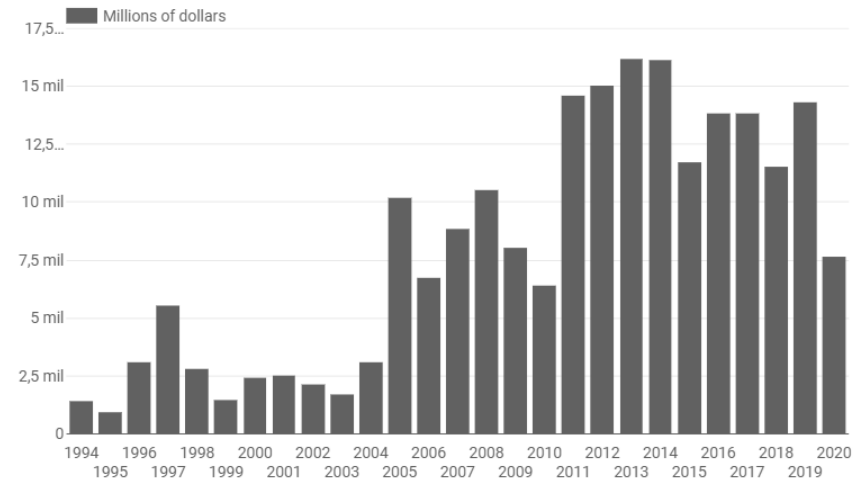
Colombia as an investment destination

GDP growth



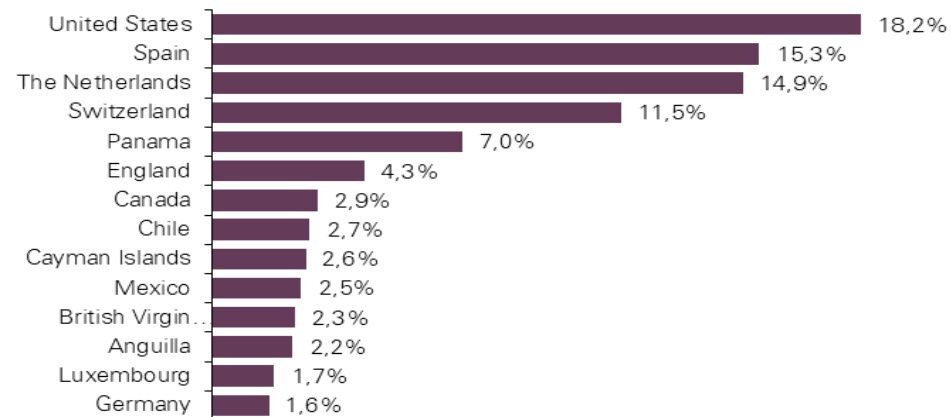
Source: Central bank / World Bank

FDI



Source: Central Bank

Total FDI by country in 2021



Source: Central Bank of Colombia



Colombia as an investment destination

01

Economic recovery in 2021

10,6% growth compared to the region's growth of 6,8% (in 2020 the country contracted by 7% and the region by 6,7%)

02

Regional supplier

Strategic point for the regional supply of goods and services given its strategic location

03

Prospects for economic growth

Better projections compared to Mexico, Brazil, Argentina and Chile in the medium term, according to IMF

04

Technological ecosystem

Developed ecosystem with standards for post pandemic recovery, according to Procolombia

05

OECD member

In 2020, Colombia joined the intergovernmental organization

06

Free Trade Agreements

Current 16 agreements, having preferential access to more than 60 countries and 1,5 billion consumers, including South Korea

07

PPP's competitiveness

According to Infrascope, Colombia is the 2nd most competitive country in Latin America to develop PPP scheme

08

Historical moderate inflation

The country maintains moderate inflation and has never driven hyperinflation like other countries in the region

09

Favorable conditions for investment

Appropriate conditions for development of national and international private companies according to CEPAL.

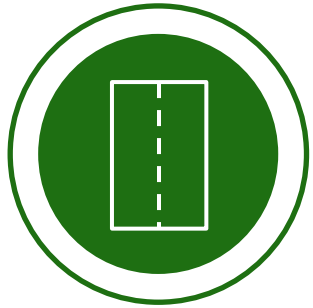
10

Investment opportunity in infrastructure

Construction sector in Colombia could have an annual average growth of 3,3% and new concessions to be launched are an opportunity to investors



Pipeline 2023 - 2026



32

**National road
concessions**



2

**Port
concessions**



3

**Railway
concessions**



4

**Airport
concessions**



**USD 30 billion
Future investment
plans up to 2026**





5 LÍNEAS DE METRO (97 km)

- Extensión Primera Línea de Metro Centro - Usaquén-Toberin - Calle 200
- Segunda Línea de Metro Centro- Engativá- Suba
- Tercera Línea de Metro Av. Santa Fé - Bosa - Av. Villavicencio - Av. Jorge Gaitán Cortés - NQS 92
- Av. Boyacá desde Autopista al Llano - CIM oriente hasta Av. Cl. 72 - Fase 1
- Av. Boyacá desde Av. Cl 72 hasta cruce Av. Guaymaral - Fase 2

7 CABLES AÉREOS

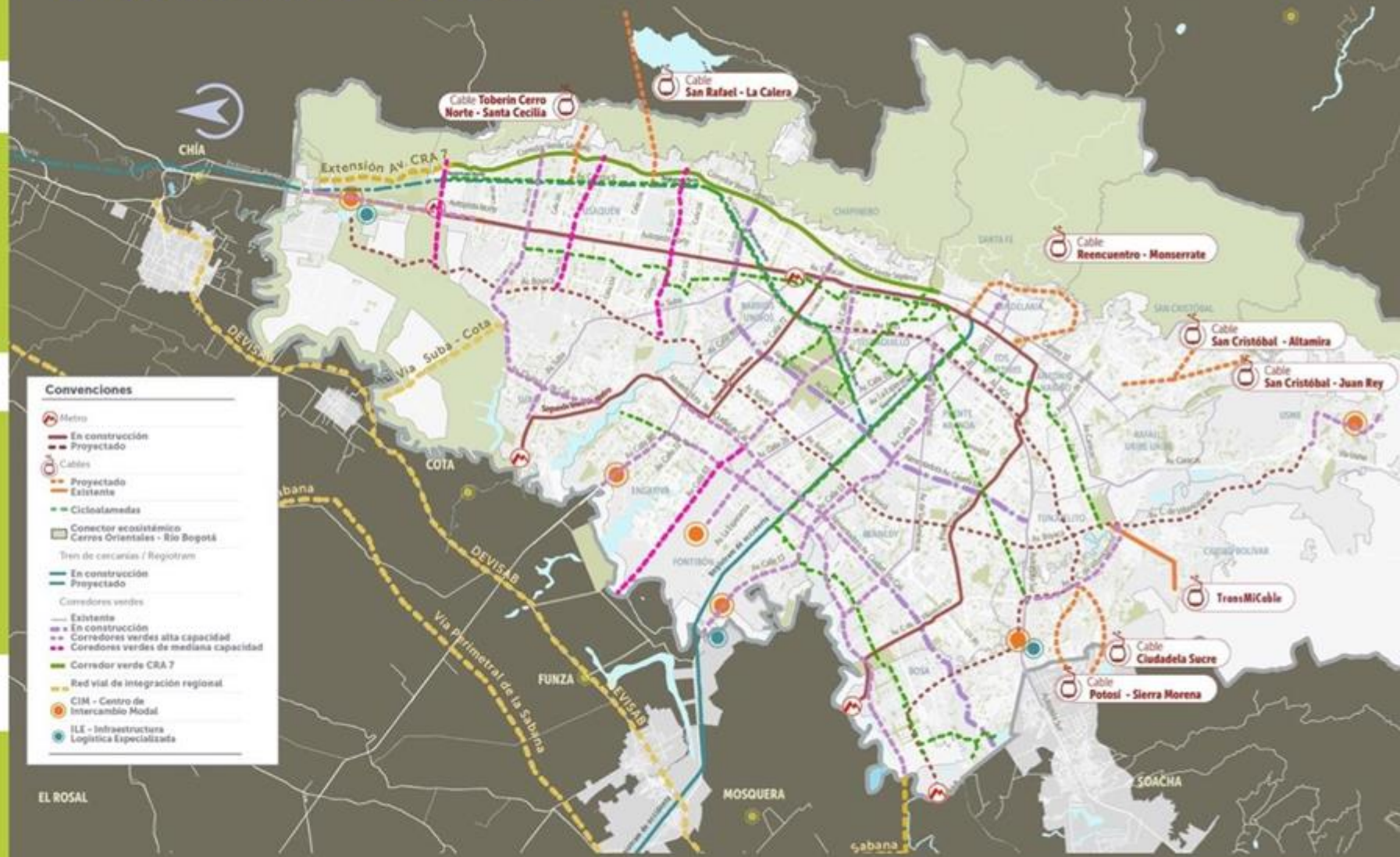
- San Cristobal Altamira
- Soacha Ciudadela Sucre Sierra Morena fase II
- Tres Esquinas - Potosí - Sierra Morena Soacha Cazucá Sierra Morena- fase I
- Reencuentro Monserrate - Santa fe
- Toberin Cerro Norte - Santa Cecilia
- San Cristóbal (ramal Juan Rey) de la Victoria a Juan Rey
- Usaquén Calle 134 - San Rafael - La Calera

2 REGIOTRAM (37.9 KM)

- Regiotram de Occidente
- Regiotram de Norte

22 CORREDORES VERDES DE ALTA Y MEDIA CAPACIDAD

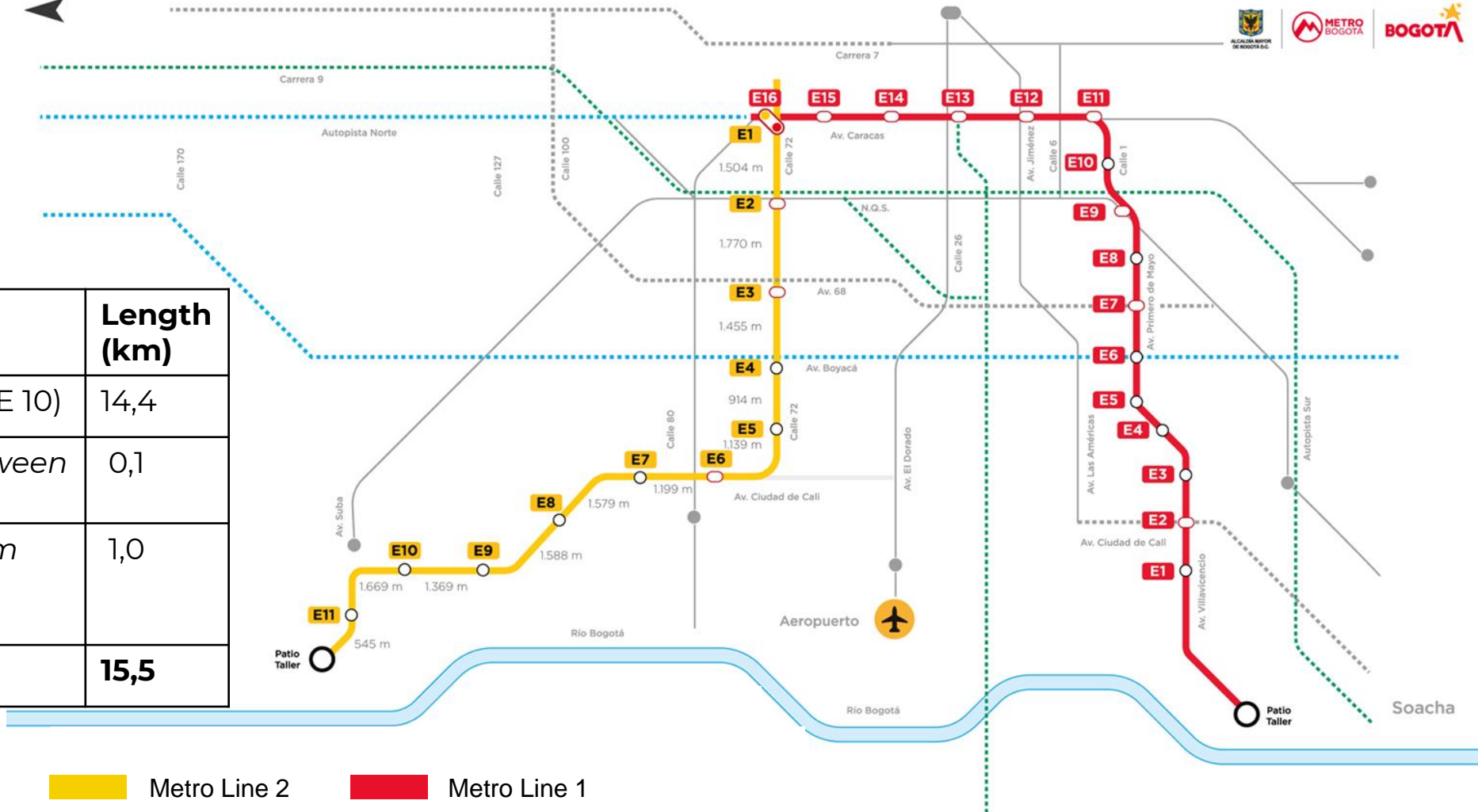
Visión 2035



Red del sistema transporte público de pasajeros

L2MB & PLMB

L2MB	Length (km)
Tunnel (E1 – E 10)	14,4
Trench (between E10 and E11)	0,1
Viaduct (from trench until depot)	1,0
Total	15,5



Metro Line 2
 Metro Line 1



General Context

The Project in numbers



Alignment: mainly underground (100% greenfield)
Tunnel diameter: 10,8 m



Volume of excavations in tunnel, stations and yard: 4,200,000 m³



Total **concrete** demand: 1,300,000 m³



Rolling stock: 25 EMUs (21 in operation)
Cars per train: 7



130s **headway** in peak hours



Traffic forecast: 49.000 pphpd (2042)



Time savings of 46.3 M h/year for public transport users and **15.6 M h/year** for private vehicle users.



2,900,000 km per year



Annual ridership: 150 million pax



Background

Project team



Technical advisor



Financial advisor



Legal advisor



Supervision



Project Scope

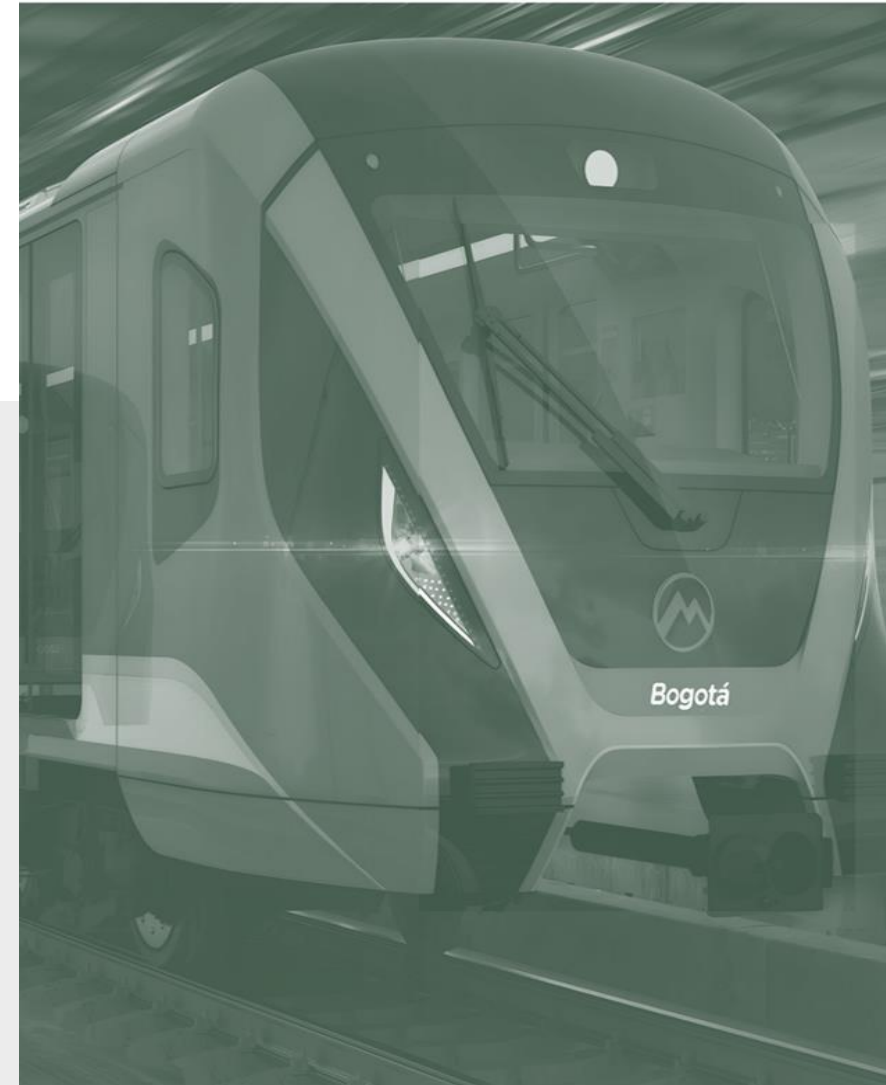


Pillars

1 | Studies and Design

2 | Transaction scheme

3 | Selection process



Key aspects

Design principles

Relevant aspects for L2MB design



Differences vs. PLMB

- ✓ No impacts on main public utilities
- ✓ Limited local transit interferences
- ✓ Lower land acquisition requirements
- ✓ BIM based project



Specific considerations

- ✓ Geotechnical risk management
- ✓ Infrastructure resilient to climate change
- ✓ ESG's compliance requirements



Station insertion pillars

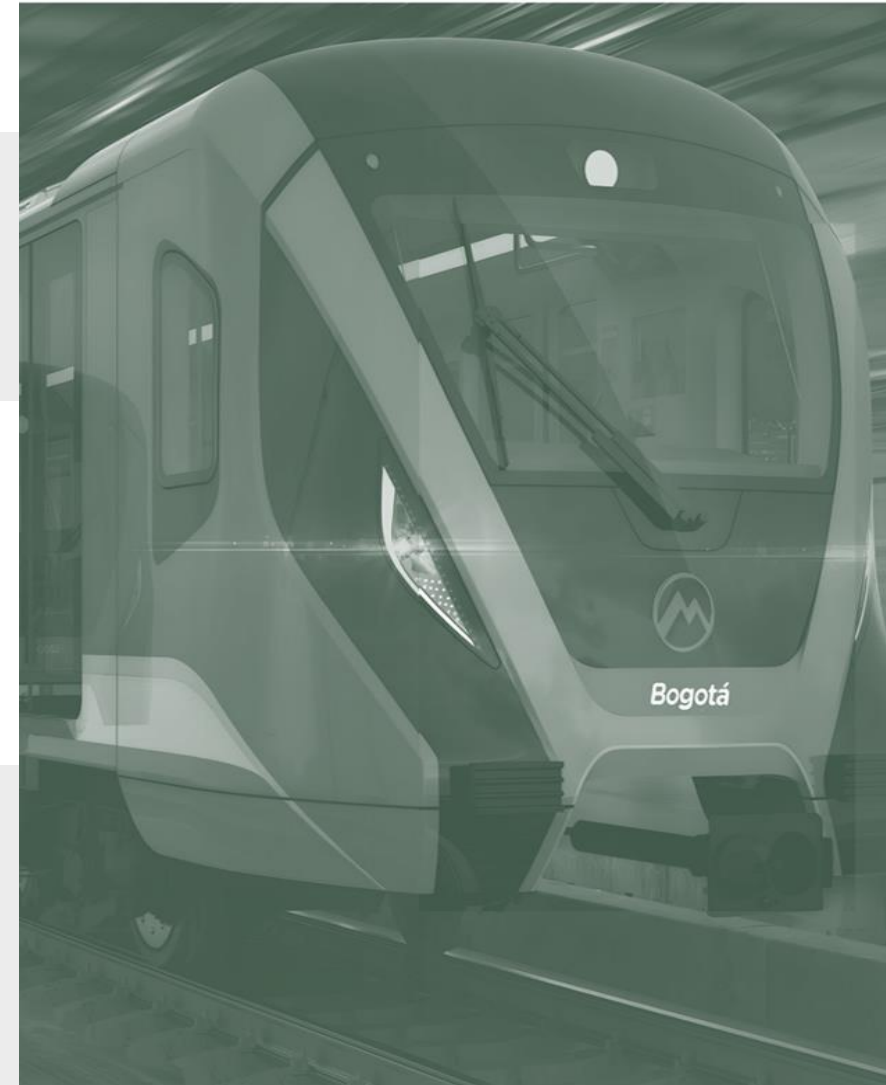
- ✓ Integration with public transport systems
- ✓ Integration within the urban environment
- ✓ Incorporating local communities' needs

Pillars

1 | Studies and Designs

2 | Transaction scheme

3 | Selection process



Pillars

Transaction scheme

DBOMT concession with responsibilities by concessionaire related to:



Studies and designs



Financing



Construction, maintenance and reversion of infrastructure



Provision, testing, O&M and reversion of rolling stock



Provision of public transportation service

EMB Role



Obtain the resources of the cofinancing agreement from the city and national government

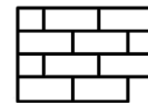


Partial land acquisition



Payments to the concessionaire

Concessionaire Role



Execution of civil works and acquisition of rolling stock



Equity contribution and provision of part of the total debt



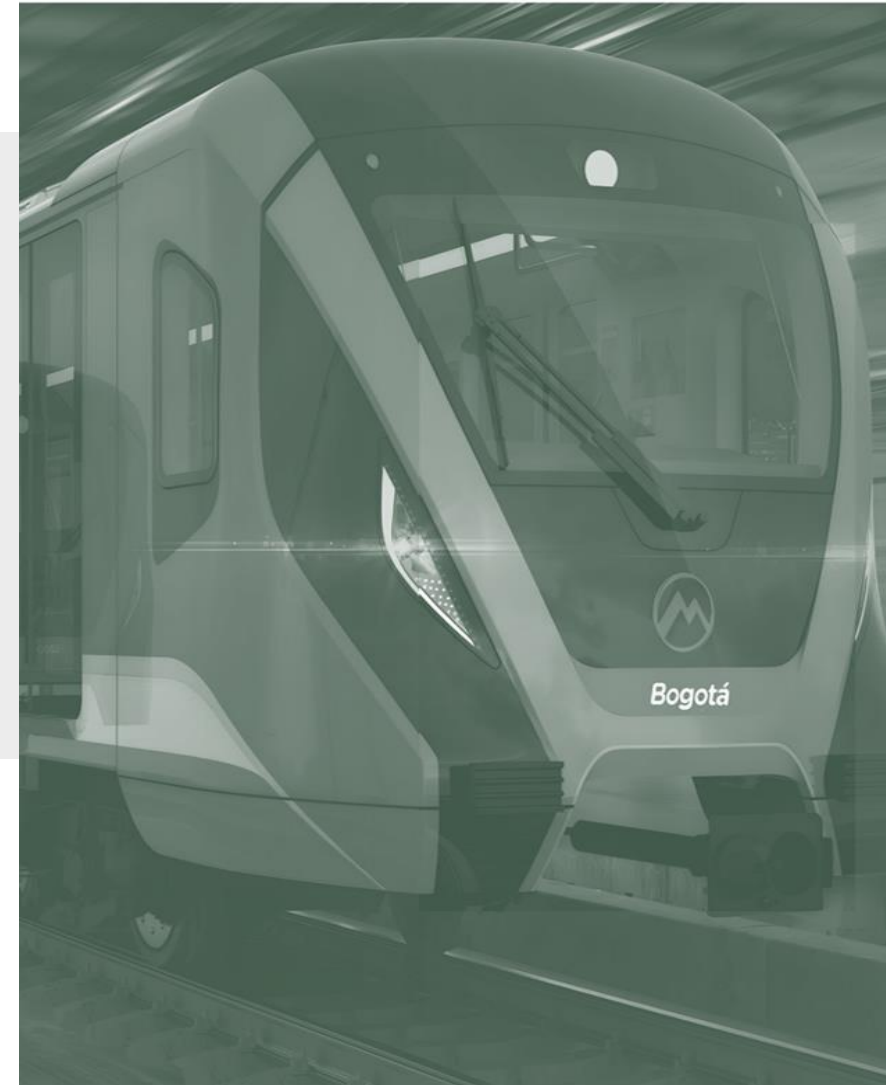
Provide transportation services during the O&M stage without demand risk

Pillars

1 | Studies and Design

2 | Transaction scheme

3 | Selection process



Pillars

Selection process



01.

Anticipating market information

02.

Market interaction

03.

Experience requirement scheme

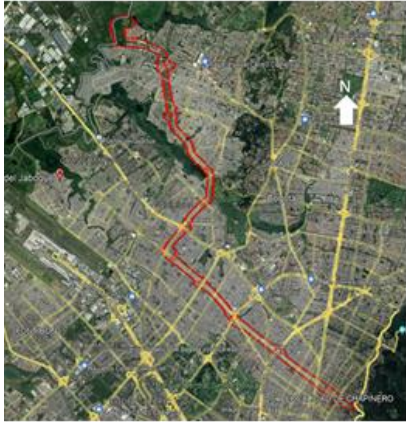


Design and technical definitions



Fieldworks

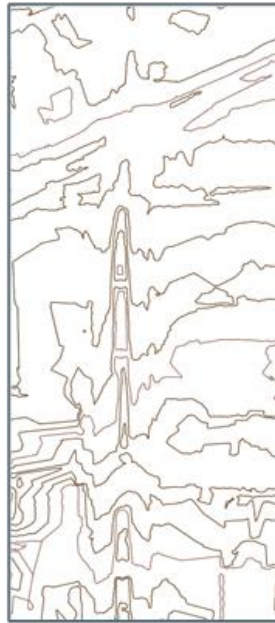
Data collection



404 Ha of topographic studies



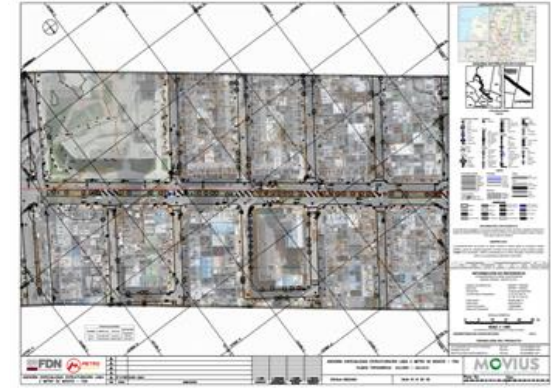
Geodesic network (48 GPS points)



Digital Ground Model



Orthophotography



Detailed topographic plans



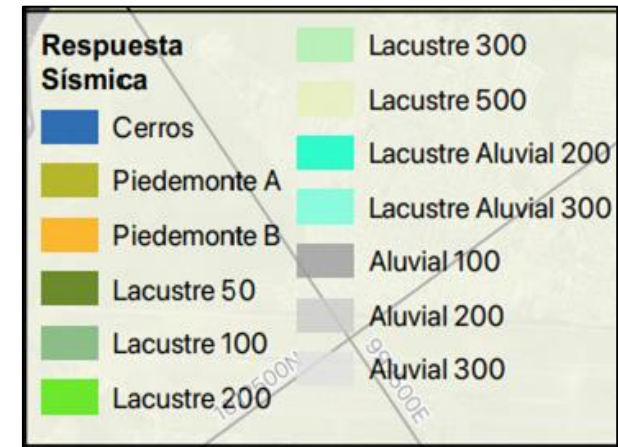
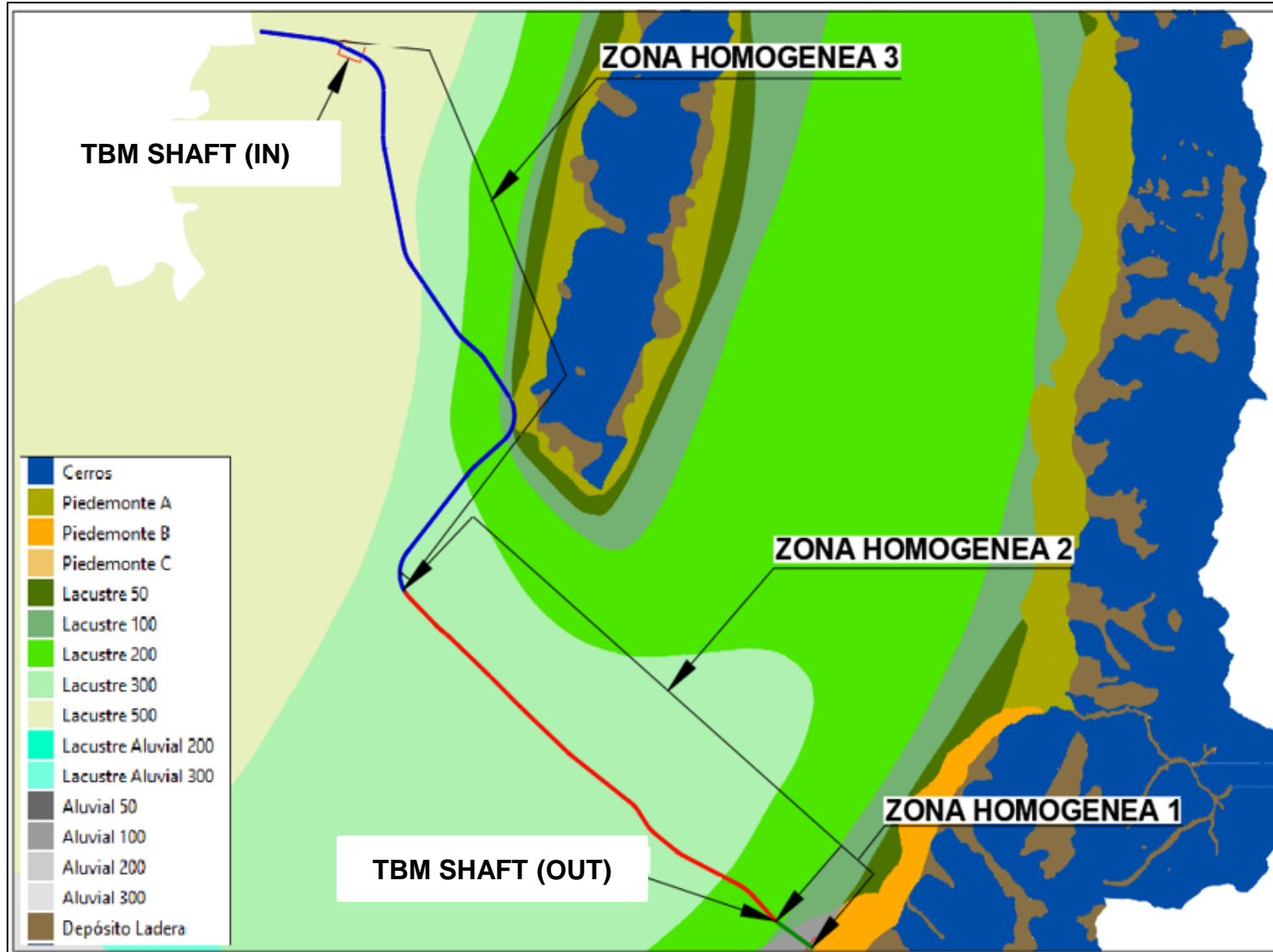
Air and ground Lidar Sensor



Source : Own elaboration.

Base information

Geology-Geotechnics

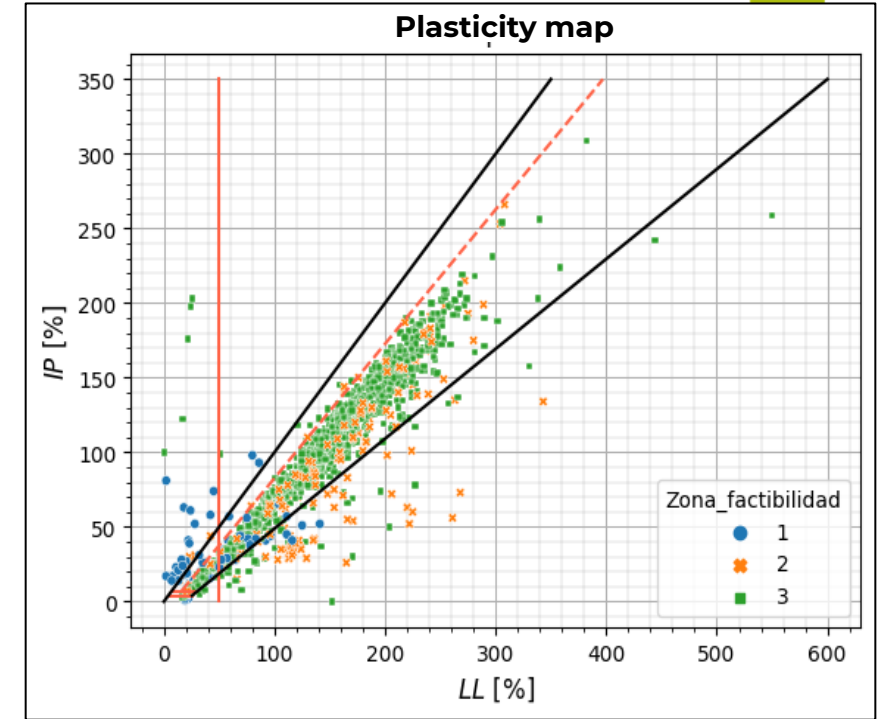
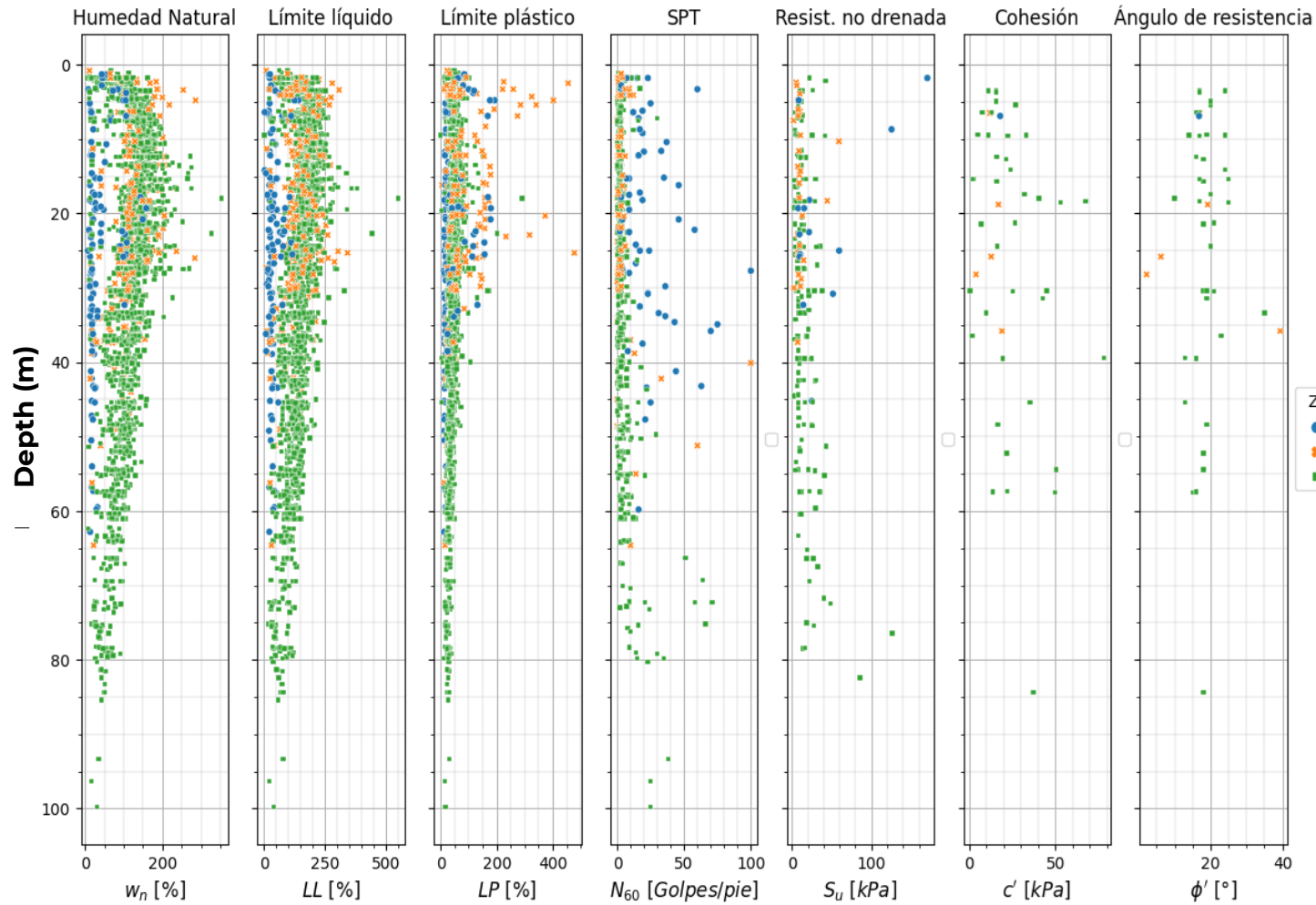


Source of the images: Own elaboration.

Laboratory Results

Geotechnics

Variation of parameters in homogeneous areas



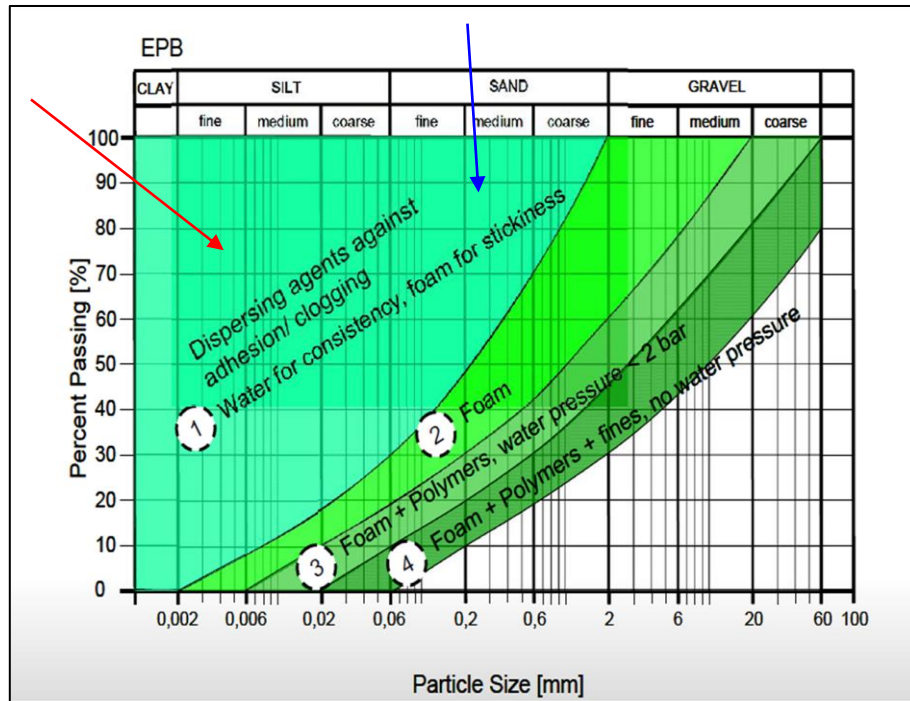
Source: Own elaboration

Construction process

Tunnel

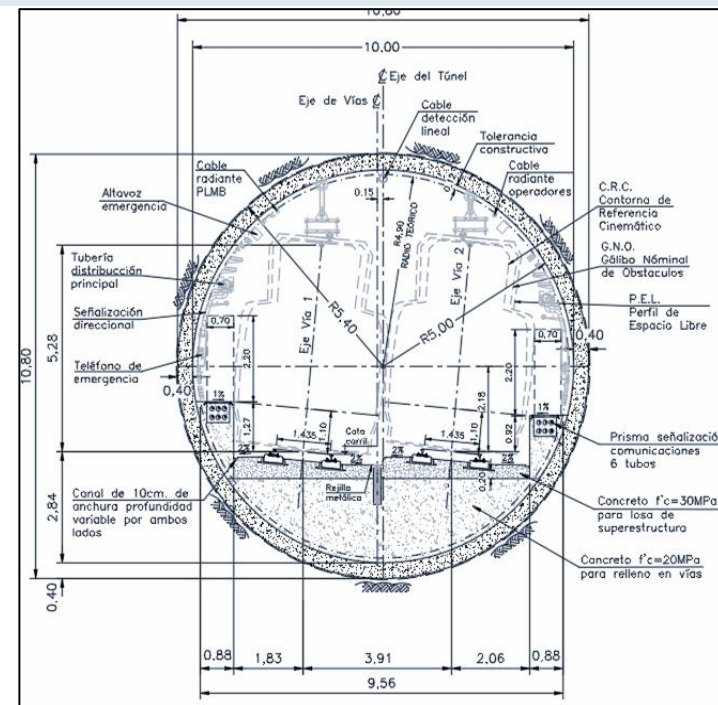
Area 1

Areas 2 & 3

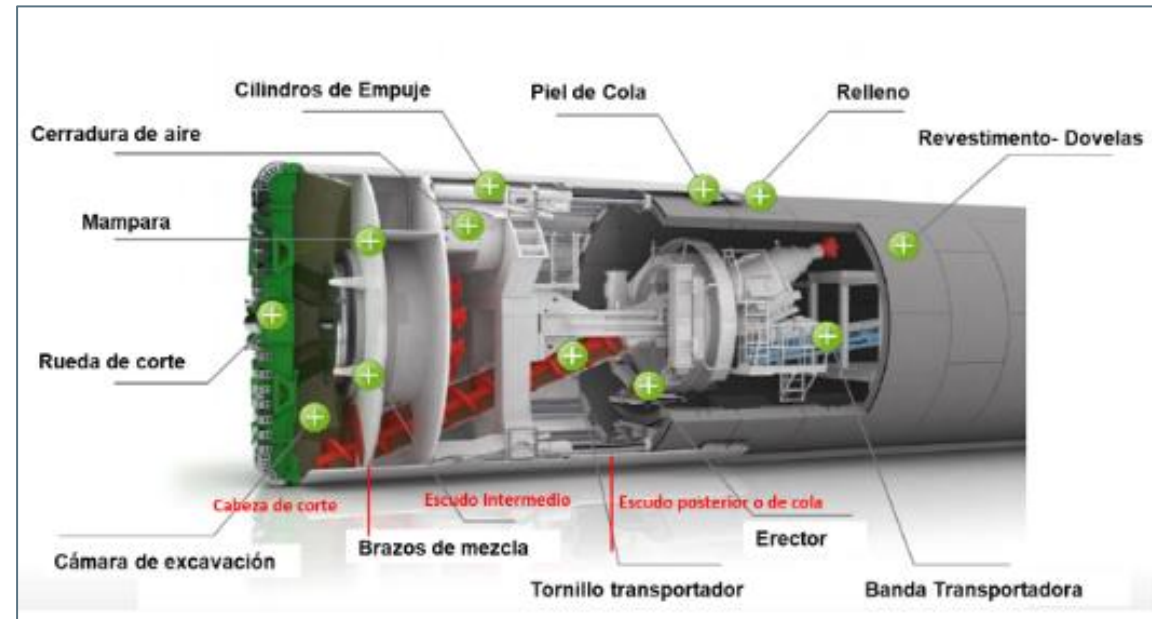


Source: Own Elaboration.

EPBM Earth Pressure Balance Machine



Source: Own elaboration.

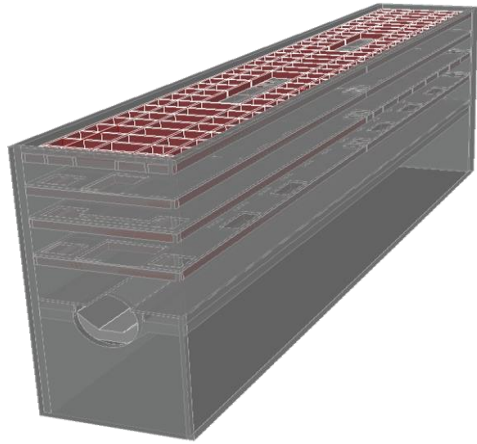


Construction process

Stations

Santa Rosa Station of the Valencia Metro - Venezuela

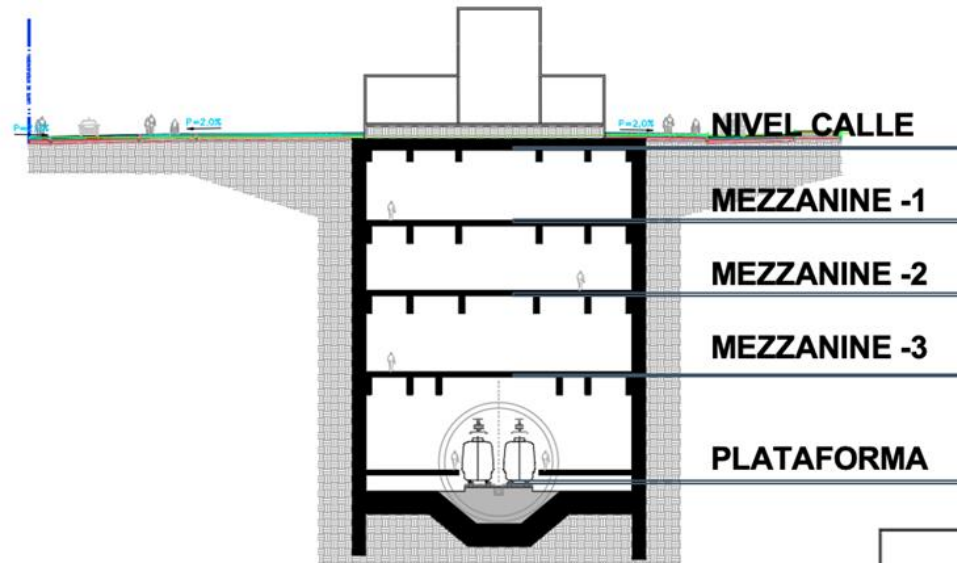
Construction method
(CUT & COVER).
Inverted Method



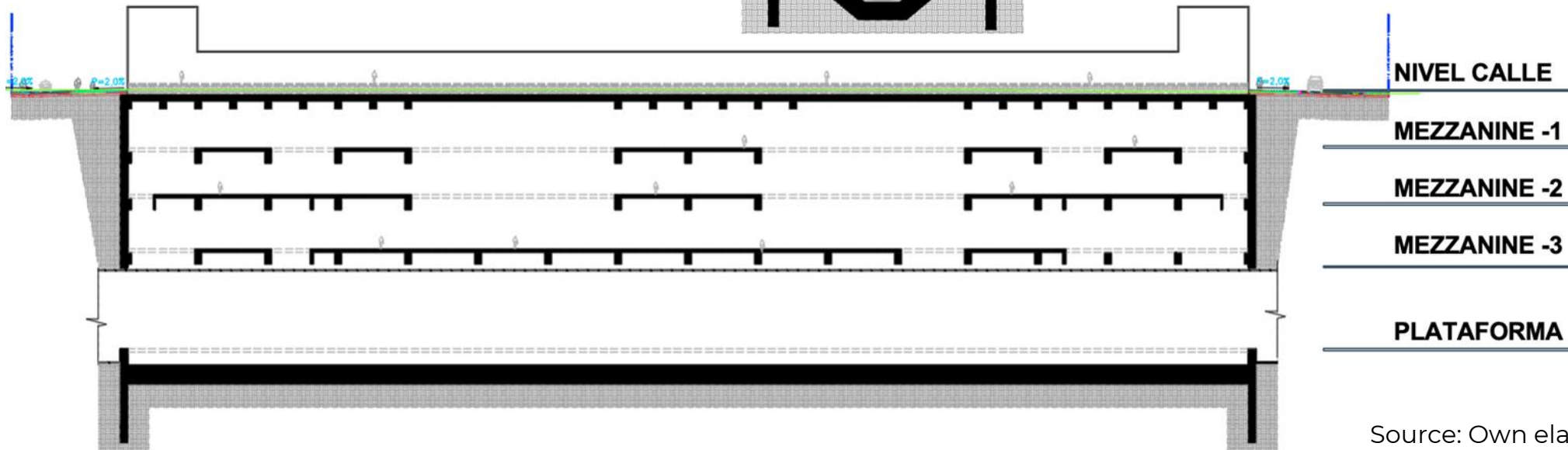
Construction process

Stations

Cross section



Longitudinal section



Source: Own elaboration

Stations

Design guidelines and principles

Guidelines:

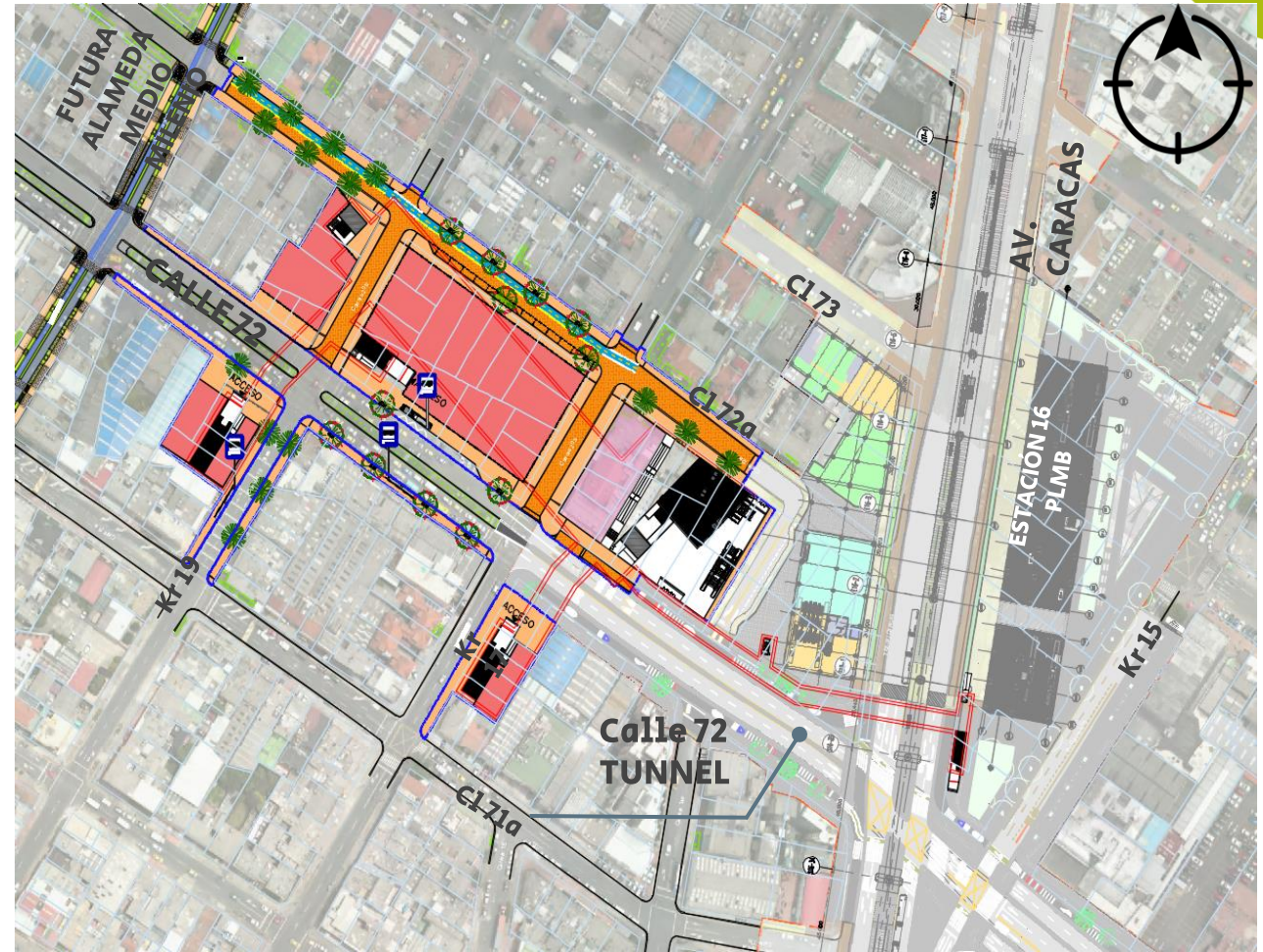
- ❖ **Efficient connection with 1st metro line (PLMB)**
- ❖ **Connectivity with the other and main current and planned SITP systems** in the short and medium term (Transmilenio, Regiotram)
- ❖ **Distance between stations** : +/- 1200m corresponding to a balance between system attractiveness (commercial speed) and accessibility (land cover)

Design principles:

- ❖ Minimization of land and environmental impacts
- ❖ Minimization of impacts on road traffic and the SITP
- ❖ Secure access (access points, walkways, signage)
- ❖ Urban and landscape integration
- ❖ Integration of bike parks and commercial areas

Station 1

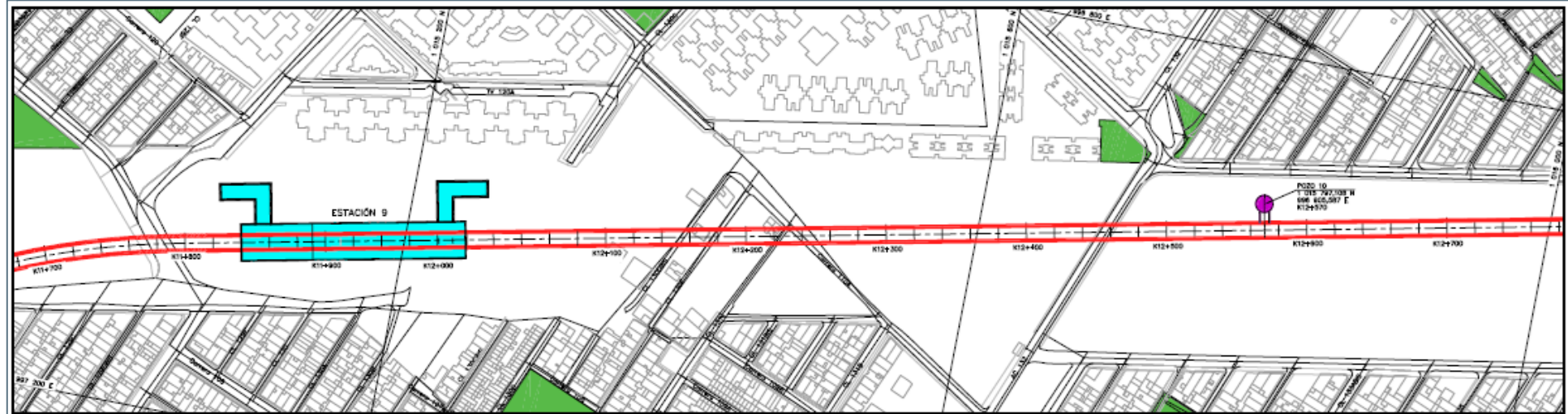
Urban environment



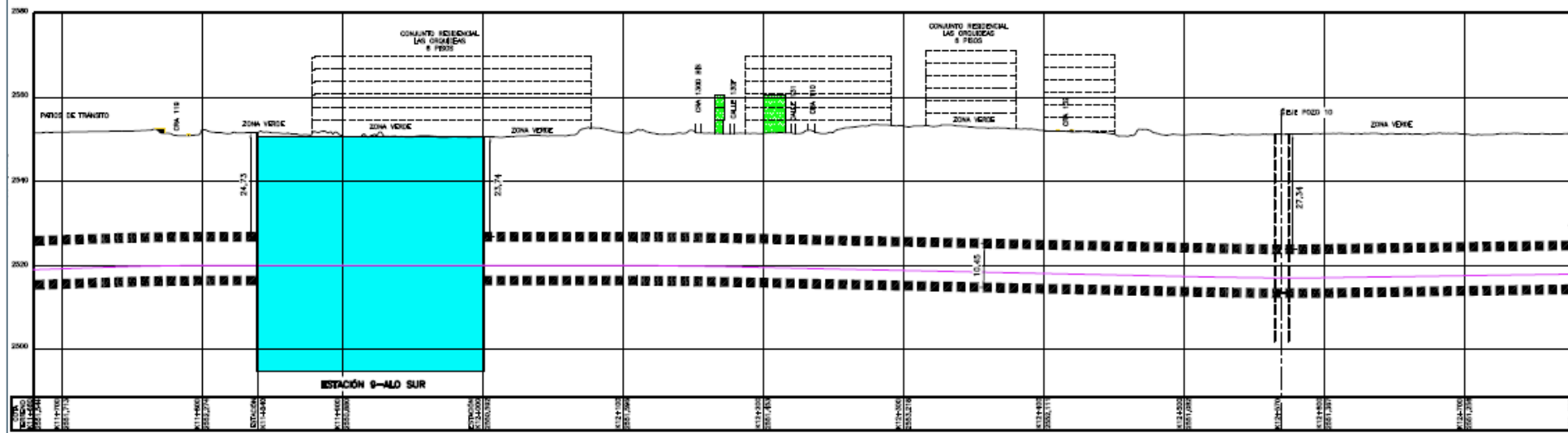
Source: Own elaboration

Station 9

Alignment



PLANTA
ESCALA A



Station 9

Urban environment



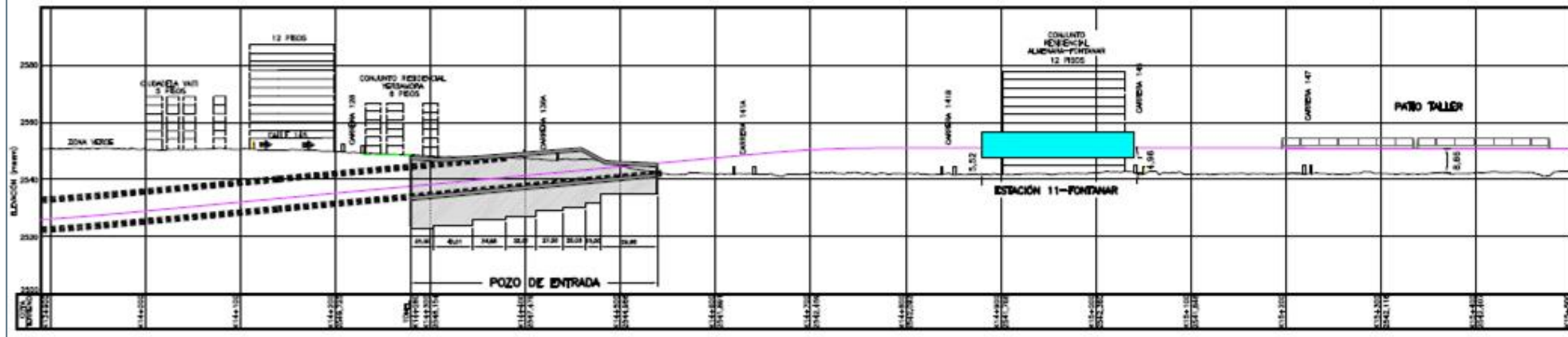
Source: Own elaboration

Station 11

Alignment



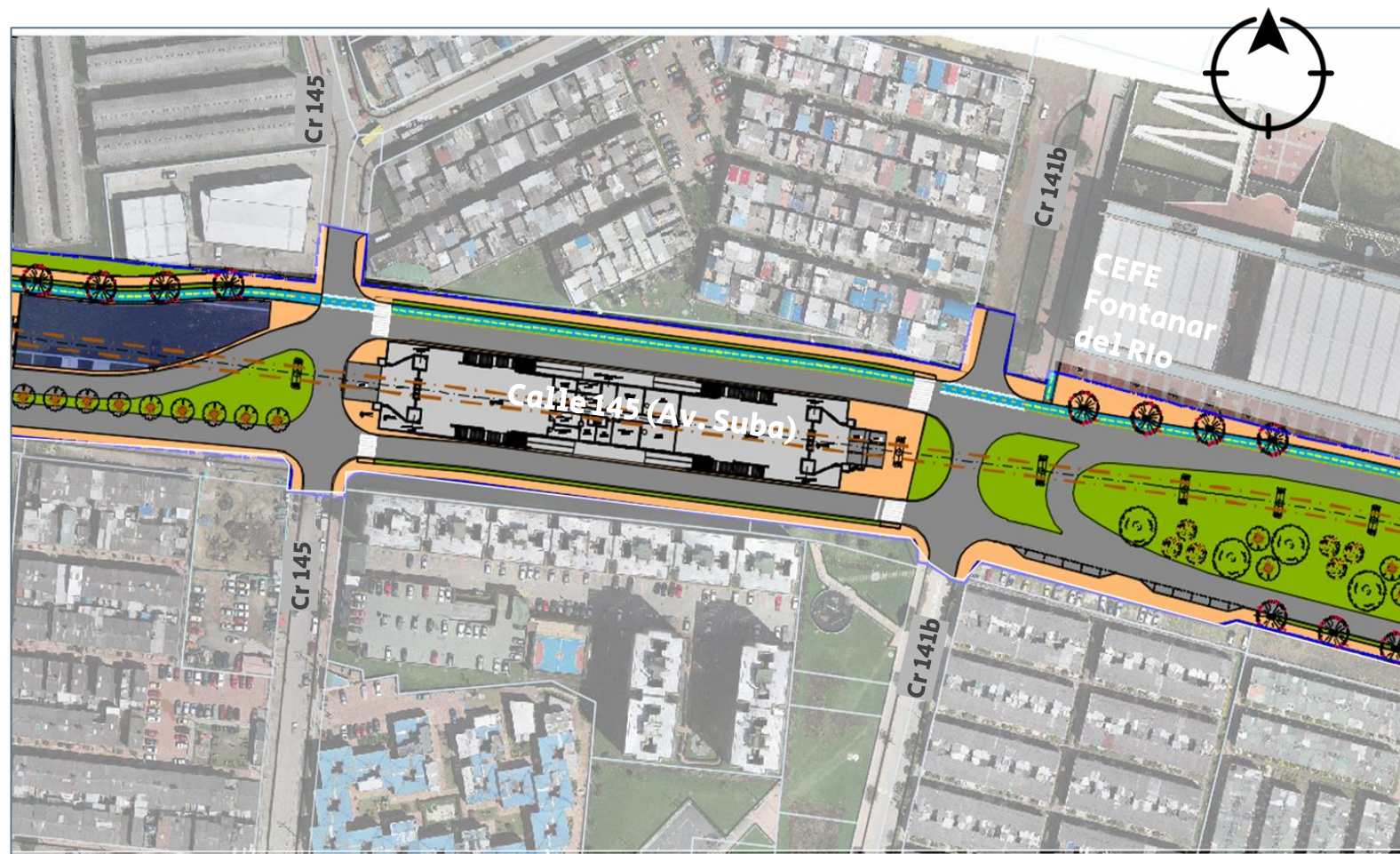
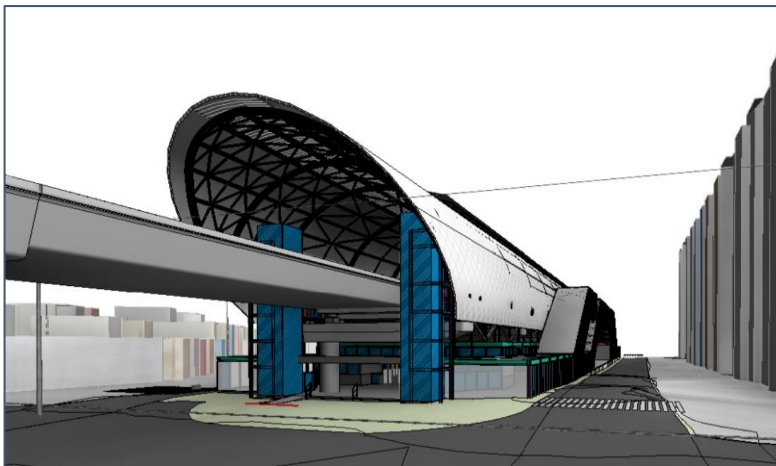
PLANTA
ESCALA A



Source: Own elaboration

Station 11

Urban environment

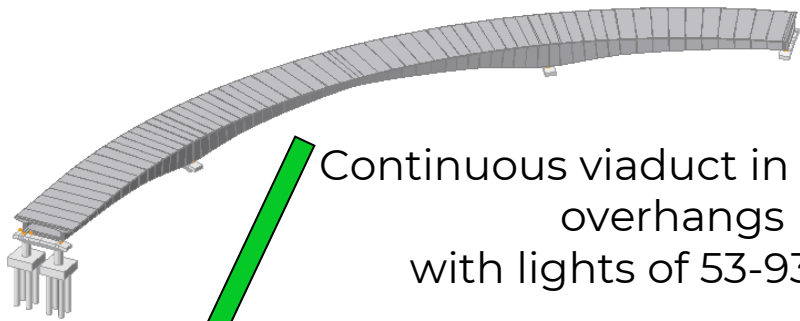


Source: Own elaboration

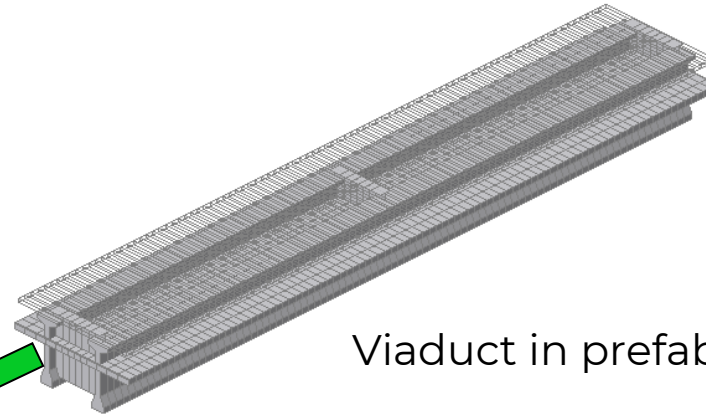
Viaduct

Características

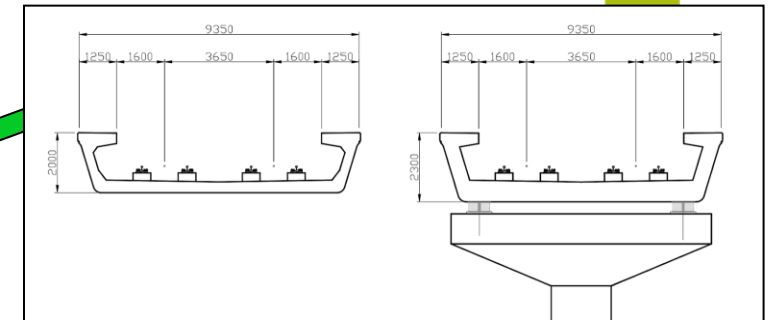
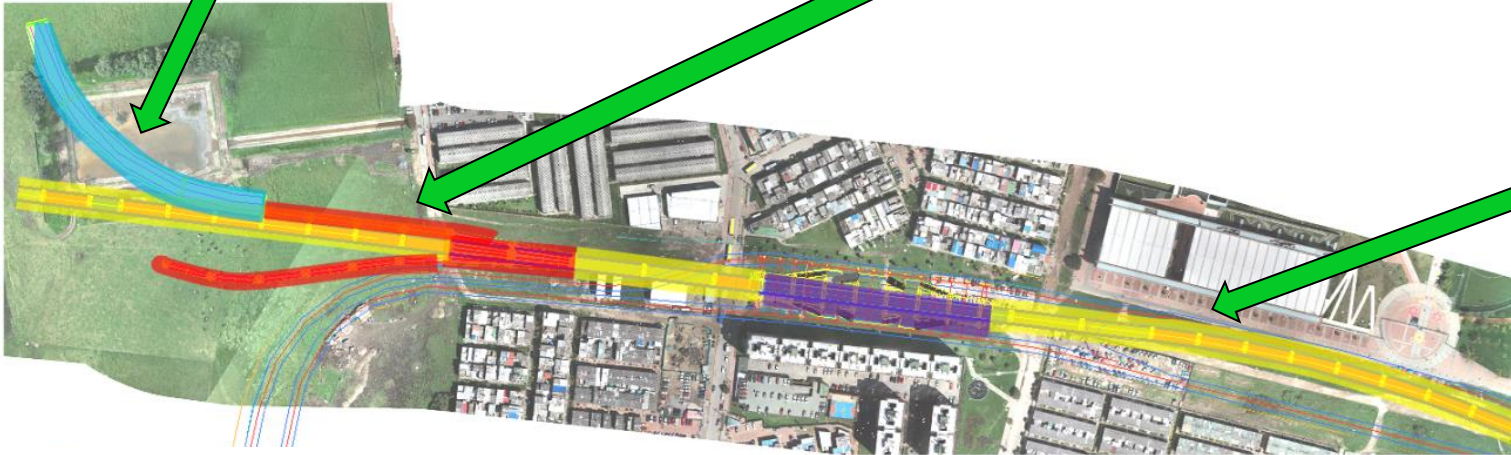
Length: 1005 m



Continuous viaduct in successive overhangs with lights of 53-93-53 m

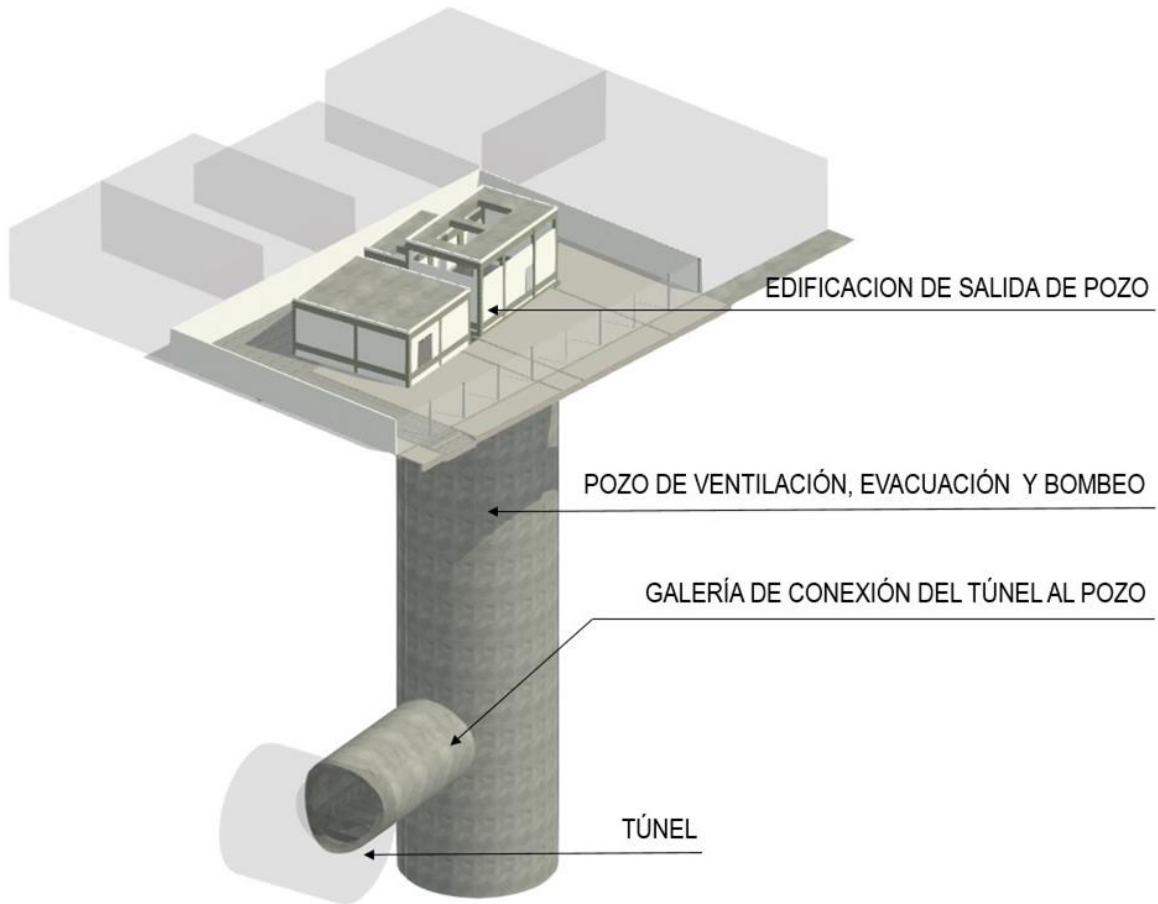


Viaduct in prefabricated beams

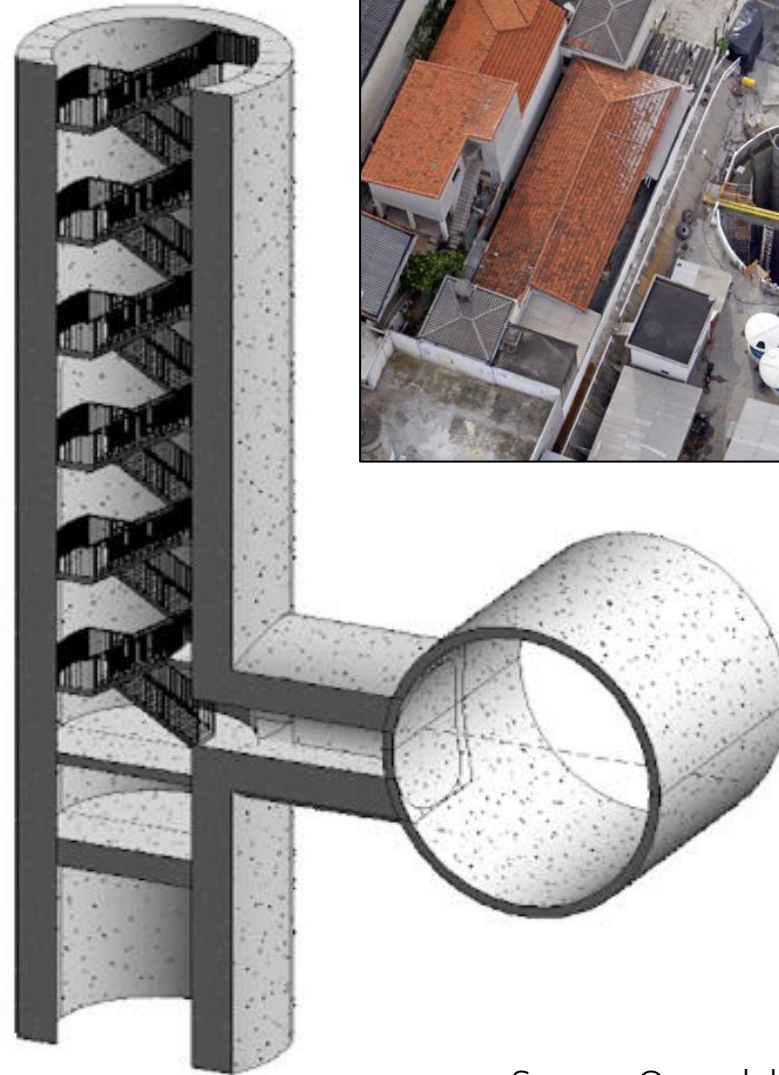


Large U type with spans supported on piles with 30 m lights

Shafts



Structural scheme and surface level for shafts



Source: Own elaboration



METRO
BOGOTÁ

Rolling Stock and Rail Systems

Rail systems

General approach

- ❖ Design and technical specifications oriented towards the **fulfillment of the functional objectives** of the project
- ❖ Balance between **proven solutions and innovations**
- ❖ Definition of solutions oriented towards **line performance and system maintainability**
- ❖ **High documentation, training and testing requirements**

Rolling stock

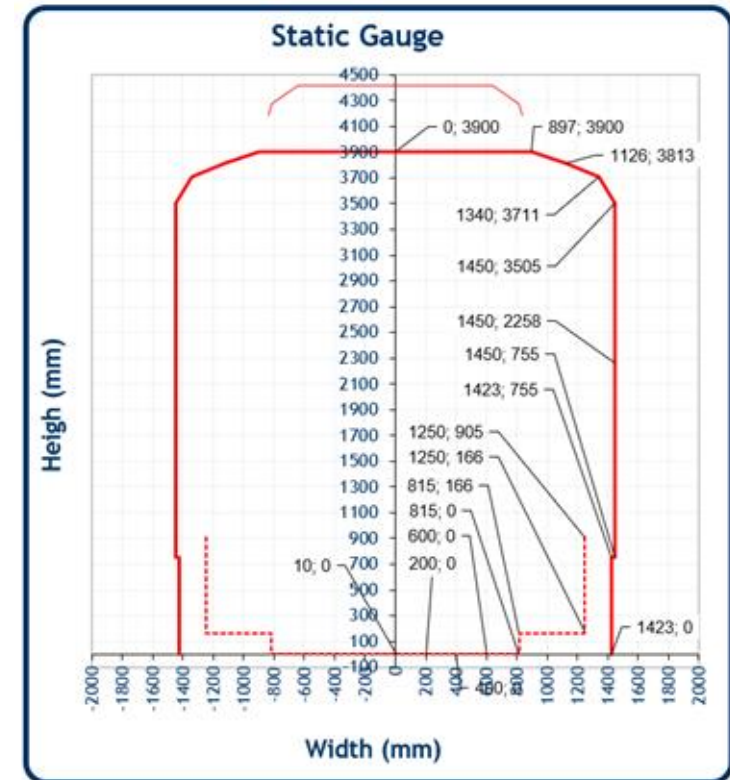
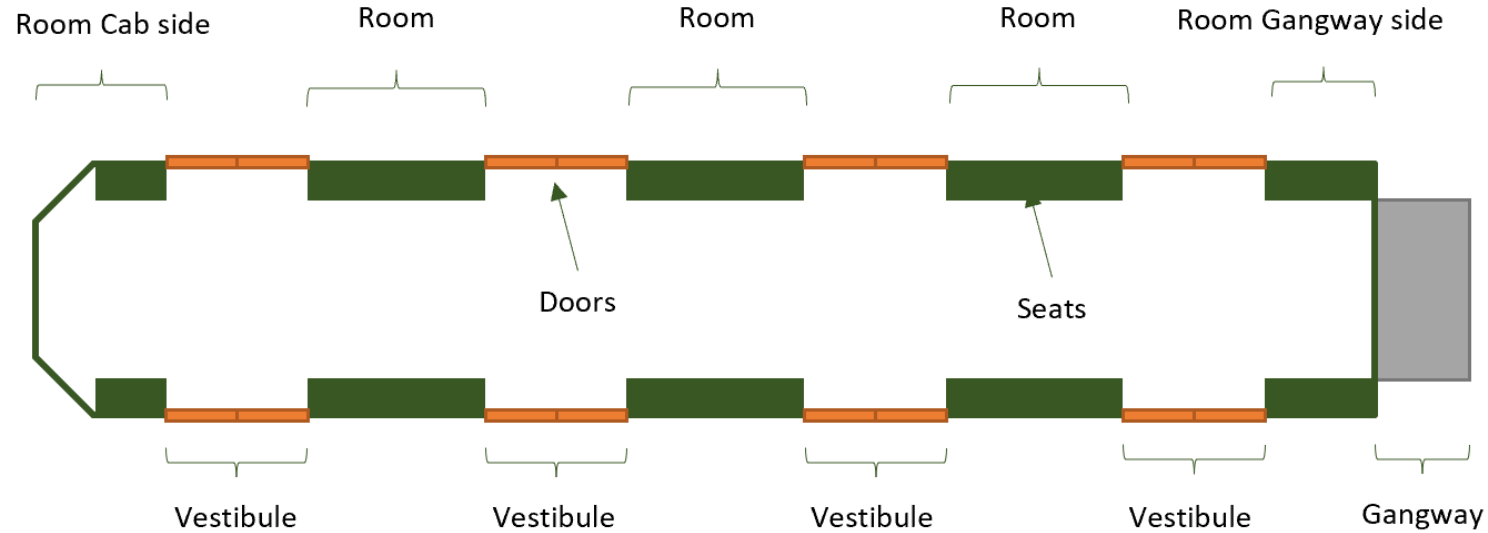
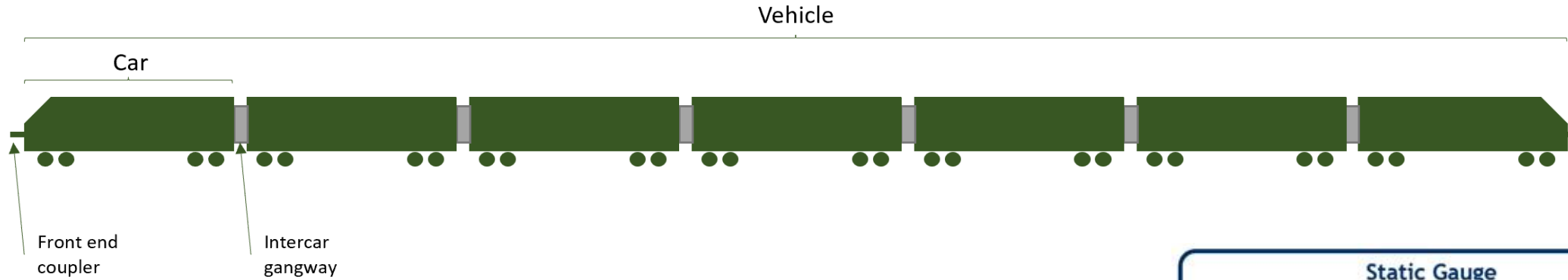
Main Characteristics

Dimensions	Lenght	145 m maximum
	Width	2,90 m
Configuration	Number of cars	7
Level of automation	Level of automation	GOA4 (automatic)
Interior diagram	Comfort standard	6 pax/m ²
	Capacity	1800 pax/train
	% seated passengers	14%
	Number of doors per car per side	4
	Door widths	1400 mm minimum
Performance	Commercial speed	43 km/h
	Maximum speed	80 km/h
Energy	Type of power supply	Rigid catenary
	Voltage	1500 V
Other features / characteristics	Type of wheels	Steel wheel
	Accessibility	Universal accessibility
	Maximum weight per axle	17 t



Rolling stock

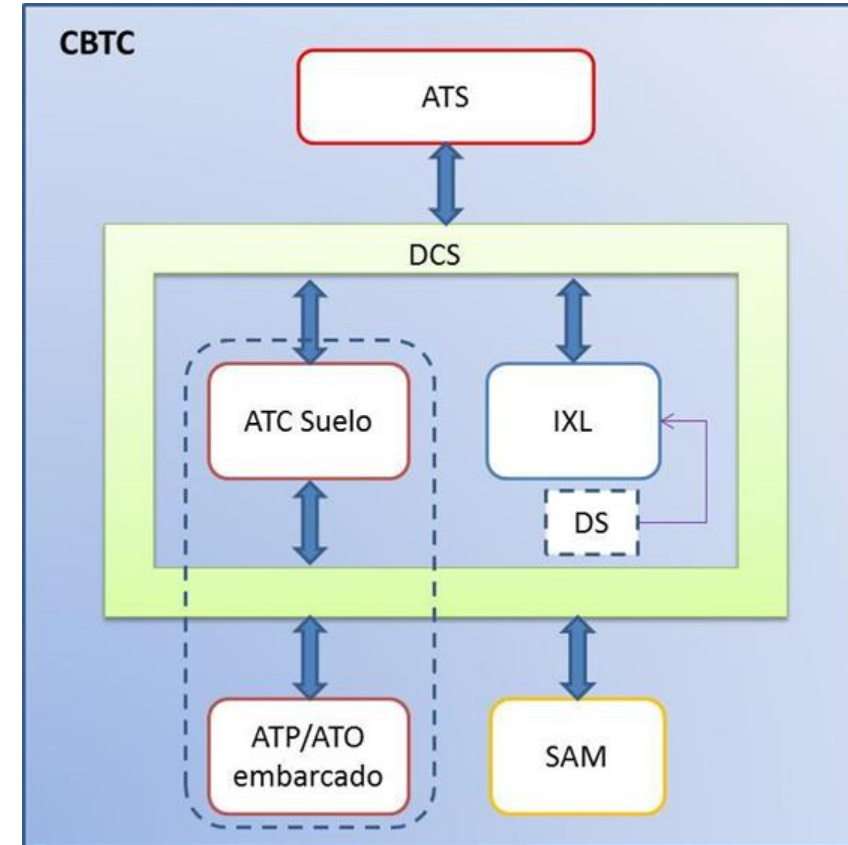
Trains configuration and static gauge



CBTC

Main Characteristics

- ❖ **Operation:** UTO (GOA4) - IEC 62290-1-2 standard
- ❖ **Driving modes:** UTO (in UTO zones) and manual (outside UTO zones and when UTO mode is not available)
- ❖ **Centralized or distributed** architecture
- ❖ Architecture based on **high equipment redundancy**
- ❖ **Detection system:** mobile canton (nominal mode)
- ❖ **Division of the line by zones**
- ❖ **Station hop** function and **Express mode**
- ❖ **Communication of traffic data:** in real time

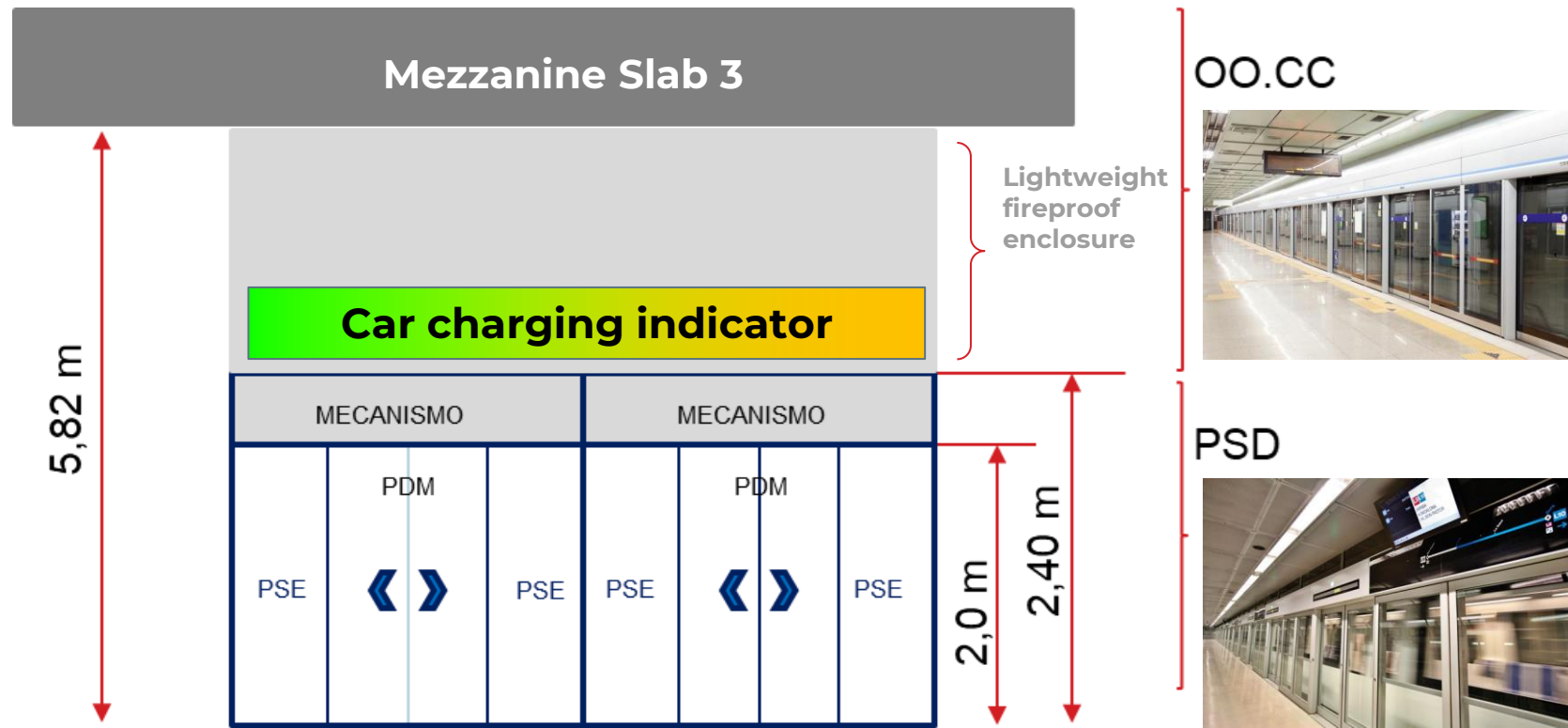


Functional architecture

Platform Screen Doors

Main Characteristics

- ❖ **Maximum height:** 2.40 m with free opening of 2.10 m and free height of 2.00 m
- ❖ With **platforms of 150 m, 7 cars by train and 4 doors by car**
- ❖ **Anchorage:** lower on the nose of the platform and upper with station structure
- ❖ **Type of doors :** outer sliding plug type



Telecommunications

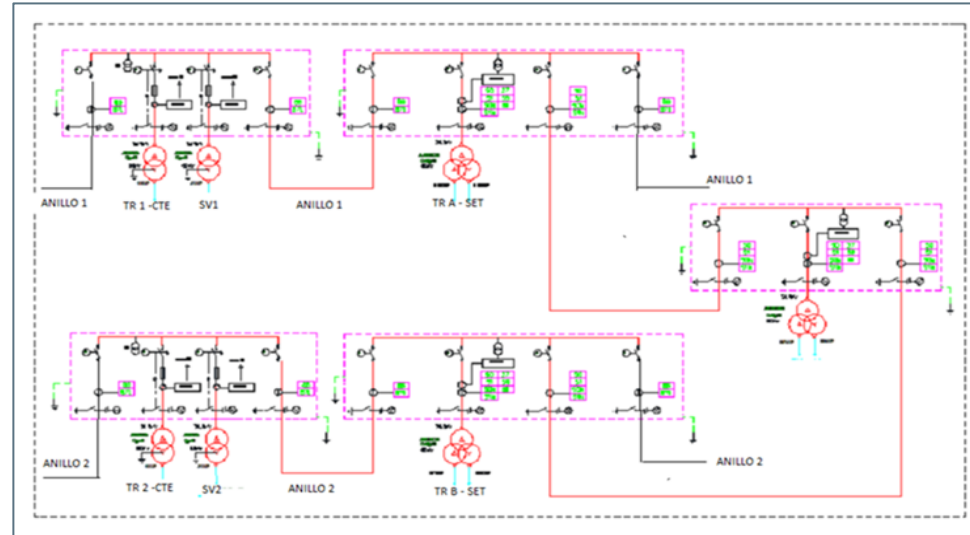
Main Characteristics

- ❖ **IHM system: tool that allows the integration of telecommunications systems**
- ❖ **Multi-service network:** 2 networks separated both physically and logically (operational and administrative)
- ❖ **IP Telephony:** 2 telephonies (operational telephony and administrative telephony)
- ❖ **Passenger Announcement System (PAS):** focus on high message intelligibility
- ❖ **Broadband network:** LTE technology integrated with Tetra network
- ❖ **Ticketing:** integrated into the SITP ticketing system
- ❖ **CCTV:** video analytics
- ❖ **and other telecommunications subsystems:** intercom, passenger information system (SIP), physical level network, broadband network, chronometry, operator management system, advertising broadcasting system, access control and alarms.

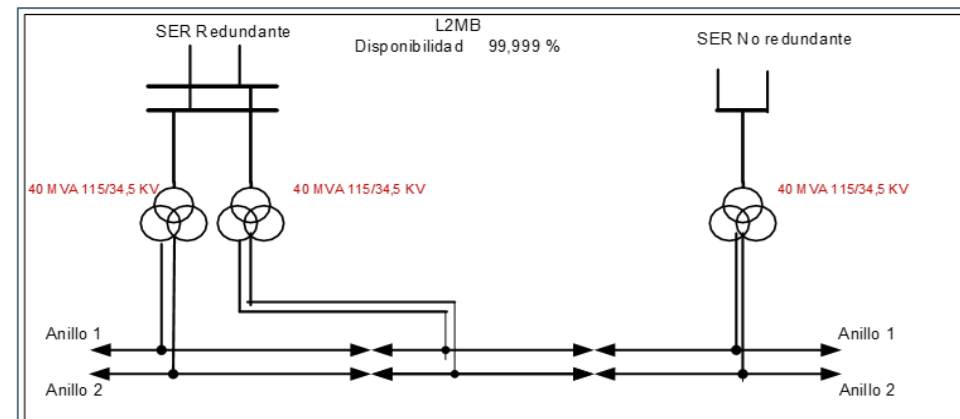
Power supply

Main Characteristics

- ❖ **Receiving substations** powered from independent points of the 115 KV sub transmission network
- ❖ **4 two-group traction substations** with 3800 kW rectifiers (on main line)
- ❖ **1 single group traction substation for depot**, with 3800 kW rectifier
- ❖ **2 medium power rings in 34.5 KV with N-2** redundancy



Unilinear Scheme



High Voltage System Principle Diagram

Catenary

Main Characteristics

- ❖ **Type of catenary** : rigid with aerial contact profile
- ❖ **Anchorage** : rigid suspension in tunnel and side posts for sections in viaduct and trench
- ❖ **Nominal supply voltage**: 1500 V cc
- ❖ **Other aspects**:
 - Minimum/maximum pantograph catchment height: 4.30 m / 6.00 m
 - Maximum arrow: 1/1000 of the span length
 - Span between two successive supports: not exceeding 10 m on main line



Rigid tunnel catenary



Viaduct anchorage with side posts

Other rail systems- related characteristics

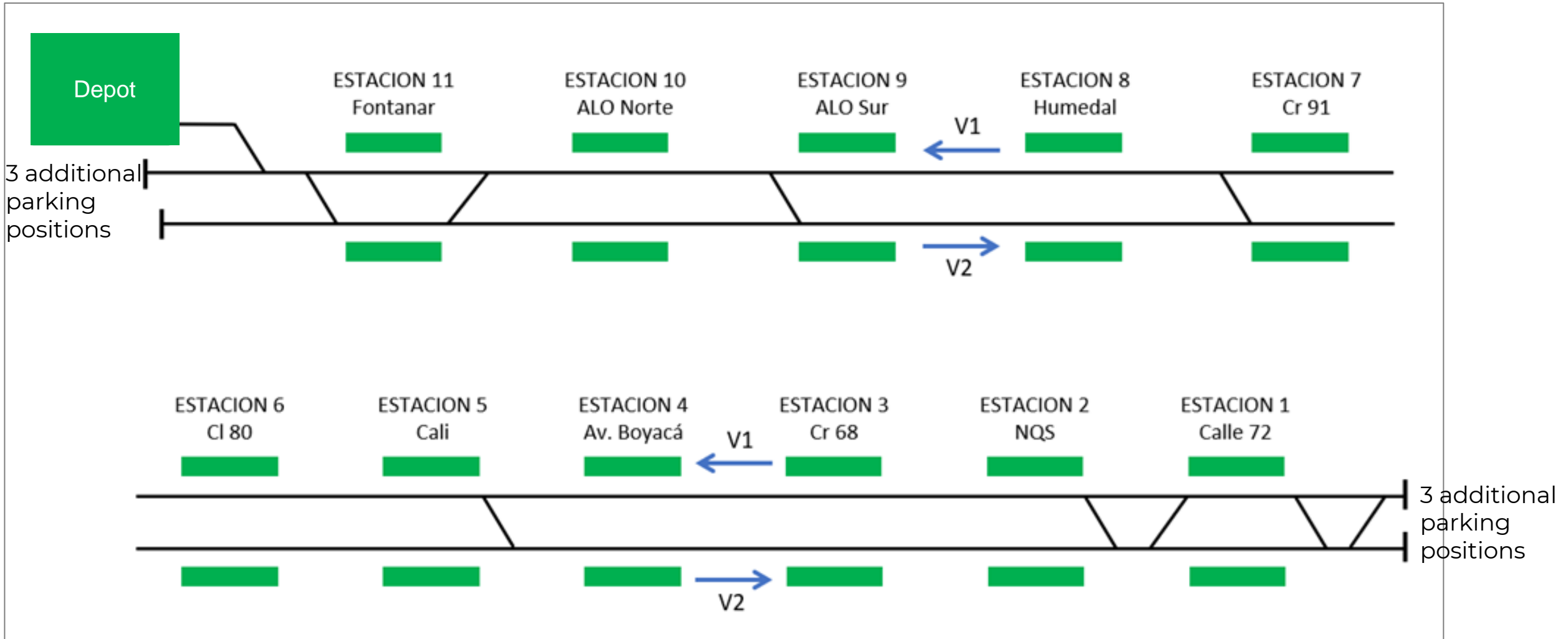
- ❖ **Track (main parameters):**
 - Track gauge: 1.435 mm
 - Minimum horizontal radius: not less than R=400m in line, not less than R=100m in patio-workshop area
 - Maximum slope : 2% (recommended), 4% (exceptional)
- ❖ **Operations Control Center (OCC) + Backup:**
 - Located in stations 5 and 6
 - Maintenance Control Center (MCC)
- ❖ **Maintenance Policy:** based on preventive maintenance, asset and data management
- ❖ **Policy RAM(S):** ambitious with high indicators of technical global availability
- ❖ **Cybersecurity:** requirements to prevent systems from being compromised, reduce and manage residual risks



Preliminary Operation Plan

POP

Track scheme



POP

Main Characteristics



Hours of operation:

4:30 - 23:00



Driving mode:

UTO (GOA4)



25 trains: 21 in operation, 3 in maintenance, 1 in reserve



Travel times:

19'42 minutes (between terminals)
44'33 minutes (Round Lap Time)



Commercial speed:

43,2 Km/h \pm 0,5 km/h



Headway:

130s (peak hour)



Annual production:

2.9 million km (95% commercial)



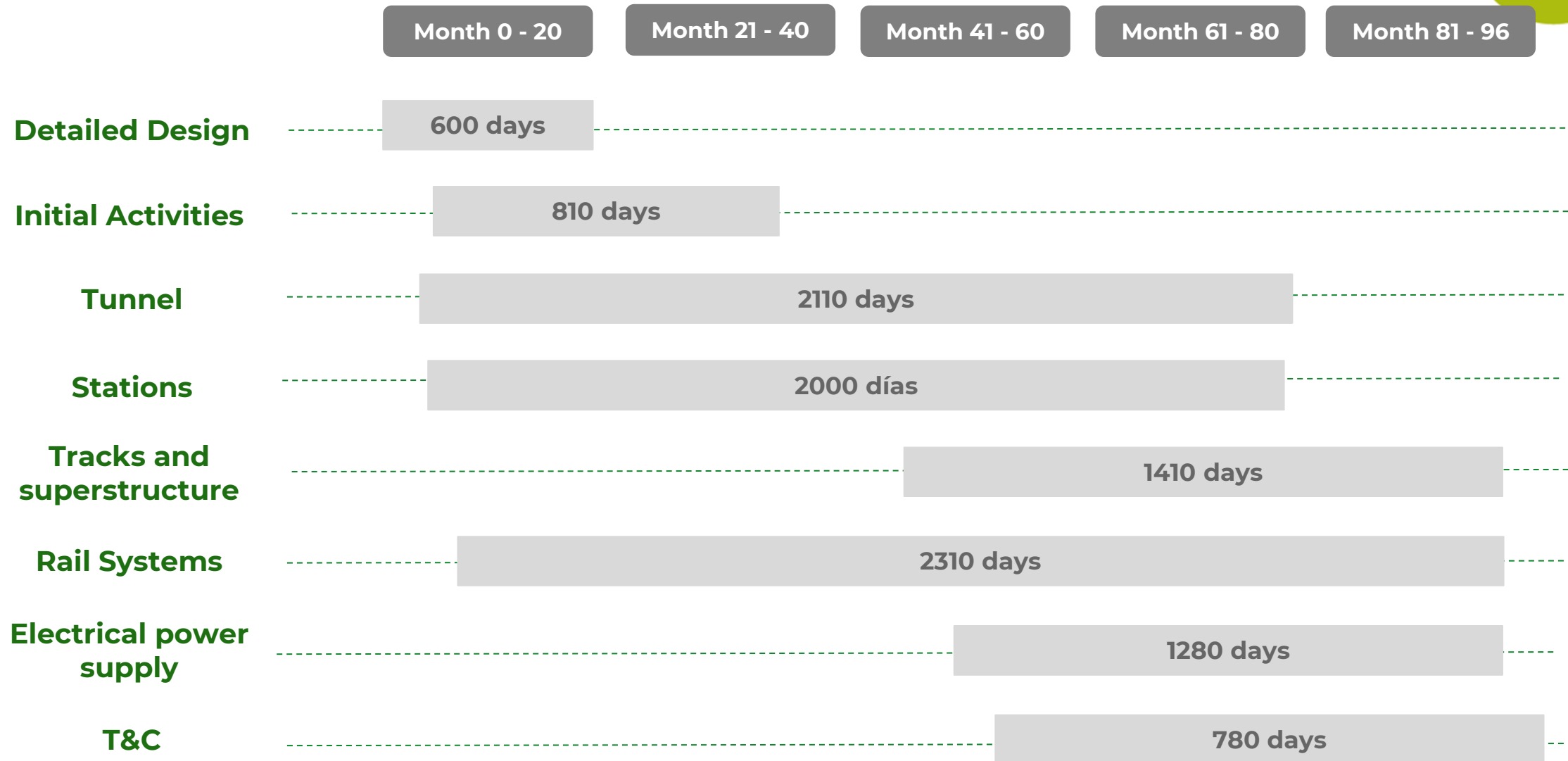
METRO
BOGOTÁ

General Schedule

Work Schedule

Overview

Total L2MB Project duration: 2,940 days





Transaction Structure



METRO
BOGOTÁ

Transaction Structure Scheme



Co-financing agreement between the Republic of Colombia and the District of Bogota



Budget Commitments



Payment Components:

- Bullet payment
- CAO/CAE
- Long term payments



Credit Contract

Financiers

Debt Disbursements



Trust

Equity Contributions

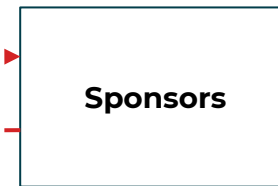
Payments



Contractors

Payments

Contracts



Sponsors

Dividends

Equity Contributions



Concessionaire / SPV

DBOMTF concession

Concession Contract:
Colombian Law
30-year term

- Purpose of the contract**
- **Infrastructure:** Studies and designs, financing, construction, maintenance and reversion.
 - **Rolling stock and metro-rail systems:** Studies and designs, financing, provision, replacement, testing, commissioning, operation, maintenance and reversion.
 - **Operation and maintenance:** Provision of public passenger rail transport service.

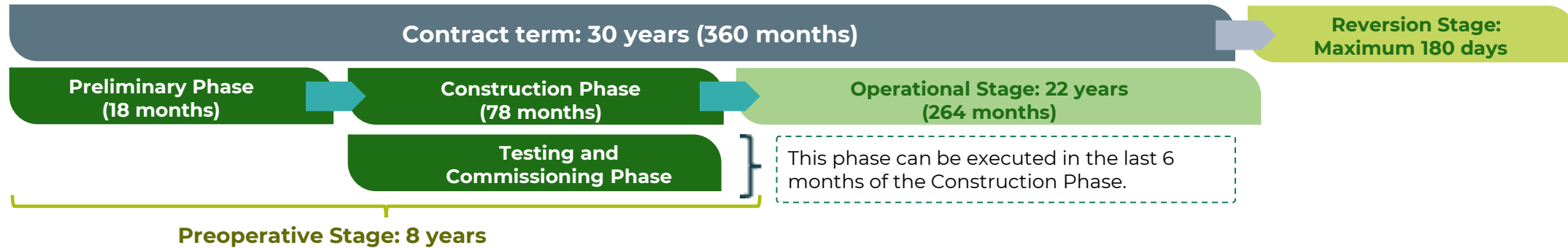
Conventions

Money Flow

Contract

Transaction Structure

Contract stages



Main Activities

- Financial closing.
- Funding accounts and sub-accounts.
- Delivery of lands.
- Execution of management of public services networks.

Main Activities

- Construction of infrastructure.
- Provision and delivery of rolling stock.
- Installation of metro-rail systems.

Main Activities

- Operate the infrastructure, rolling stock and metro-rail systems. and metro-rail systems.
- Provision of the Project's transportation services.

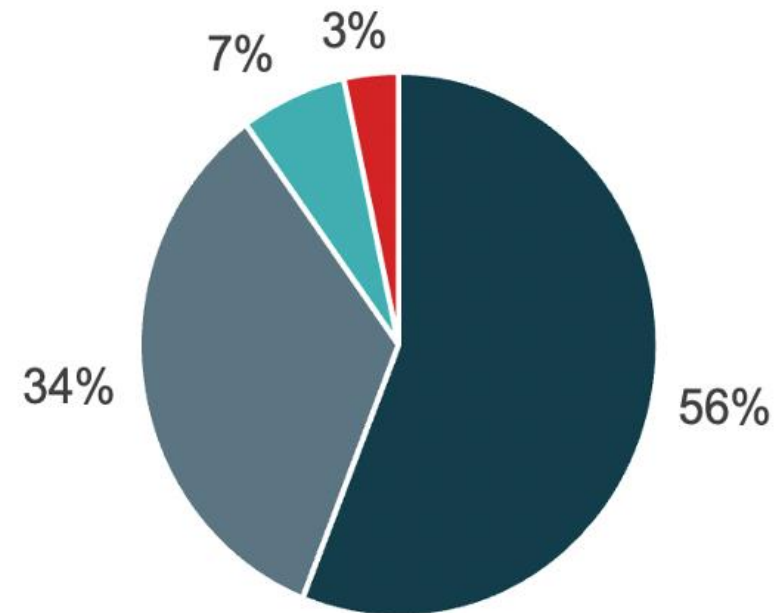
Main Activities

- Transition to the new operator.

Transaction structure

CAPEX

Description	Value (USD Mn)*
Total concessionaire	\$ 3.383
Total EMB	\$ 371
Total	\$ 3.754



- Civil Work
- Rolling stocks and railways systems
- Land acquisition
- PMO/ Supervision

*Constant Colombian pesos of 2021, at and Fx. of COP 4.300 / USD

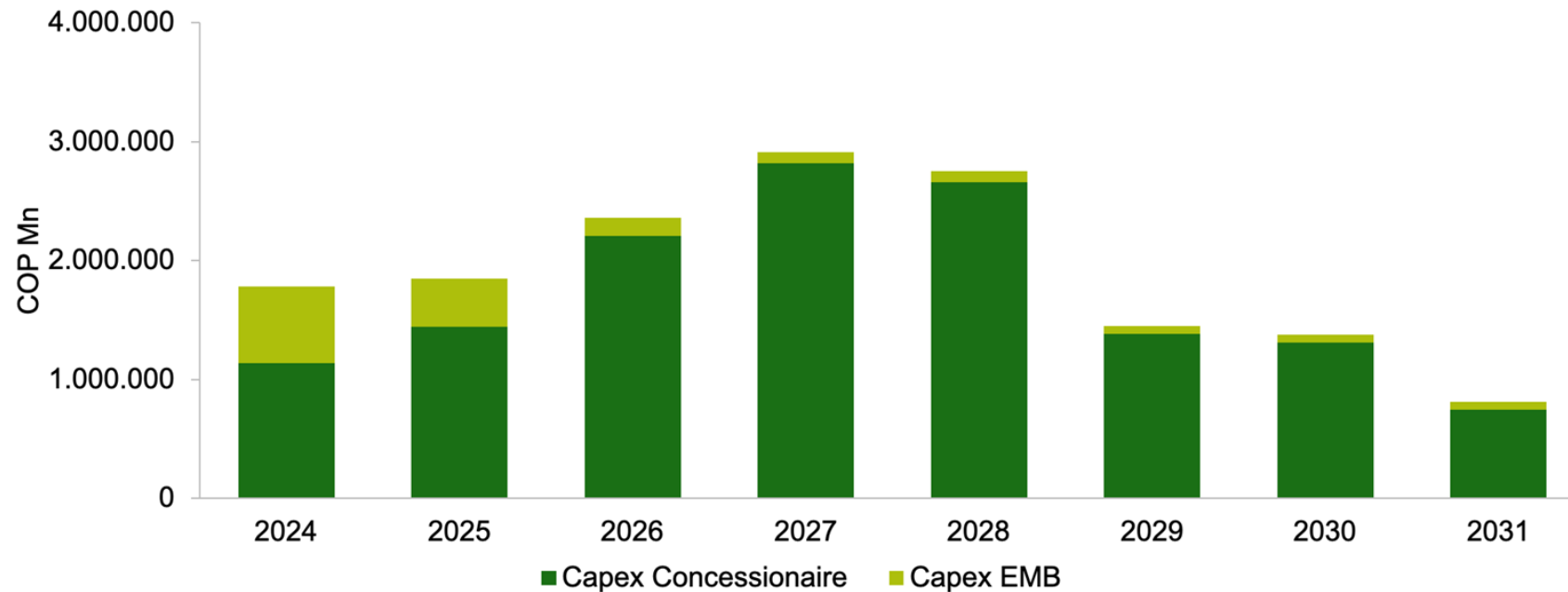
Transaction structure

Investment cash flows

Estimated investment

- The initial investments will be done by the EMB: land acquisition and transfer of utility networks will be done according to a schedule predefined by the EMB.
- The remaining investments will be done by the Concessionaire.

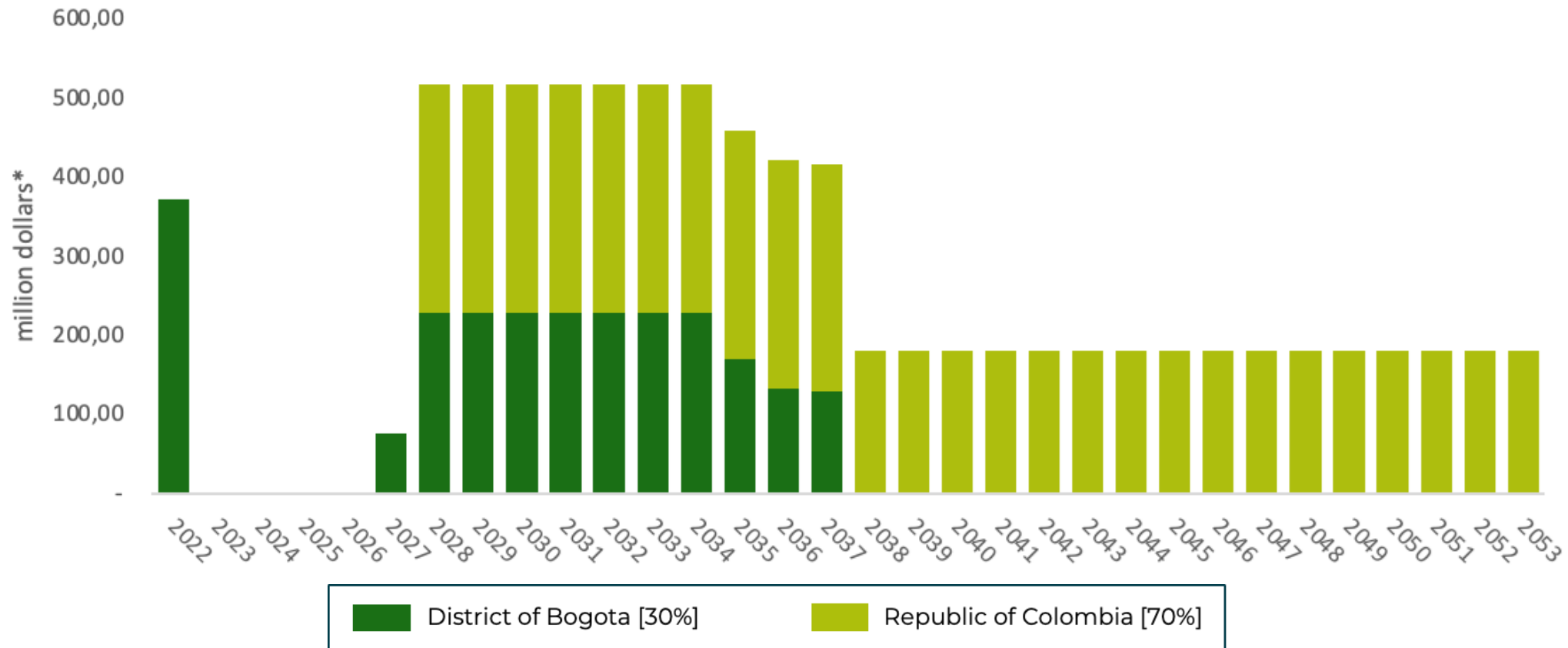
Capex graph*



* Values in constant prices as of December 2021.

Transaction structure

Cofinancing agreement



- The Cofinancing Agreement between the District and the Nation was signed on Thursday, August 4, 2022
- Total of Budget Commitments: 8.233 million dollars in constant pesos of December 2021
- *Constant Colombian pesos of 2021, at and Fx. of COP 4.300 / USD

Risks



Principle considerations

- Eleven (11) areas of evaluation were established for L2MB.
- A total of 51 risks have been identified.
- Alignment with the state's contractual risk management policy. CONPES 3961 of 2019
- Application of Ministry of Finance's methodology for risk assessment.

Commercial (4)

Operation & Maintenance (8)

Design (3)

Currency (2)

Construction (13)

Economic (1)

Property (7)

Financial and liquidity (3)

Environmental, social and cultural heritage (5)

Force majeure (2)

Regulatory change (3)

Risks

Geological

PRINCIPLE 1

Balanced risk allocation

PRINCIPLE 2

Unforeseeable physical conditions

PRINCIPLE 3

Contractual geotechnical baseline

PRINCIPLE 4

End time adjustment

PRINCIPLE 5

Contract price adjustment

- The favorable or unfavorable effects on costs derived from the variation in the costs of the quantities of work paid at unit prices associated with the activities not contemplated in the construction of the subway section, due to variations in the conditions of the Geotechnical Baseline and considered as conditions not contemplated.
- The favorable or unfavorable effects derived from the time spent on site available to the contractor due to variations in quantities of work at unit prices for activities not contemplated in the subway section, by virtue of differences in the conditions of the geotechnical baseline and considered as conditions not contemplated.



Assignment

Shared

Risks

Allocation

Risk	Description	Assignment	
		SPV	EMB
Construction	Variation in work quantities	✓	
	Variation in costs and time of relocation of unidentified main utilities networks.		✓
	Damages, losses, total or partial destruction or theft of assets owned by the Concessionaire.	✓	
	Processing of licenses, permits and authorizations.	✓	
	Constitution, extension or reissuance of the risk coverage mechanisms in charge of the Concessionaire.	✓	
	Variation of work quantities related to repairs, adjustments due to deviations and relocation and protection of utilities networks.		✓
	Variation in the prices of activities paid through unit prices and quantities of work.	✓	
	Completion of work in terms other than those initially foreseen.	✓	
	Costs of work quantities paid at unit prices associated with activities not contemplated.	✓	✓
	Time spent on site available to the contractor due to variations in quantities of work at unit prices for activities not contemplated.	✓	✓
	Variation in rolling stock acquisition prices	✓	
	Management of procedures for the installation and commissioning of rolling stock and equipment.	✓	
	Delays in the installation and commissioning of rolling stock.	✓	

Risks

Allocation

Risk	Description	Assignment	
		SPV	EMB
Design	Preparation and/or modification and/or adaptation of studies and designs.	✓	
	Environmental licensing requirements		✓
	Design changes		✓
Property management	Variation of the costs necessary for the disposition of the properties.		✓
	Variation of the corresponding costs as a result of the invasion and/or legal defense of the Premises and/or Public Space that occur post delivery by the EMB.	✓	
	Variation of the corresponding costs as a result of the invasion and/or legal defense of the Premises and/or Public Space occurring prior to their delivery by the EMB.		✓
	Conditions of the properties and other infrastructure delivered to the Concessionaire.	✓	
	Disposition, management and obtaining of the required land and sites not subject to Reversion.	✓	
	Variation in the term of property acquisition whose acquisition is in charge of the EMB.		✓
	Variation in the term of property acquisition whose acquisition is in charge of the Concessionaire.	✓	

Risks

Allocation

Risk	Description	Assignment	
		SPV	EMB
Environmental, social and cultural heritage	Social and Environmental Management and the processing, obtaining and compliance of licenses.	✓	
	Management of permits and interventions in Cultural Interest Assets.		✓
	Management of permits and interventions in Cultural Interest Assets for activities in charge of the Concessionaire.	✓	
	Processing, obtaining and compliance of an Environmental License.		✓
	Deadlines and costs in the proceedings derived from prior consultation agreements.		✓
Operation and Maintenance	Damages, losses, total or partial destruction or theft of goods, materials and equipment owned by the Concessionaire caused by third parties.	✓	
	Variations in costs and quantities for the operation and maintenance of the project.	✓	
	Variations in market prices and other activities necessary to guarantee the connection and availability of electric power.	✓	
	Constitution, extension or reissuance of coverage mechanisms.	✓	
	Obtaining and complying with the licenses, authorizations and permits required for the Project, other than those included in the Environmental and Social Management of the Project.	✓	
	Variations in the payment for the number of kilometers traveled by the rolling stock.		✓
	Unavailability or failure of Information and Communications Technology services.	✓	
	Technological failures of the equipment.	✓	

Risks

Allocation

Risk	Description	Assignment	
		SPV	EMB
Commercial	Variation in resources collected, including variations in the value of the tariff.		✓
	Variation in Commercial Operating Revenues.	✓	✓
	Fare evasion	✓	
	Fraud risk: Access to L2MB systems through fraudulent use.		✓
Currency	Variations of Colombian peso against other currencies not hedged by EMB.	✓	
	Hedging by EMB of payments or disbursements in foreign currency.		✓
Economical	Colombian and international economic indicators and the purchasing power of the peso.	✓	✓
Financial and liquidity	Conditions and changes in financing and liquidity risk borne by the Concessionaire.	✓	
	Variations in the profitability of the business and obtaining profits.	✓	
	Market risk caused by changes in the valuation of CAE or CAO certificates.	✓	

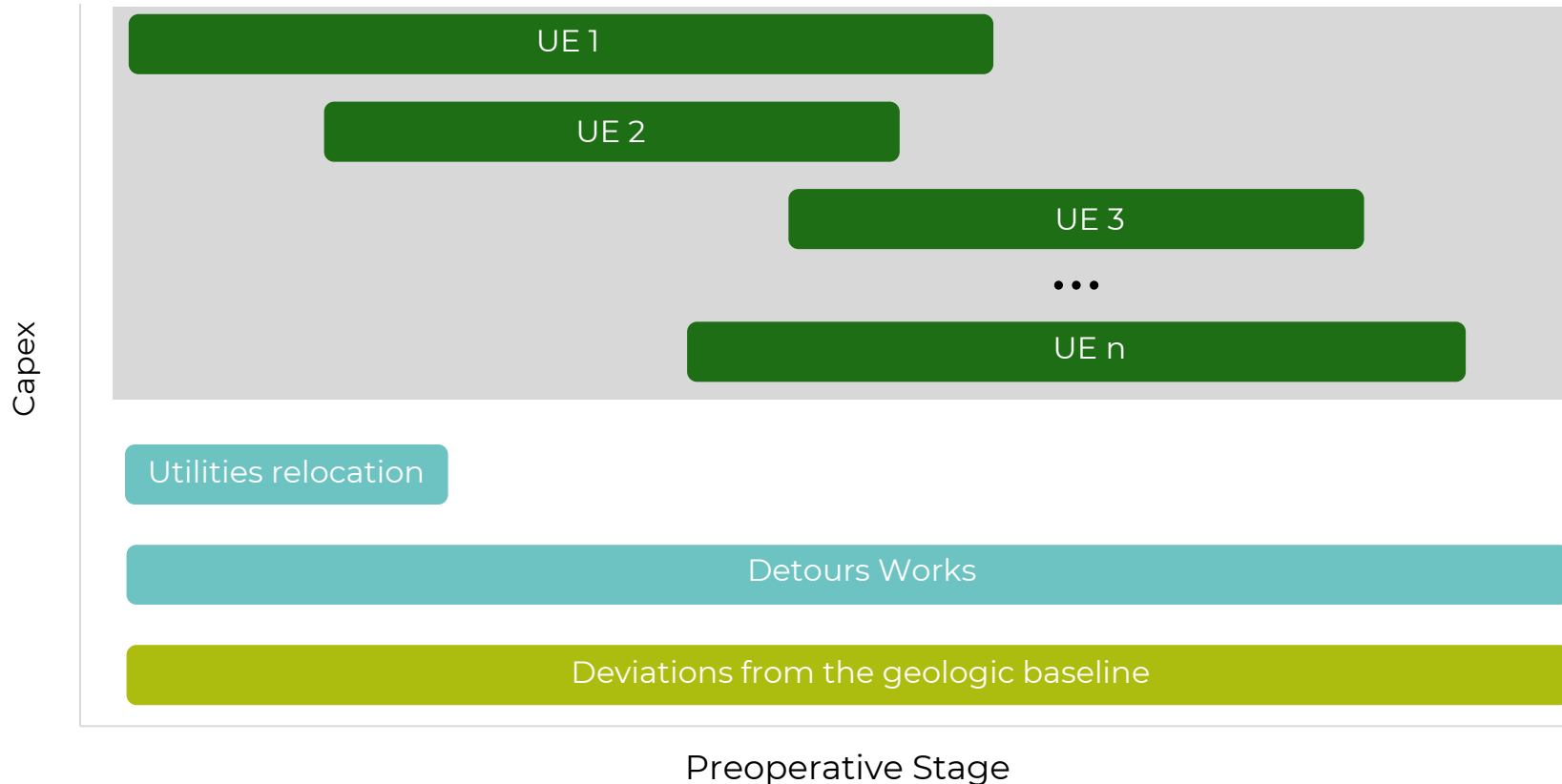
Risks

Allocation

Risk	Description	Assignment	
		SPV	EMB
Regulatory change	Modification in regulations or unilateral decision of the Contracting Entity.		✓
	Change in Tax Law	✓	✓
	Changes in the Applicable Law, except for the hedges in charge of EMB.	✓	
Force majeure	Physical damage to assets due to insurable exonerating events of liability	✓	
	Physical damage to assets due to non-insurable exonerating events (consequential damage, loss of profits).	✓	✓

Transaction structure

CAPEX Distribution



- The Capex is divided in Execution Units (UE).
- Upon completion of each UE the Concessionaire will have the right to receive up to 4 components of the remuneration. (A, B, C & D).

- In the Project, a Capex is contemplated to be paid at unitary prices, corresponding to utility networks relocation and Detour Works (Component F) and for deviations from the geologic baseline (Component G).

Transaction structure

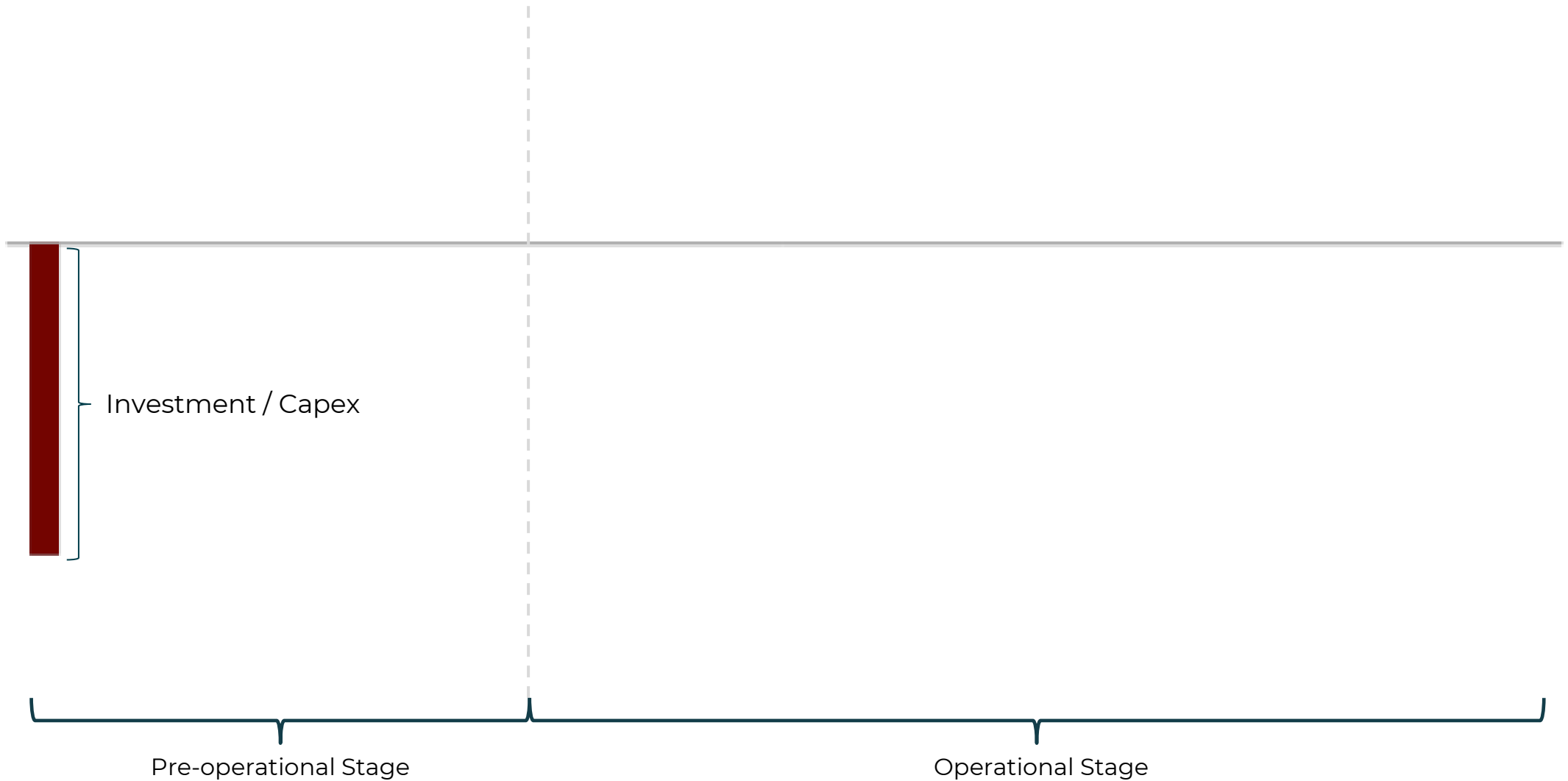
Remuneration mechanisms

	Currency	Remuneration
Component A	COP	<ul style="list-style-type: none">▪ Bullet payment.
Component B	COP	<ul style="list-style-type: none">▪ Work Progress Certificate (CAO).
Component C	US\$	<ul style="list-style-type: none">▪ Bullet payment.
Component D	US\$	<ul style="list-style-type: none">▪ Execution Certificate (CAE).
Component E	COP	<ul style="list-style-type: none">▪ Long-term payment for Infrastructure and Rolling Stock.
Component F	COP	<ul style="list-style-type: none">▪ Payment for relocation of utilities and detour works.
Component G	COP	<ul style="list-style-type: none">▪ Payment in unit prices remunerating deviations from the geological line.
Component H	COP	<ul style="list-style-type: none">▪ Early termination incentive.
Component I	COP	<ul style="list-style-type: none">▪ Commercial revenues.
Component J	COP	<ul style="list-style-type: none">▪ Payment for fixed operating costs.
Component K	COP	<ul style="list-style-type: none">▪ Payment for variable operating costs.

Payments are updated by CPI and/or U.S. CPI.

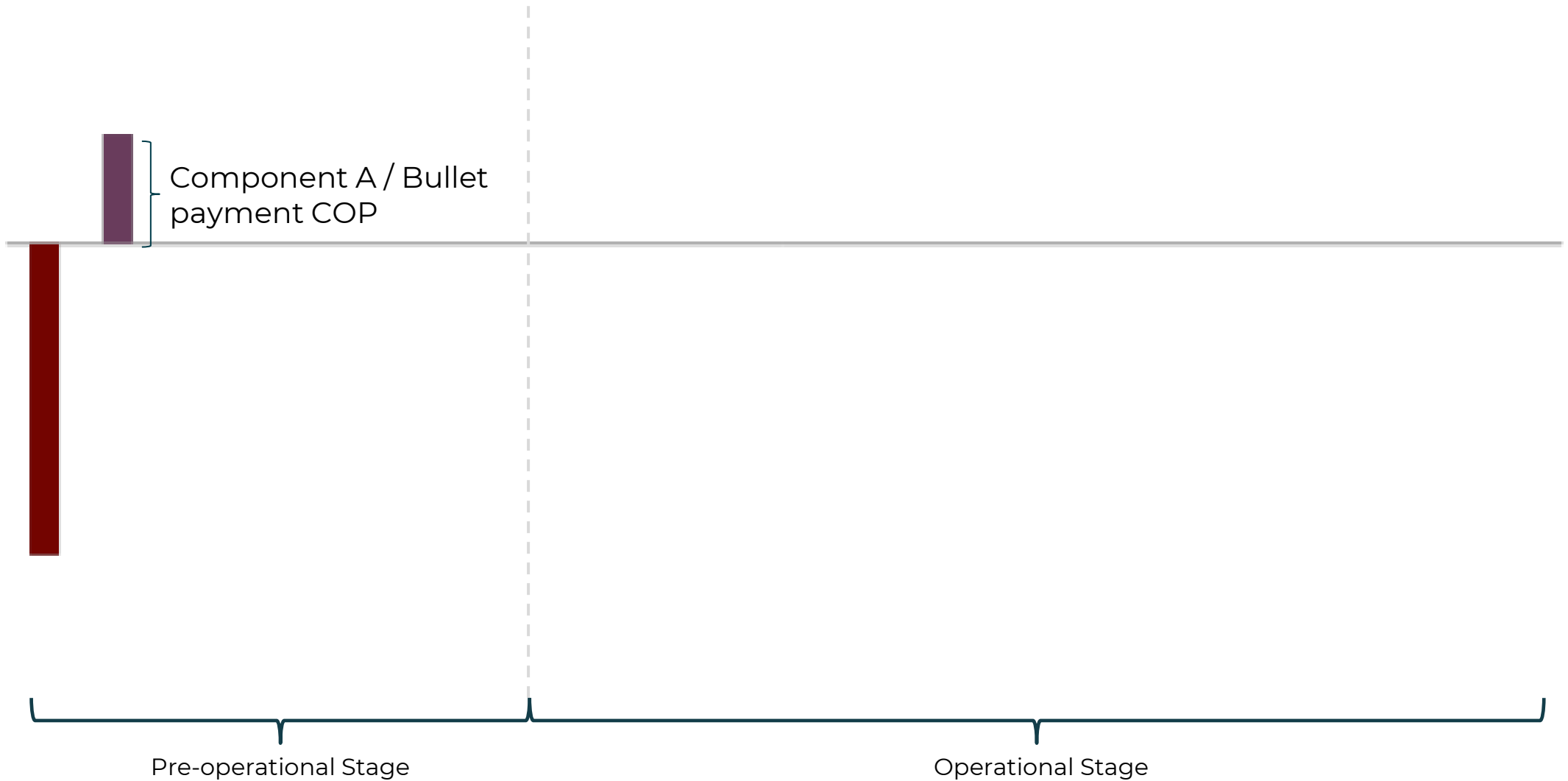
Transaction structure

Payment Components - UE



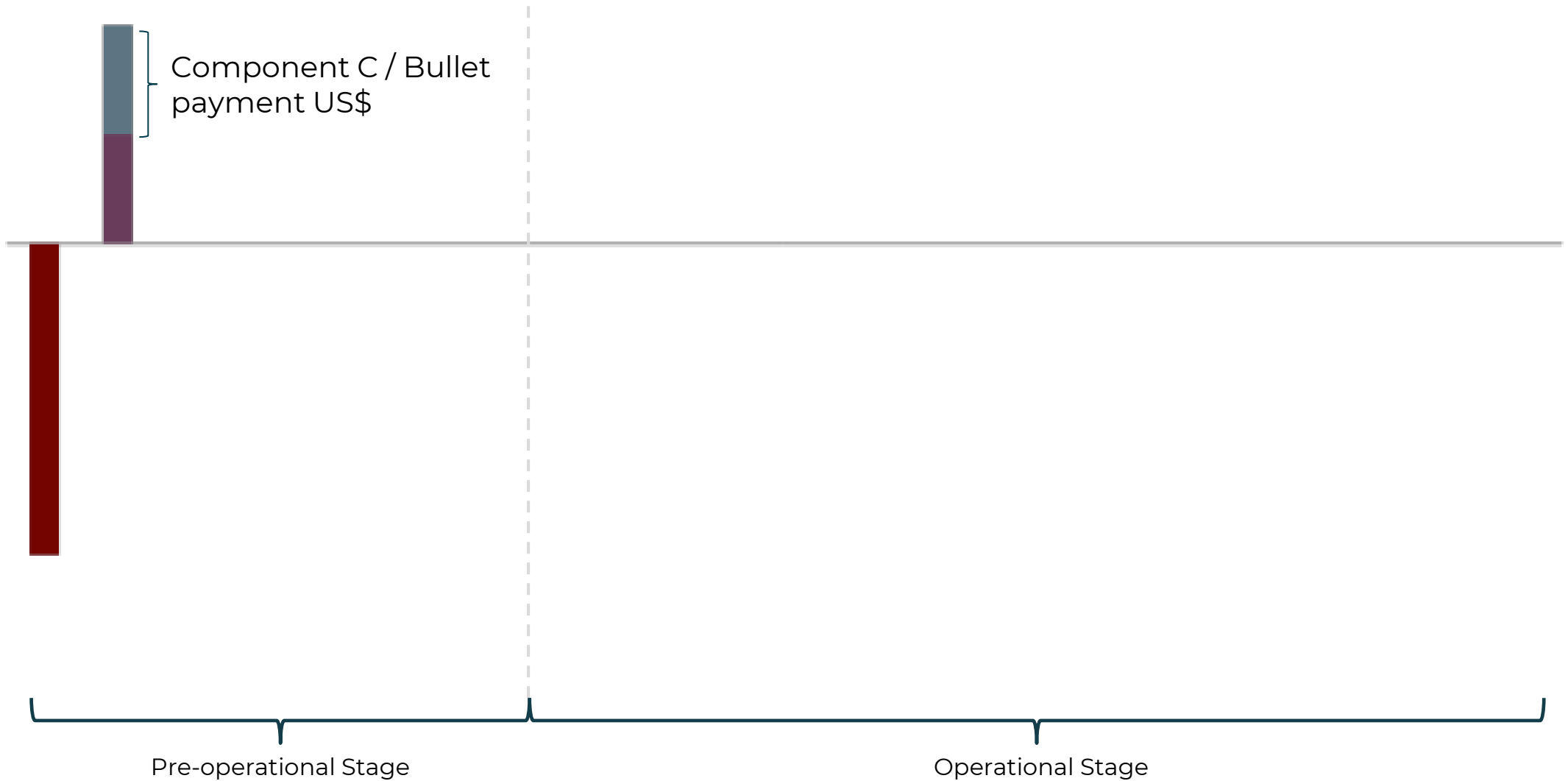
Transaction structure

Payment Components - UE



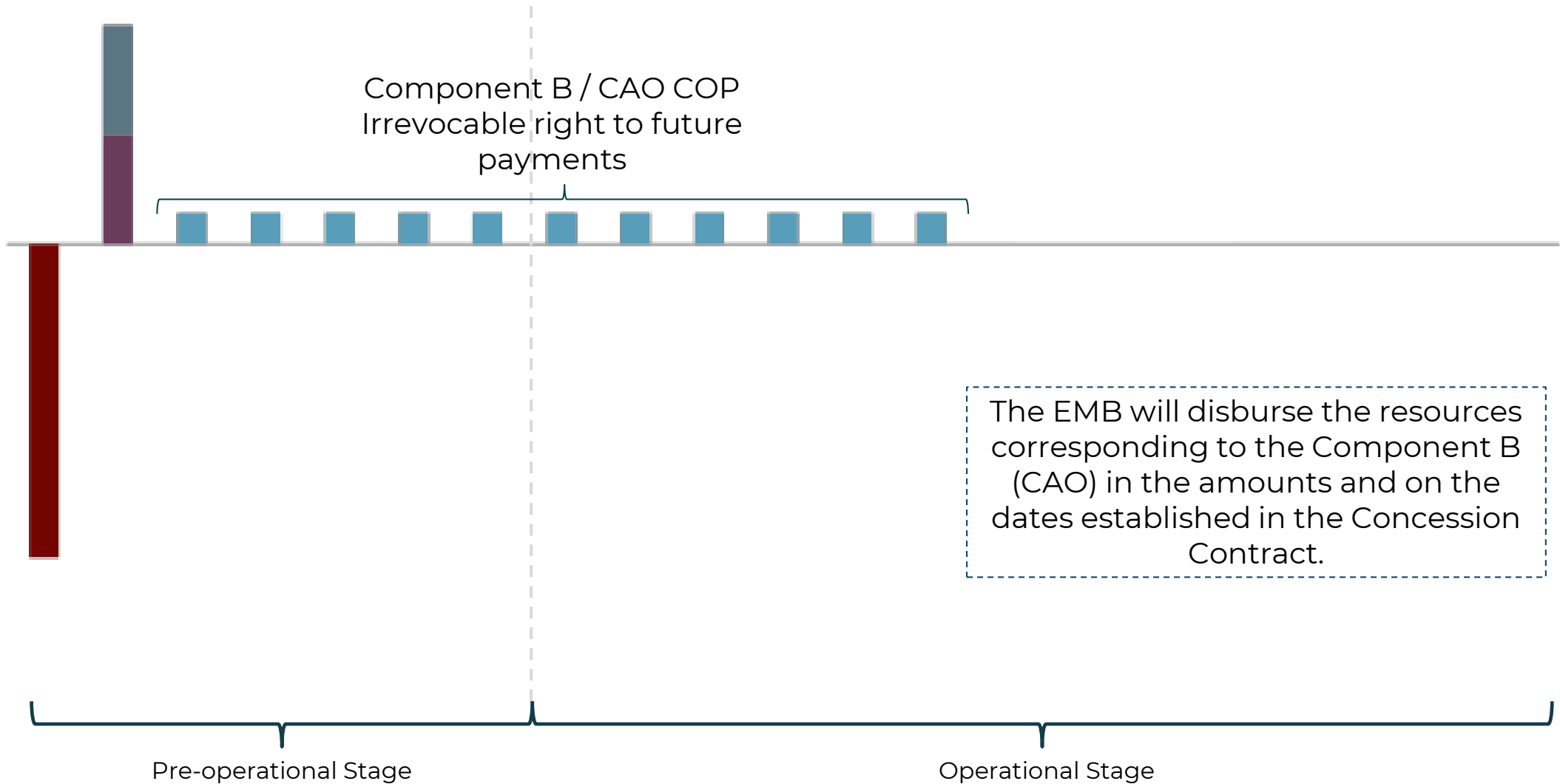
Transaction structure

Payment Components - UE



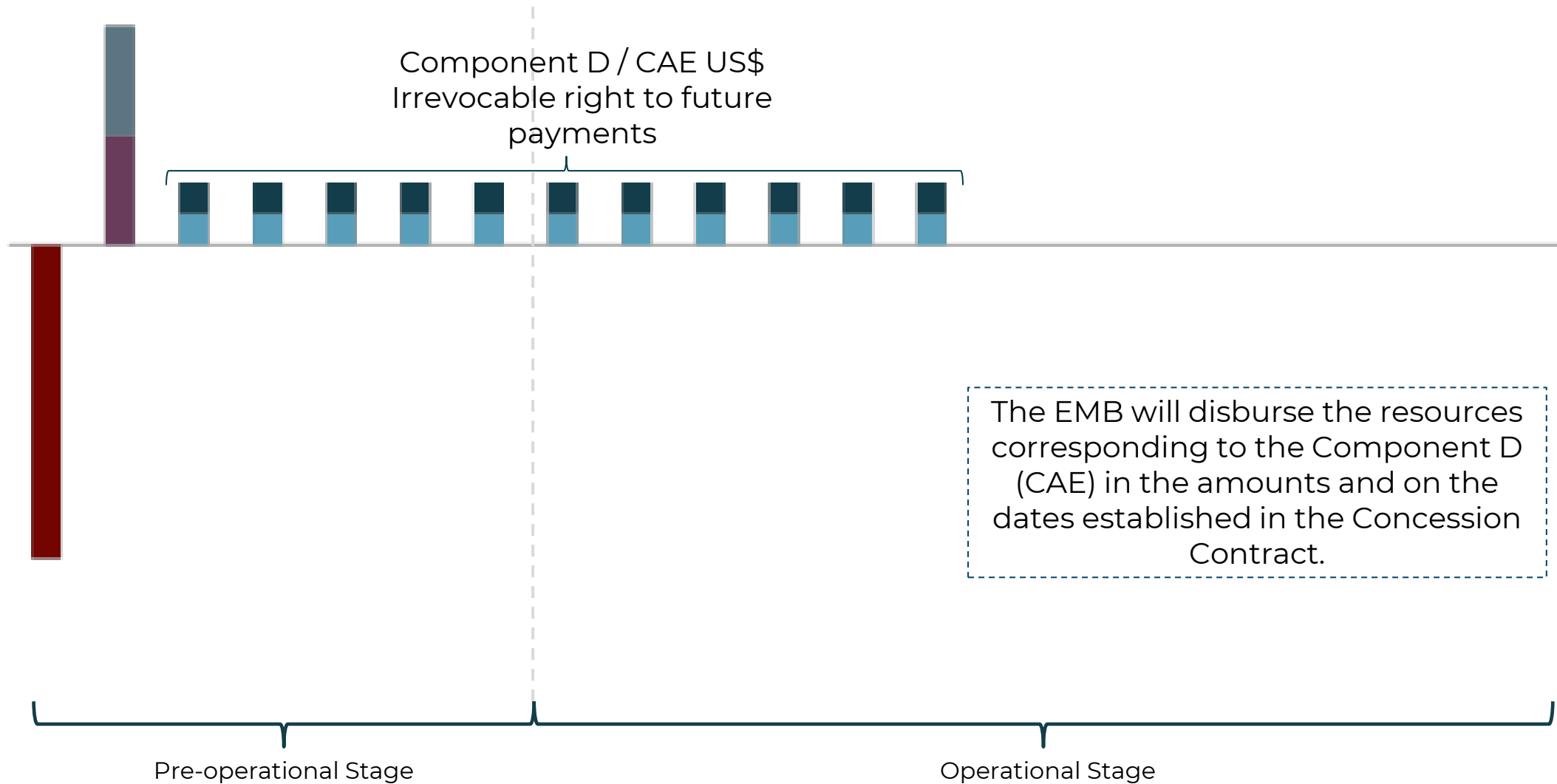
Transaction structure

Payment Components - UE



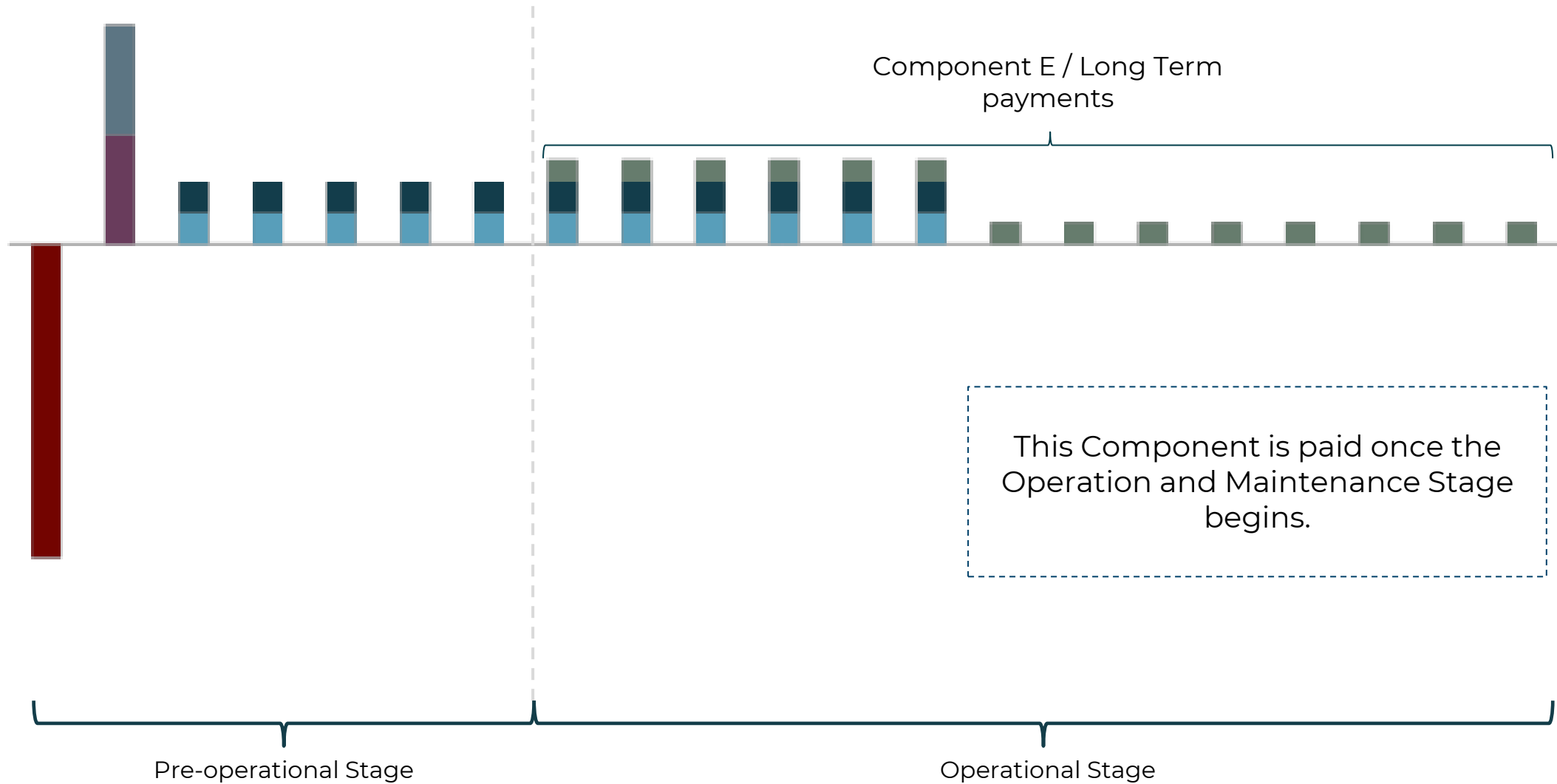
Transaction structure

Payment Components - UE



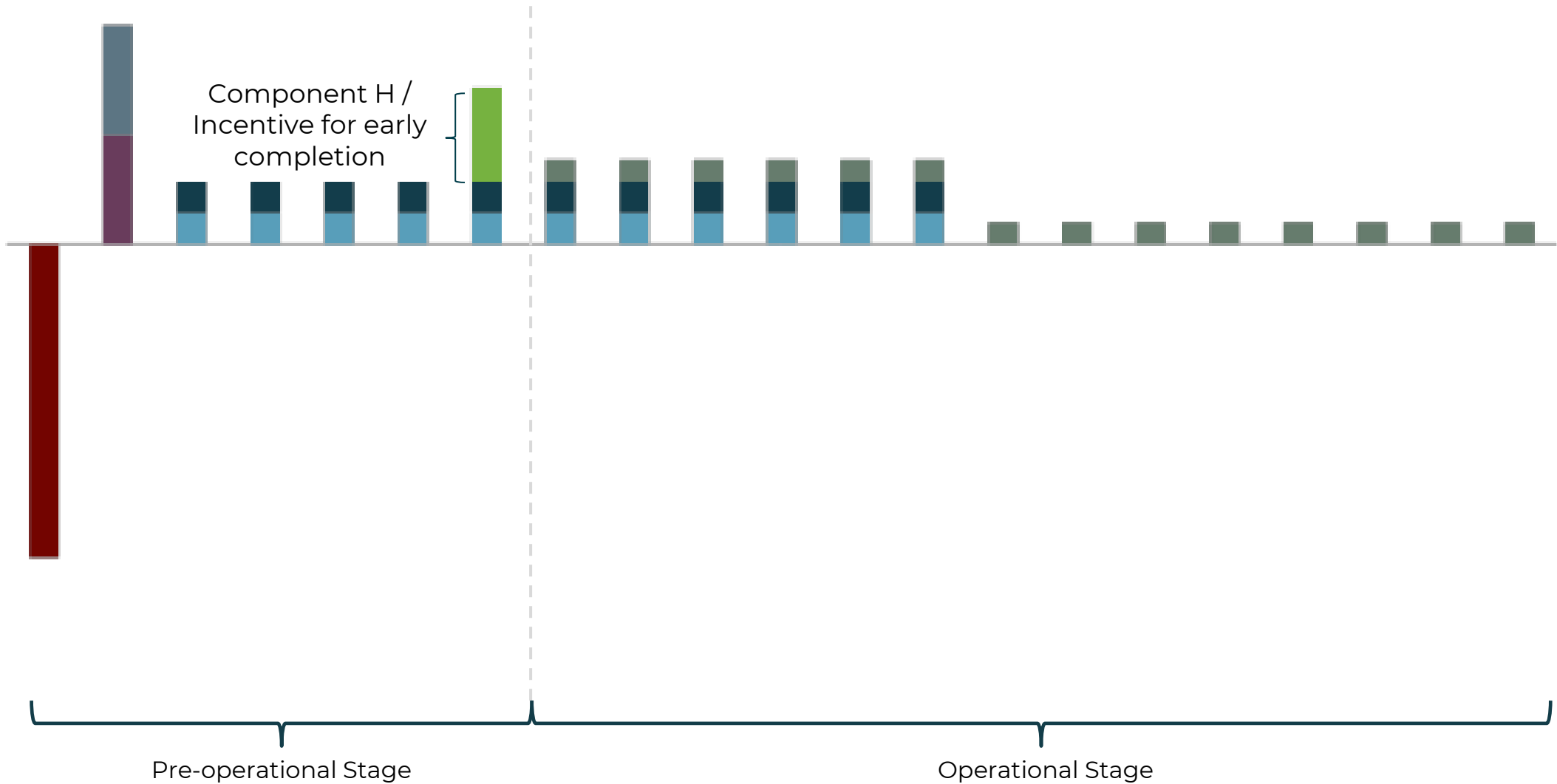
Transaction structure

Construction completion payment components



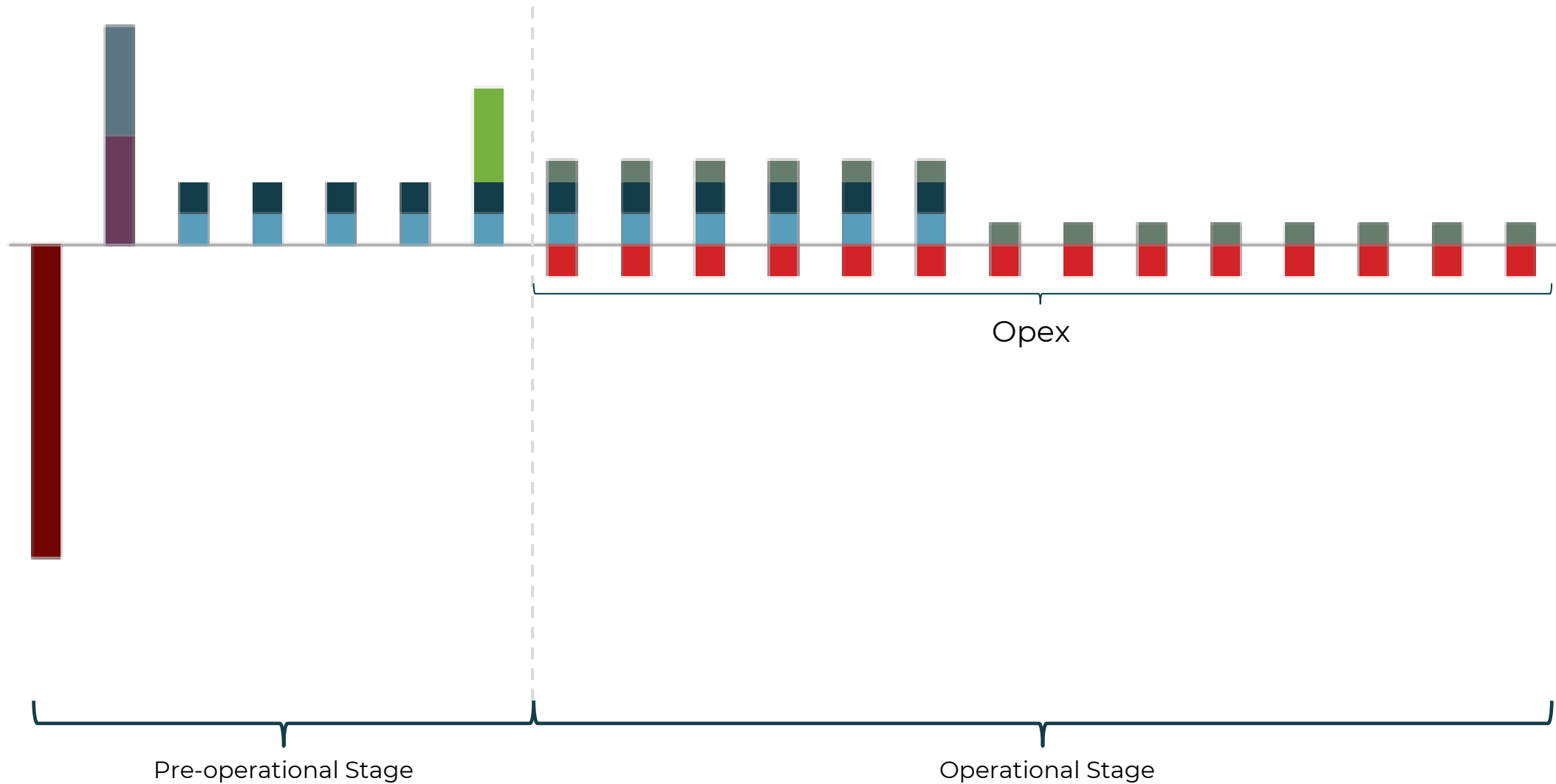
Transaction structure

Construction completion payment components



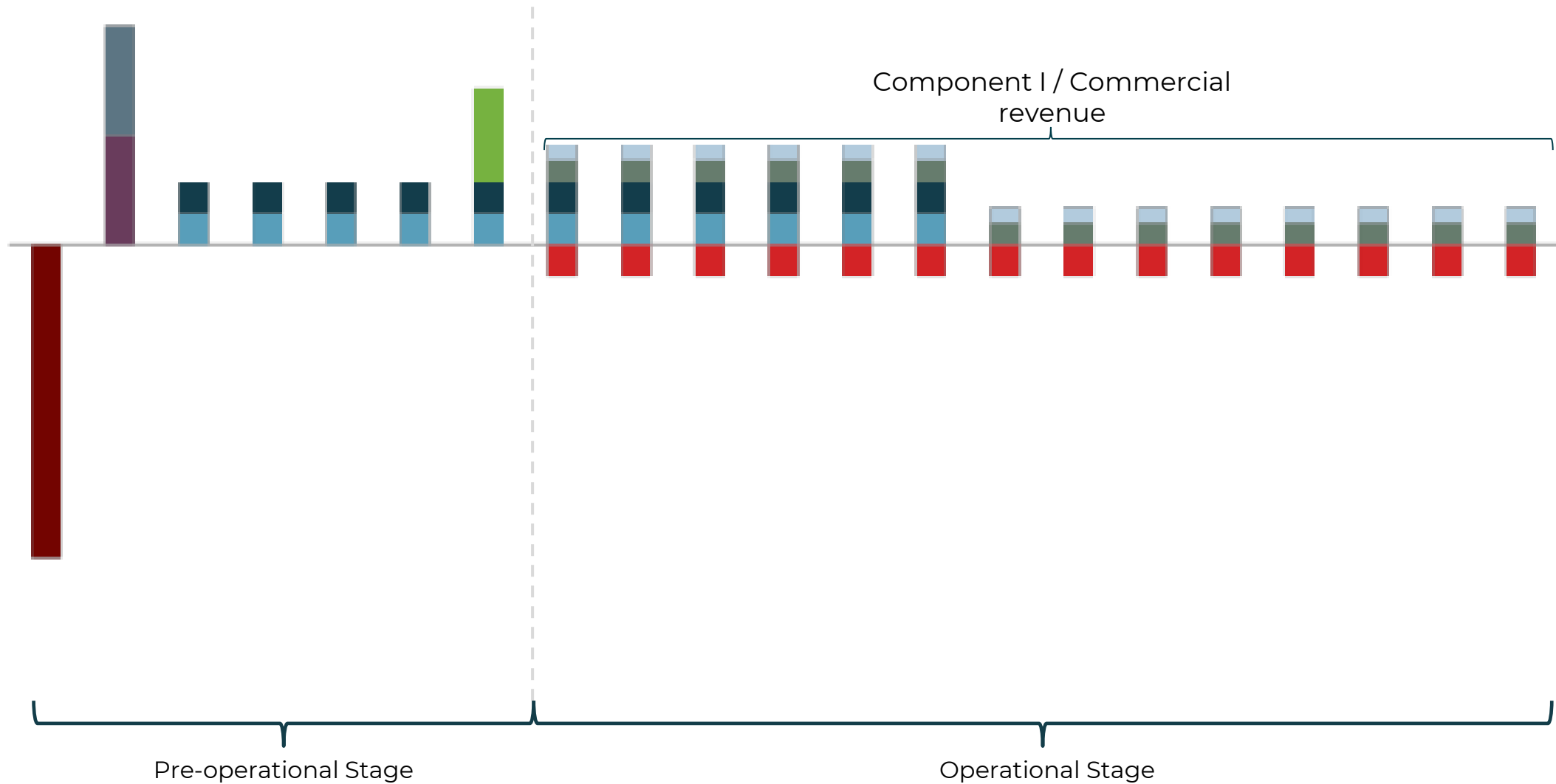
Transaction structure

Payment Components - O&M



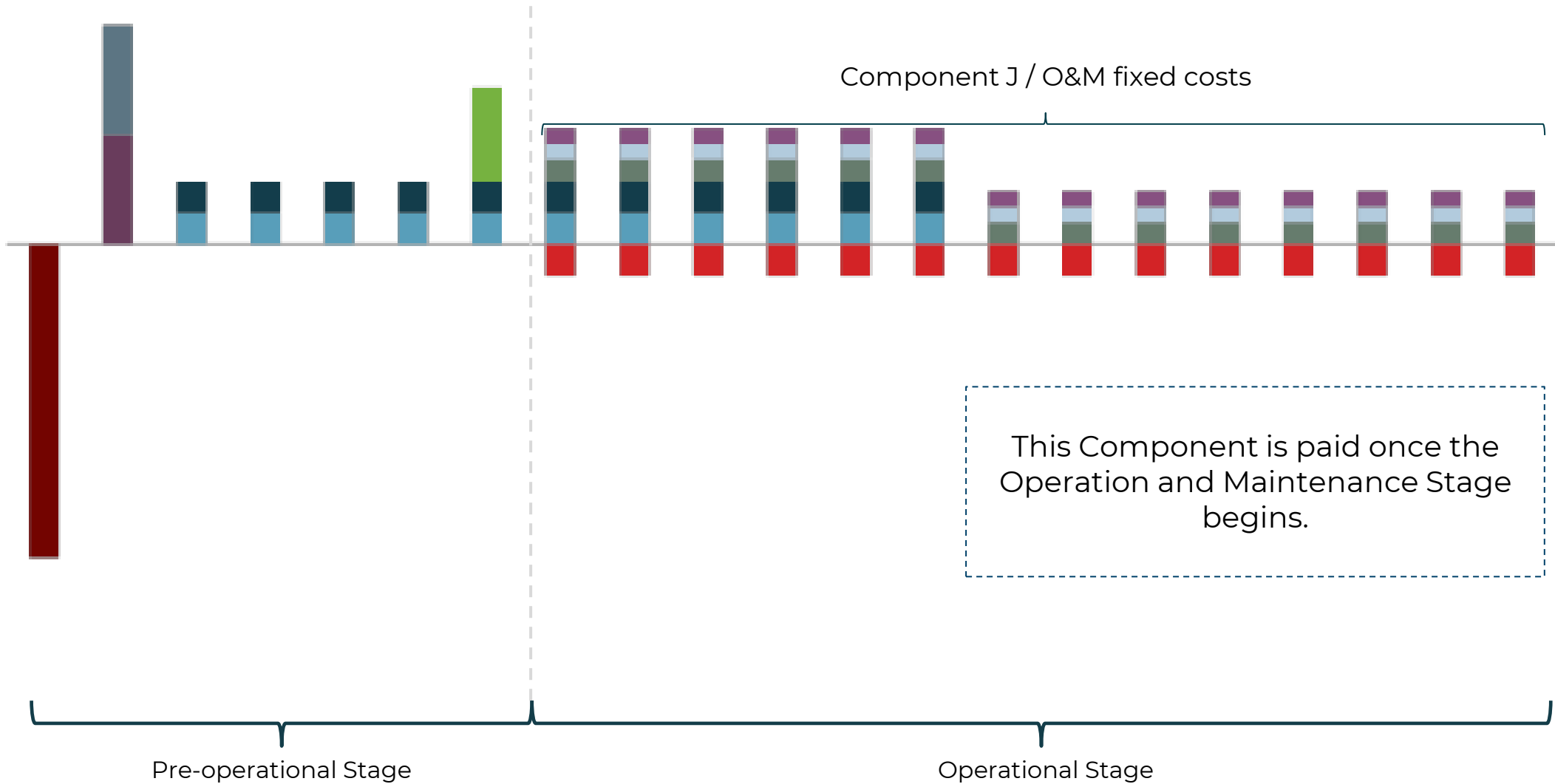
Transaction structure

Payment Components - O&M



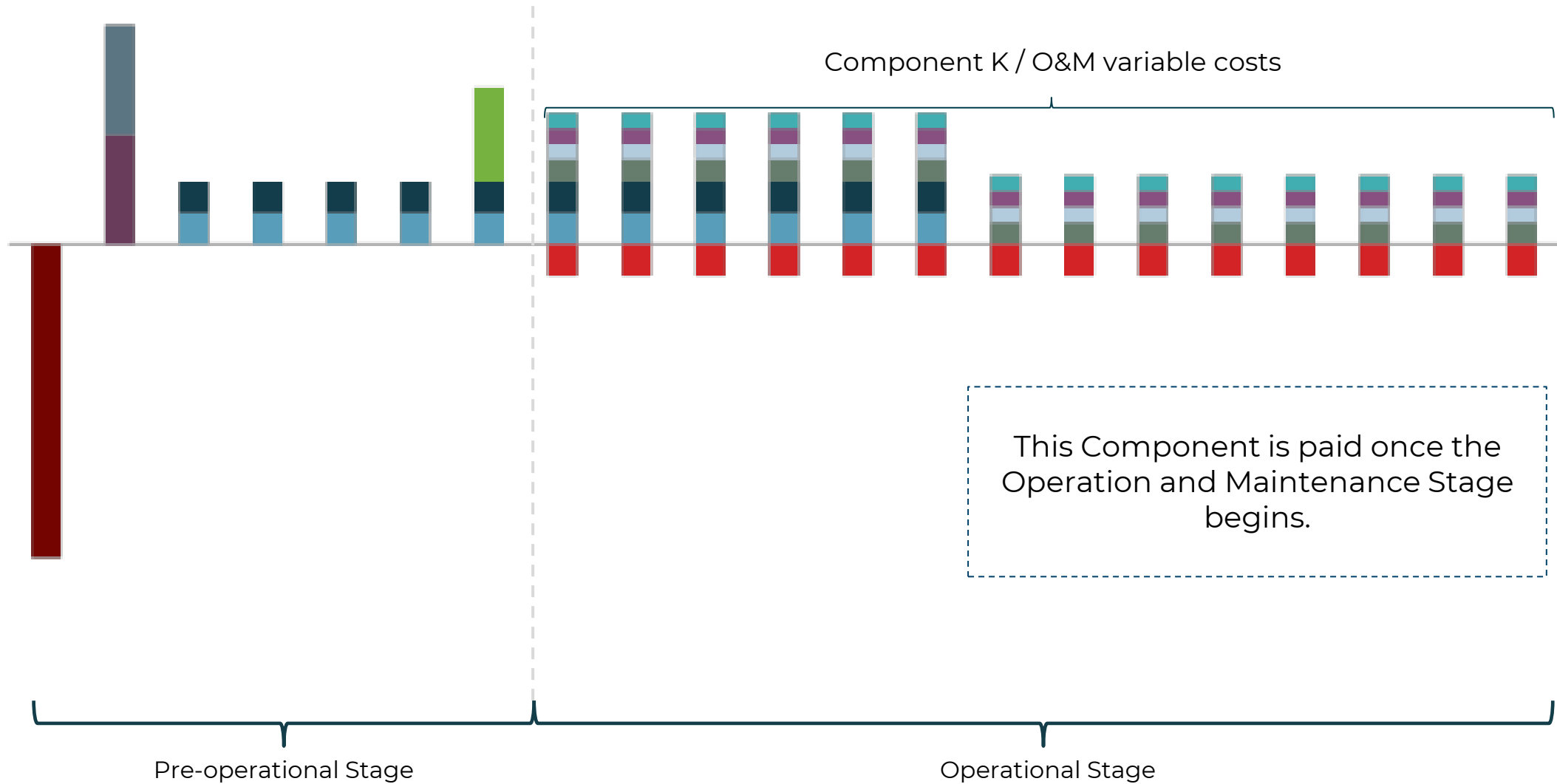
Transaction structure

Payment Components - O&M



Transaction structure

Payment Components - O&M





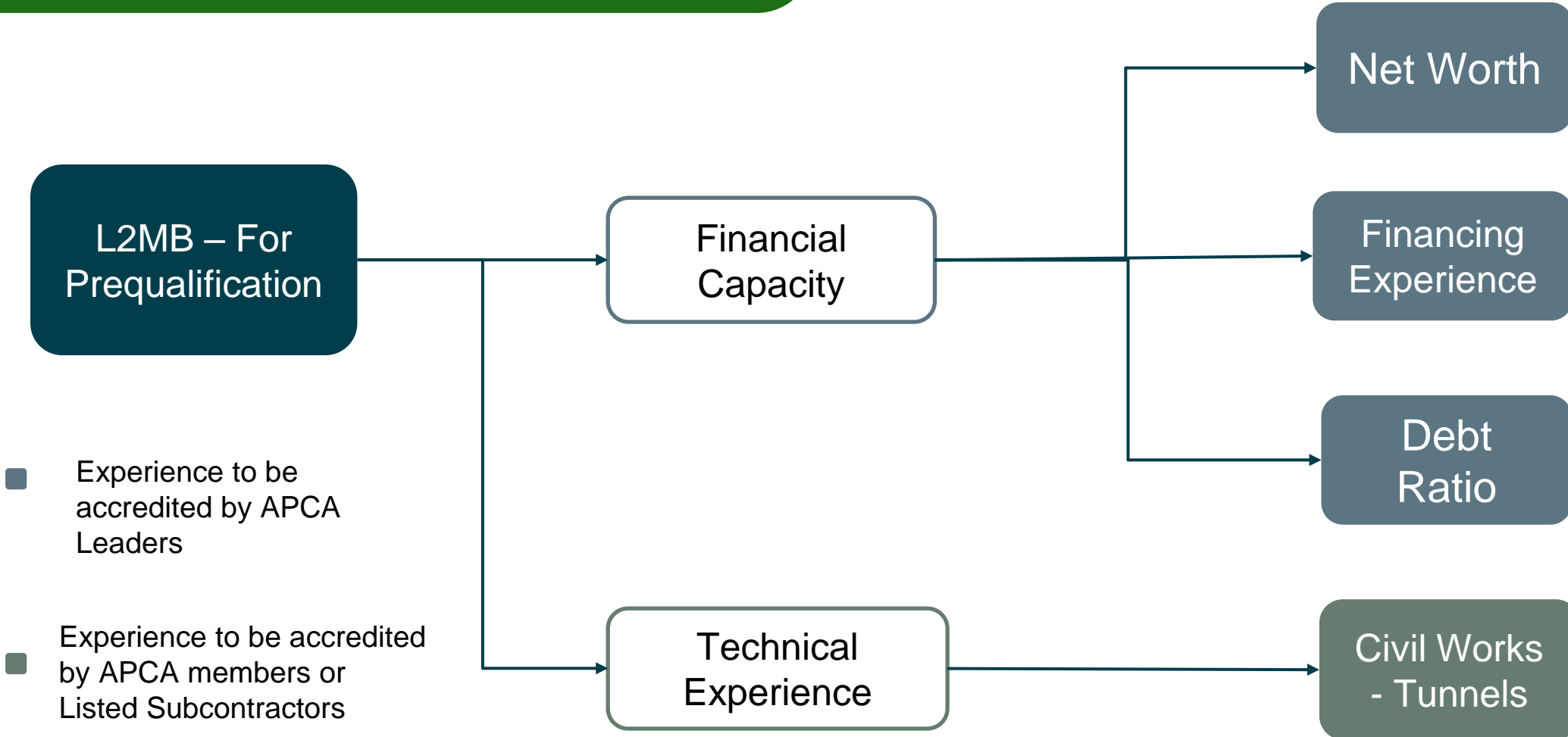
Next Steps



METRO
BOGOTÁ

Selection Process

Experience required for Prequalification



- Experience to be accredited by APCA Leaders
- Experience to be accredited by APCA members or Listed Subcontractors

• The experience may be accredited directly or through companies of the related companies

Selection Process

Experience required once the Concession Agreement is executed

L2MB – After the execution of the Concession Agreement

Technical Experience

Railroads installation

Rolling Stock manufacturing and supply

CBTC Conception

Design Experience

Underground building construction in urban zones

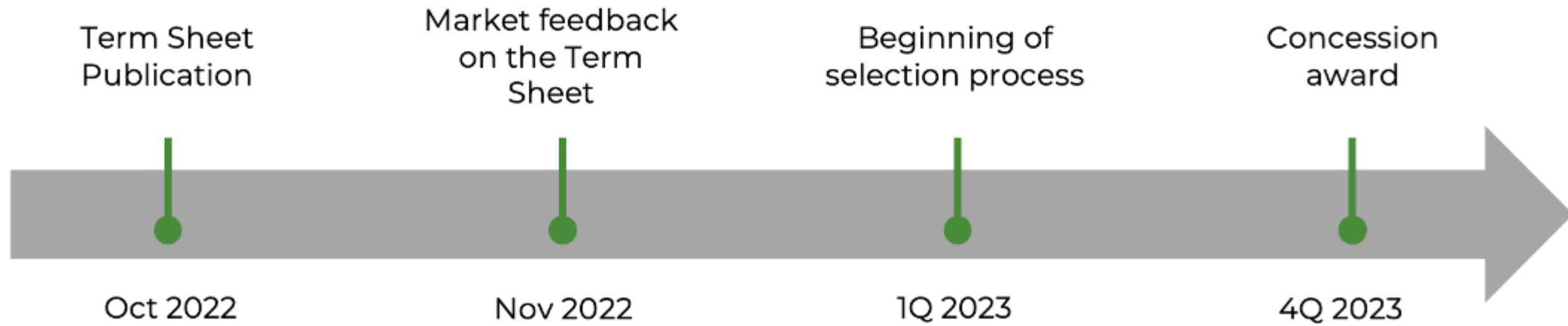
Operation Experience

- Experience to be accredited by APCA members or Listed Subcontractors

- The experience may be accredited directly or through companies of the related companies
- This experience will be accredited after the execution of the Concession Agreement in its different stages

Selection process

Main dates



Roadshow

Agenda

1

Bogota



Oct 6th 2022

2

Seoul



Oct 13-14th 2022

3

Cartagena/Bogota

Nov 2022

5

International

Dec 2022

4

International

Dec 2022



METRO
BOGOTÁ

THANK YOU



MOVIUS
U.T. MOVILIDAD URBANA SOSTENIBLE

L2MB

Integral Structuring

Línea 2 del Metro de Bogotá