



# LINE 4<sub>A</sub>

VOLUME 12

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MINISTRY OF  
INFRASTRUCTURE  
AND TRANSPORT



## PROJECT: PRELIMINARY WORKS



MINISTRY OF  
INFRASTRUCTURE AND  
TRANSPORT



WITH CO-FINANCING OF GREECE AND THE EUROPEAN UNION

KESSARIANI Station

## RELOCATION OF NETWORKS

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Network relocation works in GALATSI Station.

In ALSOS VEIKOU Station, the works for the diversion of networks have commenced, while in GALATSI Station the works for the diversion of the natural gas, DEDDIE and EYDAP networks continue.

Moreover, in DIKASTIRIA Station, the works for the diversion of DEDDIE MV network are in progress and the works for the diversion of EYDAP network  $\Phi 1300$  pipes have been completed.

In AKADIMIA Station, the works for the diversion of DEDDIE and sewage networks continue.

At the same time, in KOLONAKI Station, works for the diversion of PUOs have been completed, while in the area of Formionos Shaft the network diversion works commenced in April.

## ARCHAEOLOGICAL WORKS

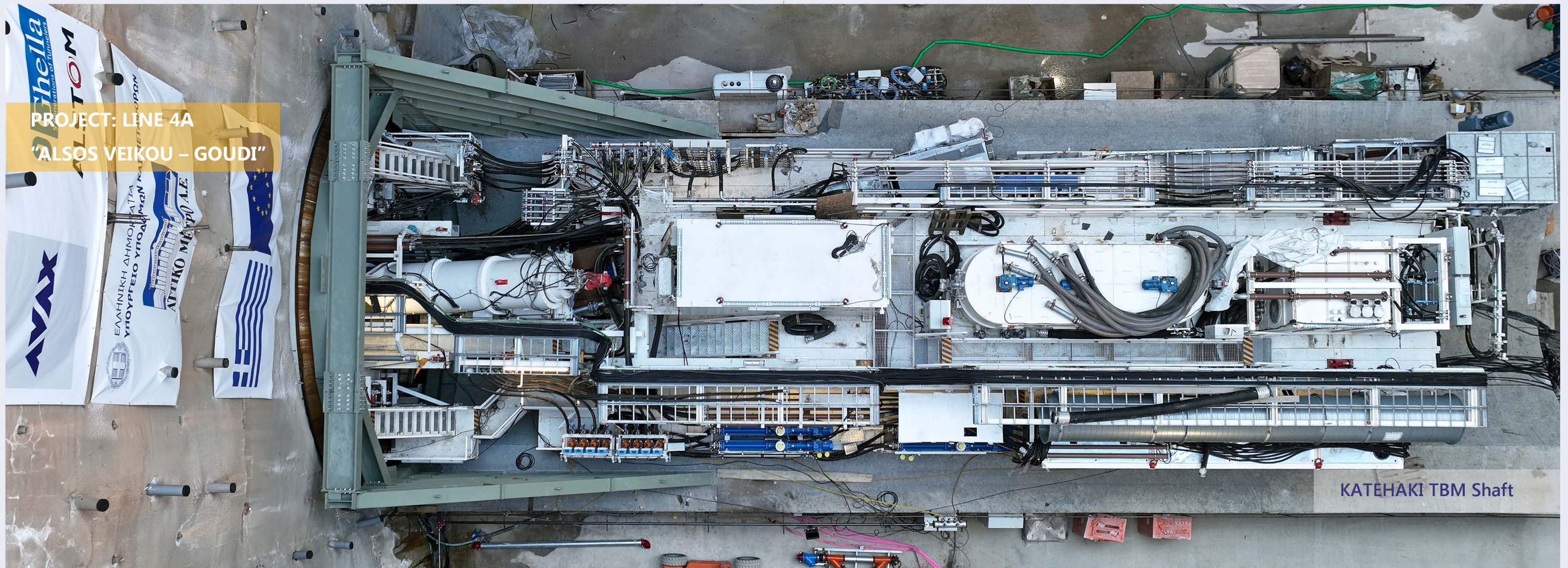
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Archaeological works through investigation trenches continue in ELIKONOS, EXARCHIA, KOLONAKI, KESSARIANI, ZOGRAFOU and PANEPISTIMIOUPOLI Stations and they have been completed in VIVLIOTHIKI Shaft, where an ancient Roman duct has been uncovered.



Archaeological works at the south shaft/south entrance of AKADEMIA Station.



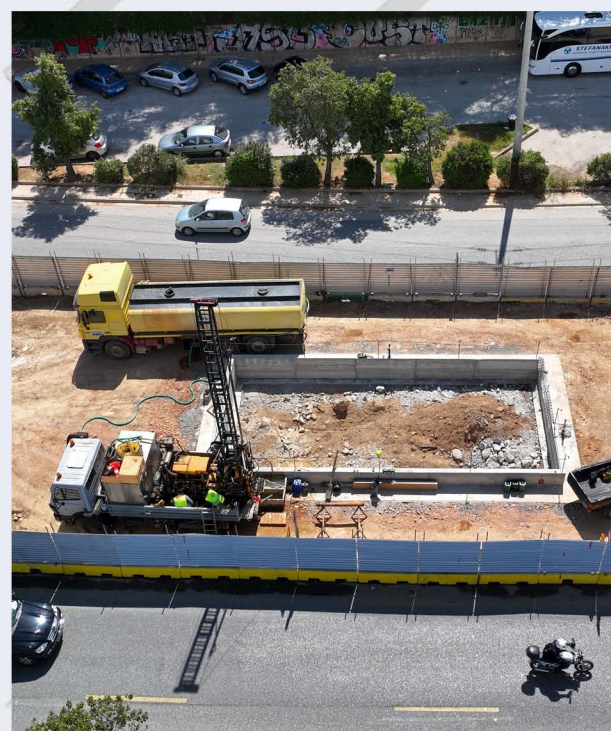


PROJECT: LINE 4A  
"ALSOS VEIKOU – GOUDI"

KATEHAKI TBM Shaft

## VEIKOU TBM SHAFT & EYDAP SHAFT

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Installation of inclinometer at EYDAP shaft.

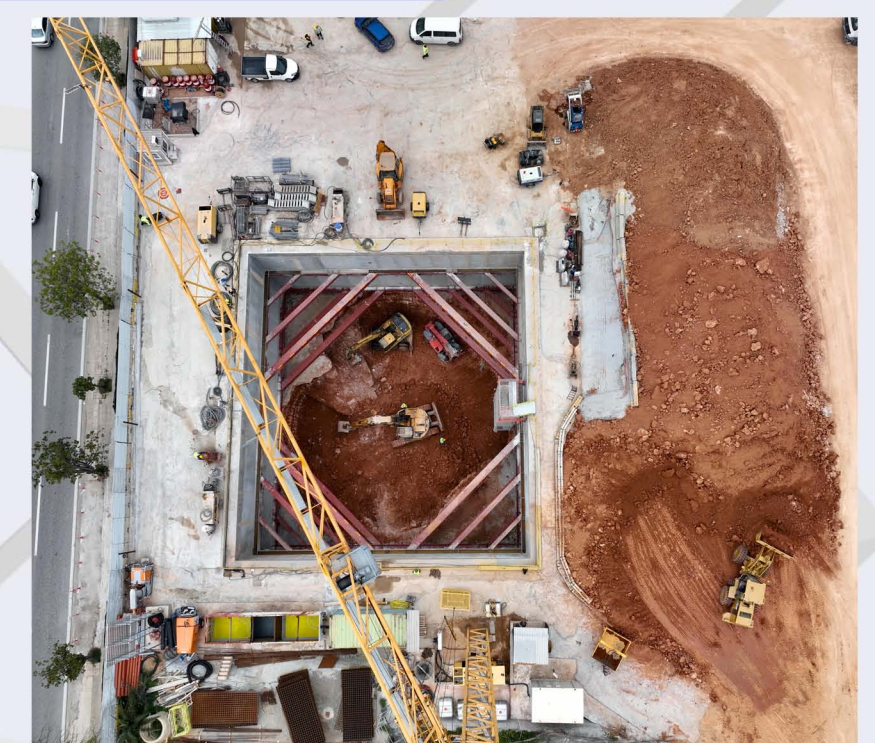
At Veikou TBM Shaft, the piles have been completed and the excavation of the 2nd level of the trench on the south side between piles Π44-Π93-Π100-Π152 is in progress.

At the same time, the 2nd level anchors are being constructed at piles Π109, Π110 and Π111. The total of the constructed piles of the 2nd row on the south side (TBM side) is 28/105.

The worksite for the construction of EYDAP shaft on Veikou Avenue has been configured. In March, the construction of piles was completed, while the installation of Geomechanical and Structural Monitoring instruments has already commenced.

## GNA SHAFT

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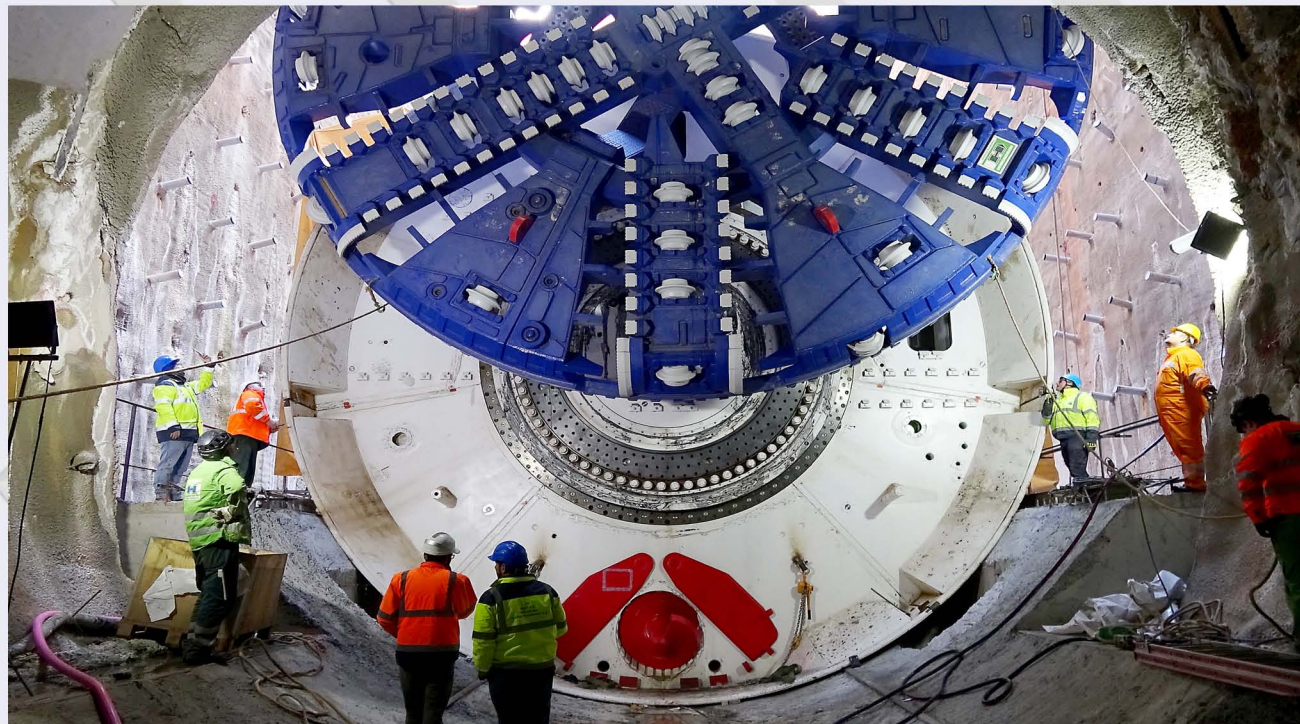


Excavation works in progress at GNA shaft.

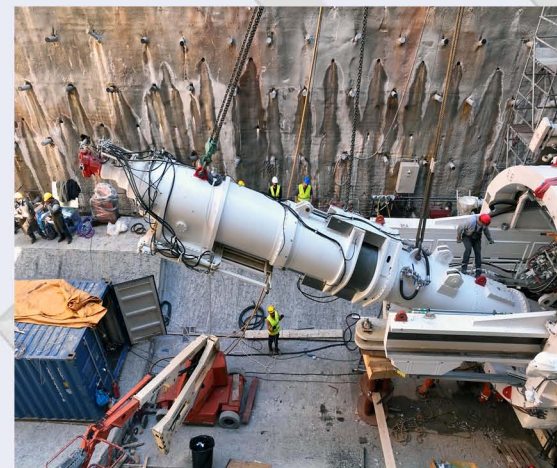
In GNA Shaft, the excavation of the 3rd level of the shaft using hydraulic hammer has been completed. The excavation percentage of the shaft now reaches 41%.

Moreover, steel struts have been installed at the 2nd excavation level, while drilling works and works for the installation of support measured for the 3rd excavation level are executed.

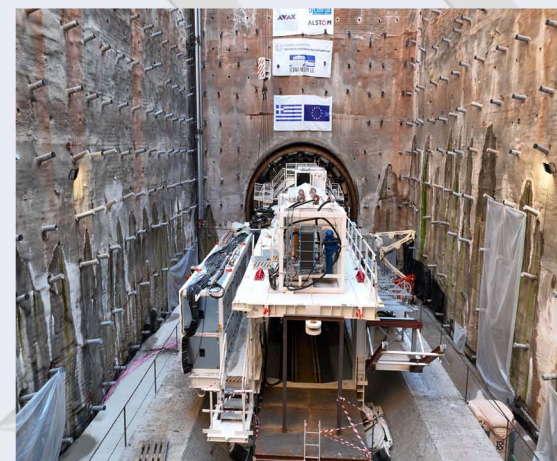




Lowering of TBM cutterhead.



Installation of bolt.



Assembly of TBM's backup system.

The construction of the TBM bed, intended for the smooth launching and assembly of the machine, has been completed.

Moreover, the lowering of the TBM cutter head was carried out on 29.03.23, while the 1st gantry for the TBM support arrived at the worksite.

At the same time, the lowering of the tail shield has been completed, the installation of motors at the main bearing has been completed and the wastewater management plant has been assembled.

In April, a total of nine special precast segments of the station invert arrived and various parts of the TBM machine were assembled at the shaft's invert. The assembly of the 1st supporting section (gantry) has been completed, while the assembly of the 2nd part from the surface of the shaft has commenced.

Moreover, 2 rings have been installed for the station invert at the bed of the trench, while the part of the TBM conveyor belt has arrived at the worksite.

At the end of April, the installation of the TBM starter frame before the NATM tunnel has been completed.

On 27.04.23, the Prime Minister, Kyriakos Mitsotakis visited Katehaki TBM Shaft worksite of the Athens Metro New Line 4, Section A: "Alsos Veikou – Goudi", where he was given a tour by the Chairman of ATTIKO METRO S.A. Nikolaos Tachiaos and the CEO and Vice Chairman of ELLINIKO METRO S.A. Nikolaos Kouretas.



Name-giving ceremony of one of the two tunnel boring machines (TBM) of the new Line 4, Section A.



Visit of the Prime Minister to Katehaki TBM Shaft.

Prime Minister Kyriakos Mitsotakis was informed on the progress of the Project and attended the name-giving ceremony of one of the two tunnel boring machines (TBM) of the new Line 4, Section A.

According to the ordinary procedure for the construction of tunnels, a TBM starts its drive under the city after the completion of its name-giving ceremony, as is the case with the ship launching procedure.

Thus, the first TBM was named "Athena" in order to honor the mythological protector of the city, signifying at the same time the revisiting of ATTIKO METRO S.A.'s works in the center of the city of Athens.

The goddess of Athena carries a shield, just like the TBM. The shield constitutes the part of the machine that retains the loads of the overlaying ground layers during the advance of the TBM for the tunnel to be bored!



# ATTIKO METRO S.A.



## LINE

### A LANDMARK PROJECT BECAMES REAL!

[www.ametro.gr/grammi4](http://www.ametro.gr/grammi4)

#### NEWSLETTER LINE 4A

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*\*All used photos are taken from the archives of ATTIKO METRO S.A. (unless stated otherwise).*

*\*\*Cover page photo: lowering of TBM cutter head at Katehaki TBM Shaft.*

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