MINISTRY OF TRANSPORT AND ROAD SAFETY

JERUSALEM TRANSPORTATION MASTER PLAN TEAM

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THE JERUSALEM LIGHT RAIL

blueline

Get on board with success

Get on board with success

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Jerusalem, Israel's Largest Metropolis

Population 920,000

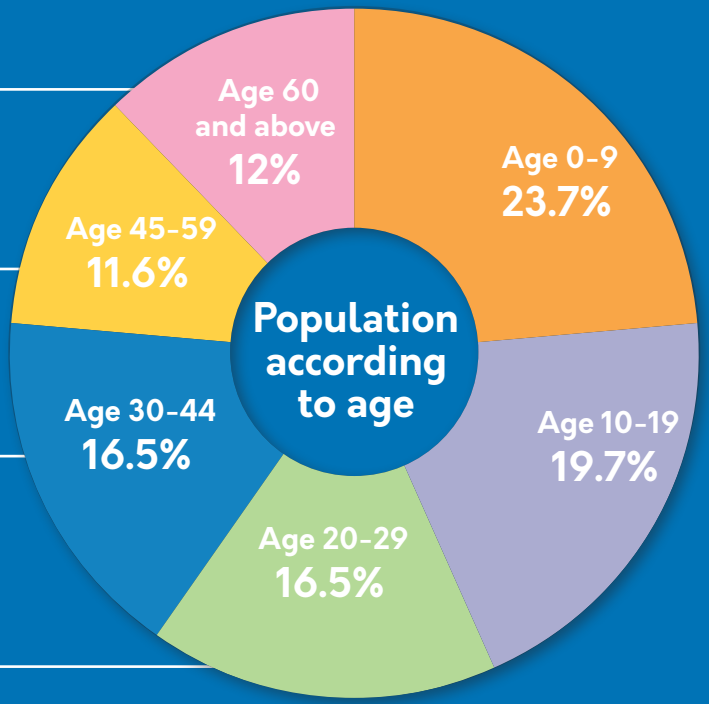
Natural growth: 2.1%
Average No. of People per Household: 3.9
Population density: 7,200 people per square km

Education

Number of elementary and high school students: 265,500
Number of higher education students: 40,000
Number of academic institutions: 14

Business and Employment

Rate of employment: 68% of the total population
Number of local businesses: 37,500
Local business growth: 1.6% per year



Traffic and Transportation

Vehicles per 1000 people

1972 – 66
1995 – 153
2018 – 221
2030 – 308

How people travel by means of transportation

Total motorised travellers:
25% by Public Transportation
75% by Car

Means of travel:
68% Motorised
32% Non-Motorised

Frequency of travel by public transportation

36% daily
13% almost daily
22% up to twice a week
29% seldom

Jerusalem 2020 – at the Forefront of Public Transportation in Israel

The LRT Vision in Jerusalem

The light rail network in Jerusalem is designed to transform Israel's capital and largest metropolis into a city that will lead the way in the field of public transportation in Israel, to restore the city's urban space to its residents, and to enable them to benefit from an advanced, accessible, reliable, readily-available and safe light rail network.

Jerusalem 2028: 40% of Residents Choose to Use the Public Transportation Network Every Day

The objective of the Jerusalem Transportation Master Plan Team is to transform the Light Rail Network (LRT) in Jerusalem into the main mode of transportation for approximately 40% of the city's residents and visitors.

Currently, approximately 15% of private vehicle owners living along the route of the Red Line choose to use the light rail for their daily commute. This fact only serves to strengthen the feasibility of the Jerusalem Transportation Master Plan's objective.

The Urban Space: Safe, Accessible and Fair

The development of the network is based on the Principle of Walkability. When completed, more than 650 thousand Jerusalem residents will benefit from a light rail station located approximately only 500 meters from their home, workplace, place of study, and cultural centers.

As part of the work on the network, extensive infrastructure and development work is being done in order to restore the urban space to all city residents, thereby contributing to their mobility and to the promotion of an equitable and inclusive transportation system for the city.

The Light Rail Network in Jerusalem: 650 Thousand Passenger Trips per day

Once completed, the Jerusalem light rail network will include 8 service lines which will traverse the city in all directions:

Presently, **the Red Line,** Israel's first light rail line, provides a convenient and fast solution for more than 170 thousand passengers a day who seek to travel within the city. When fully developed, the Red Line will stretch from the Hadassah Ein Karem Medical Center in the south to the Neve Yaakov neighborhood in the north, passing via Herzl Boulevard, Jaffa Road, the city center, and the French Hill neighborhood.

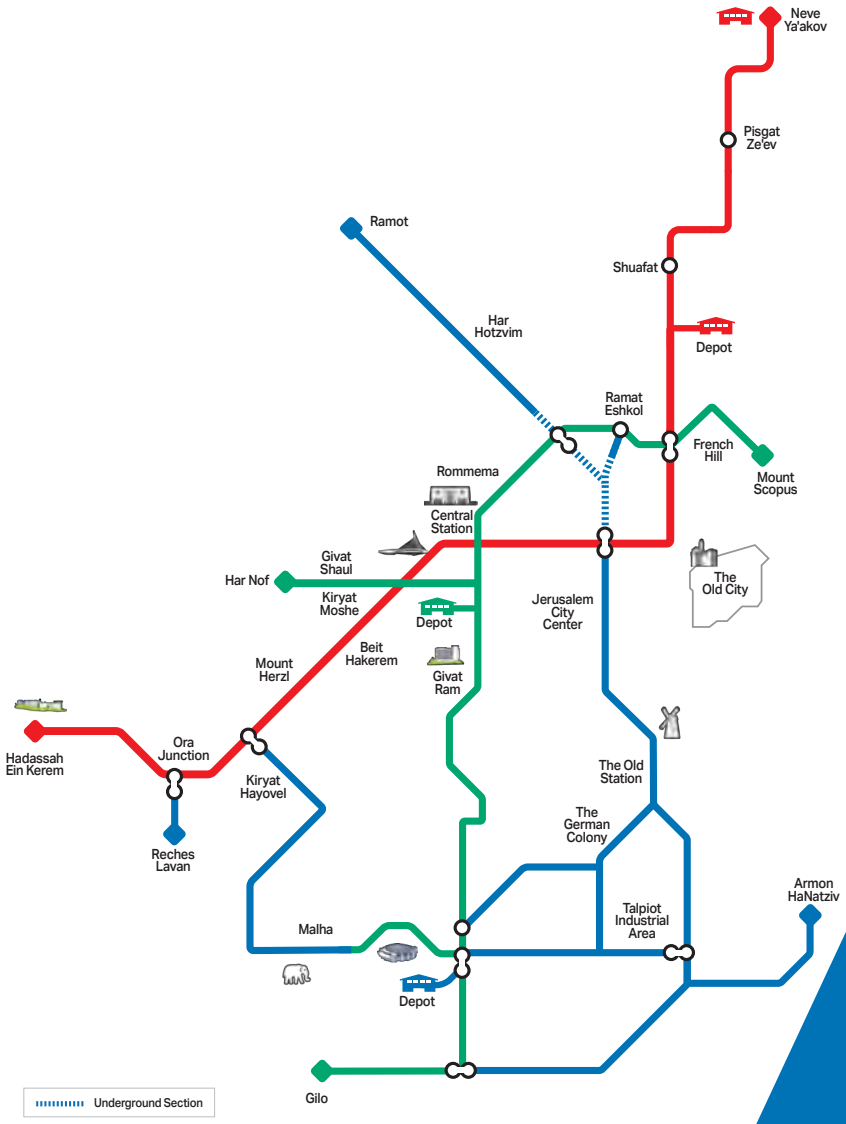
The network's second phase, **the J-NET** including the Green Line, which is currently under construction, will transform the single service line of the Red Line into a network of 5 service lines and will connect the two campuses of Hebrew University, the large centers of employment in Talpiot, the city's largest neighborhoods and the main cultural attractions in Malha: the sports stadiums, zoo and shopping mall.

Once operational, this network will provide service to an additional 250 thousand passengers per day, and will connect the inter-city commuter train to the Jerusalem light rail network.

The Blue Line: Third and Most Congested Line

The network third phase includes the addition of the Blue Line. Once operational, this phase will complete the backbone of the Jerusalem LRT network and provide a complete, reliable, readily-available, environment-friendly and safe transportation solution for more than 650 thousand people per day.

The Jerusalem LRT Network



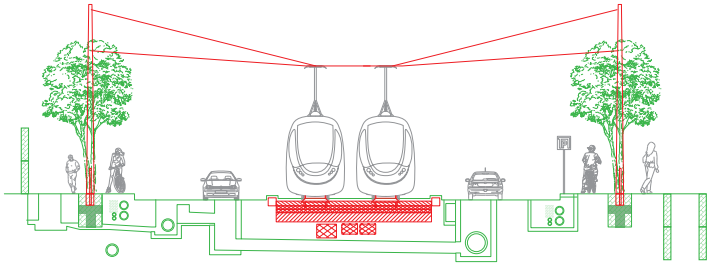
Jerusalem Network Facts & Figures

	Red Corridor	Green Corridor	Blue Corridor
Track Length (km)	21.5	20	31 (2.5 underground)
Number of Stations	36	41	53 (3 Underground)
Number of Rectifier Rooms	17	19	13
Number of Junctions	84	89	68
Depot & Stabling	**French Hill Depot:** Capacity – 71 vehicles **Neve Yaakov Stabling:** Capacity – 24 vehicles **Network:** Secondary OCC	**Lot 25 Depot:** Capacity – 50 vehicles **Network:** Primary OCC	**Malha depot:** Capacity- 122 vehicles **Blue Line** Secondary OCC
Rolling Stock	• 100% low floor vehicles • Complex traction package for enabling ascent on 9% slopes • Doors on double-sided vehicles • Bi directional vehicles		

Procurement Strategy

As part of the lessons learned from the execution of the Red Line and the J-NET projects, JTMT has developed a unique procurement strategy which optimizes the risk allocation between the private and public sectors, emphasizing the advantages and core capabilities of each sector.

This procurement strategy has been adopted by the Government of Israel within most of its mass transportation projects and was part of the Government of Israel Decision No. 1838 from August 11th 2016.



Owner	Contractor / Project Company
The owner of the project is responsible for the Infra #1 works as graphically depicted in green in the diagram above of a typical cross-section.	**The contractor/project company** shall execute Infra#2 works based on the owner's design, as graphically depicted in red in the diagram above of a typical cross-section.

Henrietta Szold St. at the end of Infra 1 works

The works are going full steam ahead!

After completing a successful tender process for the J-Net and promoting almost all of Infra 1 works on the J-Net alignment the State of Israel has announced its intention of publishing the Blue Line tender documents.

The Blue Line tender will follow a PPP scheme, similar to that of the J-Net, with the aim of optimising the advantages of each stakeholder.

All Blue Line vehicles will be stabled and maintained at a dedicated depot and stabling facilities which will be constructed by the Blue Line Project Company.

Blue Line Infra 1 works are already underway, emphasizing the importance of this project to Jerusalem residents.

Tunneling works at Asher Viner St. are in progress

The Blue Line: On the Way to a New Transportation Reality in Jerusalem

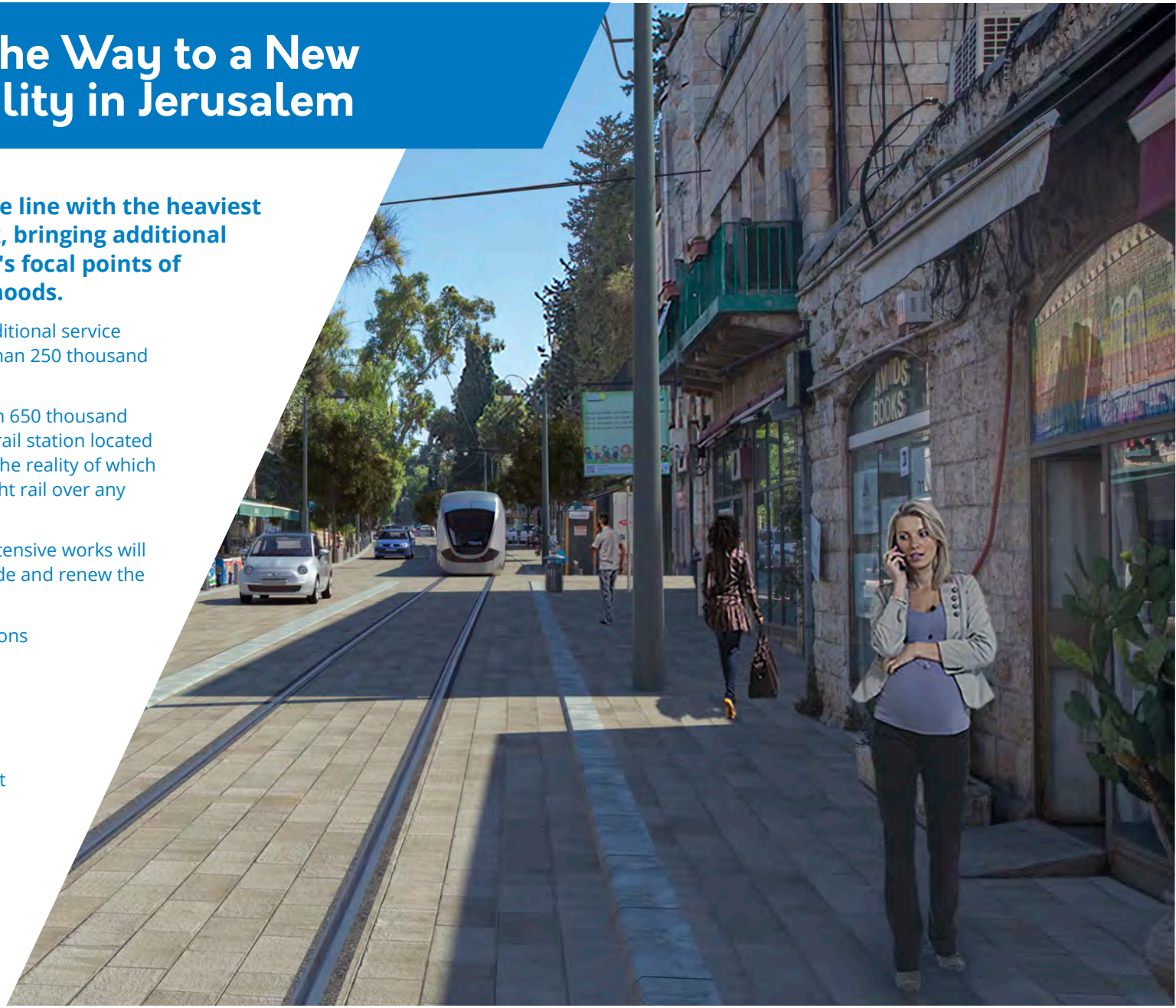
The Blue Line is predicted to be the line with the heaviest demand in the Jerusalem network, bringing additional passengers closer to all of the city's focal points of interest and residential neighborhoods.

Once completed, the Blue Line will add 3 additional service lines to the existing network, serving more than 250 thousand additional passengers a day.

Upon completion of the Blue Line, more than 650 thousand Jerusalem residents will benefit from a light rail station located no more than 500 meters from their home, the reality of which is expected to encourage them to use the light rail over any other form of private transportation.

As part of the work on the light rail route, extensive works will be undertaken by the public sector to upgrade and renew the city's infrastructure, including:

- Electricity, water, sewage and communications
- City streets
- Lighting
- The city's appearance
- Gardening and environmental development



The Blue Line Characteristics

The Blue Line will include about 31 km of new tracks of which about 2.5 km will form part of an underground section with 3 stations.

The Blue Line will include a depot at Malha which will serve as the main stabling facility for the 122 Blue Line vehicles and will include an OCC which will serve as a backup OCC for the Blue Line.

The Blue line will be conected to the main network OCC at the Lot 25 Depot.

The Blue Line will include 3 main service lines:

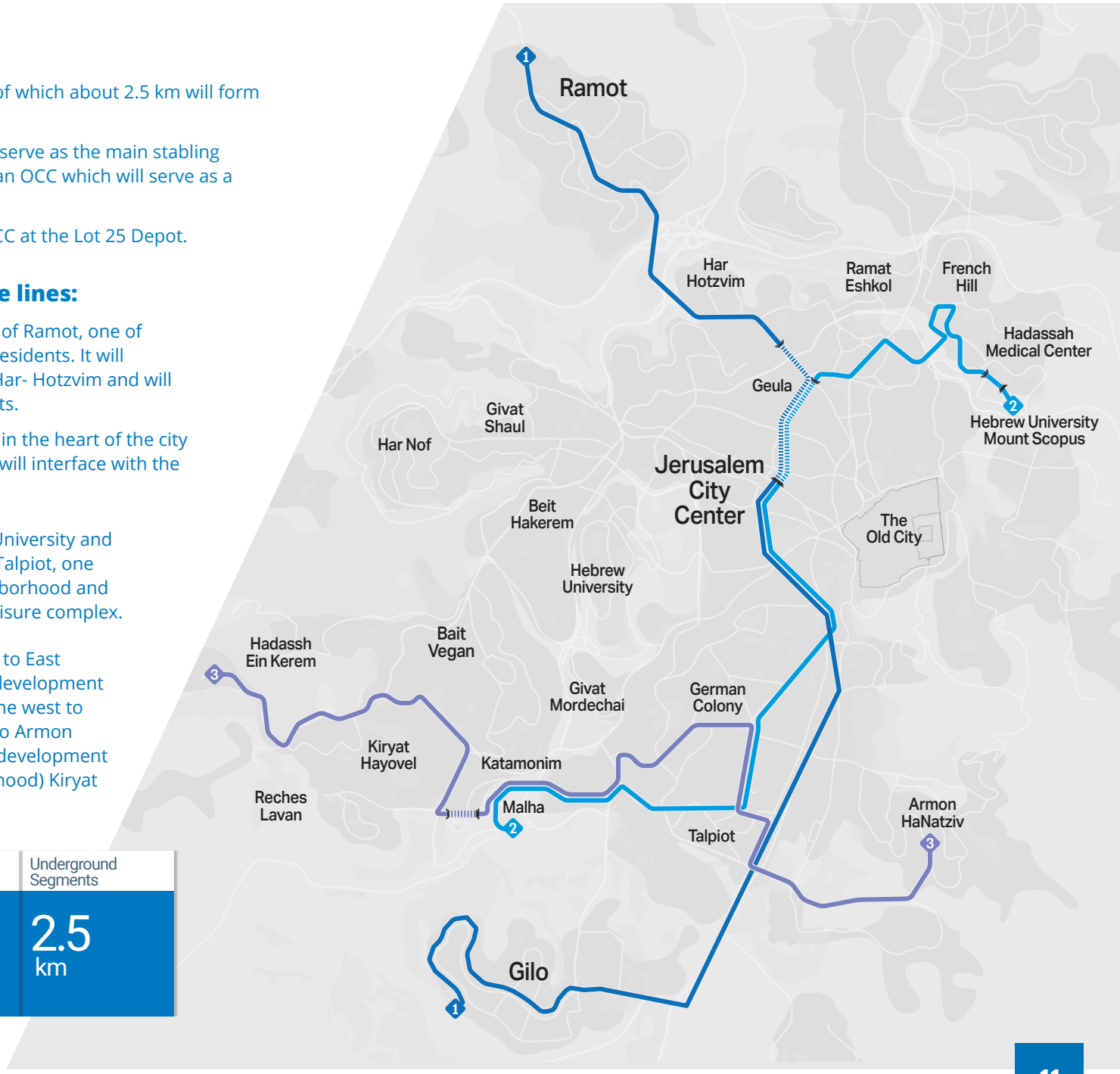
The first service line will begin at the northern end of Ramot, one of Jerusalem's largest neighborhoods with over 50,000 residents. It will continue to the major high tech and industry hub in Har- Hotzvim and will end at Gilo, a neighborhood with over 32,000 residents.

The route will include a 2 km of underground section in the heart of the city which will include 3 underground stations and which will interface with the existing Red Line at King George junction.

The second service line will run from the Hebrew University and Hadassah medical center at Mount Scopus, through Talpiot, one of the biggest industrial zones, the Katamonim neighborhood and Emek Refaim, and will end at the Malha sports and leisure complex.

The third service line will run from West Jerusalem to East Jerusalem passing through some of the main urban development areas - from Hadassah Ein Kerem medical center in the west to Talpiot in the east with an option to extend the line to Armon HaNatziv (East Talpiot) passing through main urban development areas in thecity such as Reches Lavan (new neighborhood) Kiryat Hayovel (via a 500 meter tunnel), Malha and Talpiyot.

Length	Passengers per day	Number of Stations	Underground Segments
31 km	250 thousand	53 Including 3 underground stations	2.5 km



Malha Depot

The Malha Depot is a two-level stabling and maintenance complex for LRT vehicles with a regular-operation capacity of about 61 trains (122 vehicles).

The complex includes LRT vehicles washing facilities and an inspection building, sand silos and filling facilities, stabling tracks, maintenance facilities and workshops, wheel lathe, spare parts storage, HVAC and electrification systems, a DCC and backup OCC for the Blue Line.

The Depot Statutory Plan (TABA) covers an area of approx. 73,000 sq.m. in total. The larger upper level (deck) of the Depot structure itself (which partially extends over existing live Israel Railways heavy-rail tracks) covers an area of approx. 39,000 sq.m., while the lower level covers an area of approx. 27,000 sq.m.

In addition, there are two 3-storey buildings above the upper level with mainly office and maintenance functions, with a total floor area of approx. 9,000 sq.m., as well as other ancillary buildings.

The underground section of the Blue Line

The section of the Blue Line in the City Center segment is characterized by principal urban streets that form the backbone of the public space in the city center. Activities along the streets are plentiful with very intensive pedestrian traffic. There is a mix of commercial, business, residential, public and religious institutional uses along the entire alignment.

This section of the Blue Line is characterised by with narrow streets, limited rights of way, high gradients, sharp turns, and crossings of both the Green Line and the existing Red Line. In order to avoid these constraints, it was determined that part of the alignment would consist of an underground section.

The underground alignment includes a 2km stretch of tunnel (between Jaffa Rd. and Bar Ilan St.) with 3 underground stations. This underground section is planned to end with a portal just north of the Red Line on Jaffa Road. The crossing of the Red Line on Jaffa road is planned to be at-grade.

About the Blue Line Tender

The Blue Line tender, and all criteria for participation in the Blue Line tender, will be published at a later stage.

The anticipated stages of the tender process are as follows:

- **Issuing of the PQ - first half of 2020**
- **Announcement of shortlist of qualified bidders - first half of 2021**
- **Issuing of the RFP - first half of 2021**
- **Selection of winning bidder and execution of the Agreement – first half of 2022**
- **Issuing of NTP - 2023**

Jerusalem LRT Network
8 Operational Lines

- 1 Neve Yaacov - Hadassah Ein Karem
- 2 Central Bus Station - Reches Lavan
- 3 Neve Ya'akov - Har Nof
- 4 Givat Hatachmoshet - Malha
- 5 Mount Scopus - Gilo
- 6 Mount Scopus - Malha
- 7 Ramot - Gilo
- 8 Hadassah Ein Kerem - Talpiot/ Armon HaNatziv

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