



LINE 4_A

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MINISTRY OF
INFRASTRUCTURE
AND TRANSPORT

PROJECT: LINE 4A "ALSOS VEIKOU – GOUDI"



TBM "NIKI"

VEIKOU TBM SHAFT - TBM "NIKI"

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VEIKOU TBM Shaft.

As of now, the completion percentage of the construction works at VEIKOU TBM Shaft, which includes excavation works, temporary retaining structures, and drainage, has reached 81.72%. Additionally, a tower crane has been successfully installed for the transportation of loads and precast rings.

The Tunnel Boring Machine (TBM) "NIKI" has commenced its operation, having bored a total of 403.05m out of 472.54m for the first interstation between Veikou TBM Shaft and Alsos Veikou Station. This segment of the project is now 85.29% complete.

Furthermore, the progress of the boring works from Veikou TBM Shaft to the Evangelismos Trumpet Shaft, where TBM "NIKI" will conclude its journey, has reached 5.69% (403.05m/7074.33m).

EYDAP SHAFT

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Excavation of the 5th level - EYDAP Shaft.

The excavation works for the EYDAP Shaft are ongoing, with construction currently advancing at a progress rate of 70.11%. At the 5th level, a hydraulic hammer is being utilized to facilitate the excavation process.

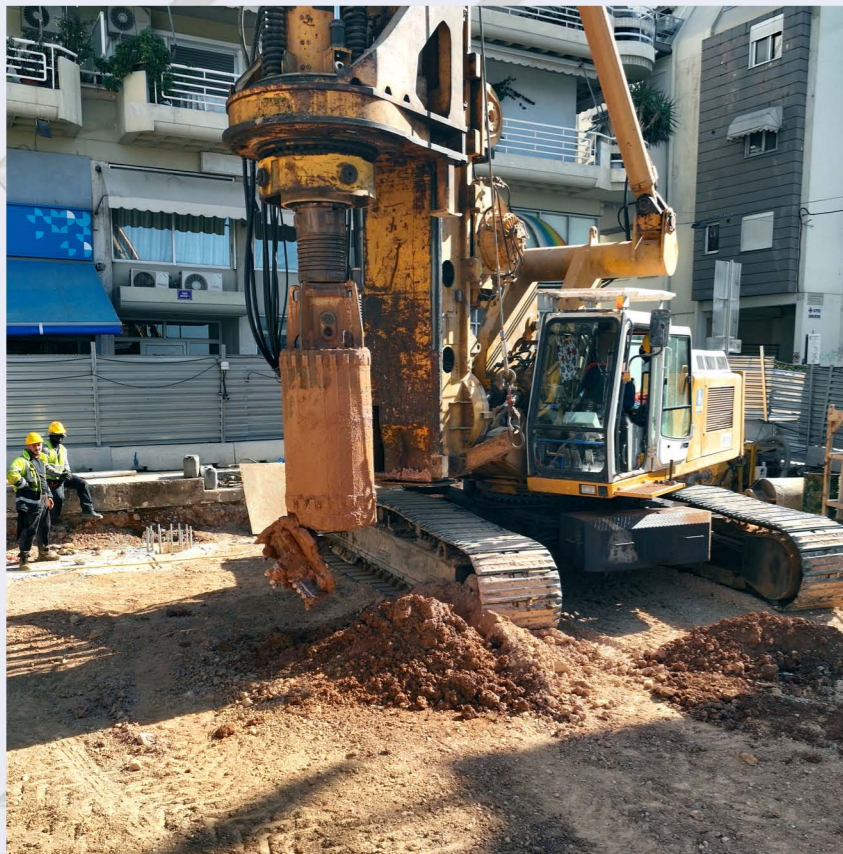


VEIKOU TBM Shaft

ALSOS VEIKOU STATION

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ALSOS VEIKOU Station is strategically located at the junction of Omorfoklisias Avenue and Tralleon Street in the Municipality of Galatsi. Following the completion of preliminary works and the successful arrival of the boring machine and lifting crane, piling works commenced promptly. Currently, all 36 piles have been successfully constructed at the western entrance of the station. Additionally, work on the central trench is progressing, with 4 out of the 67 piles completed thus far.

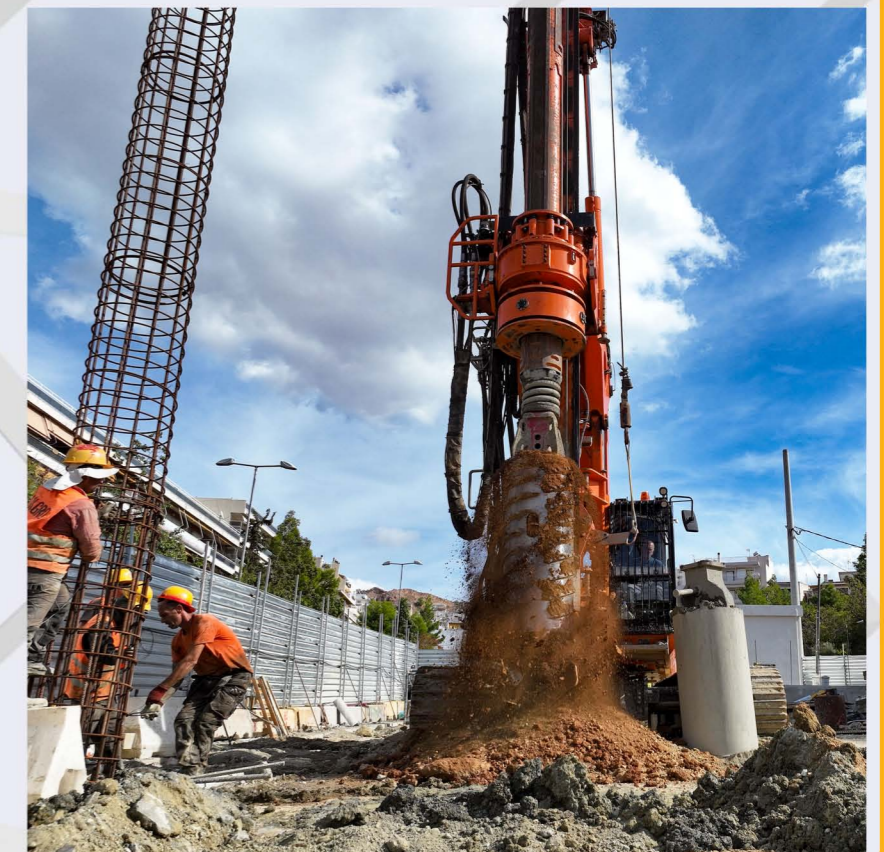


Construction of piles - ALSOS VEIKOU Station.

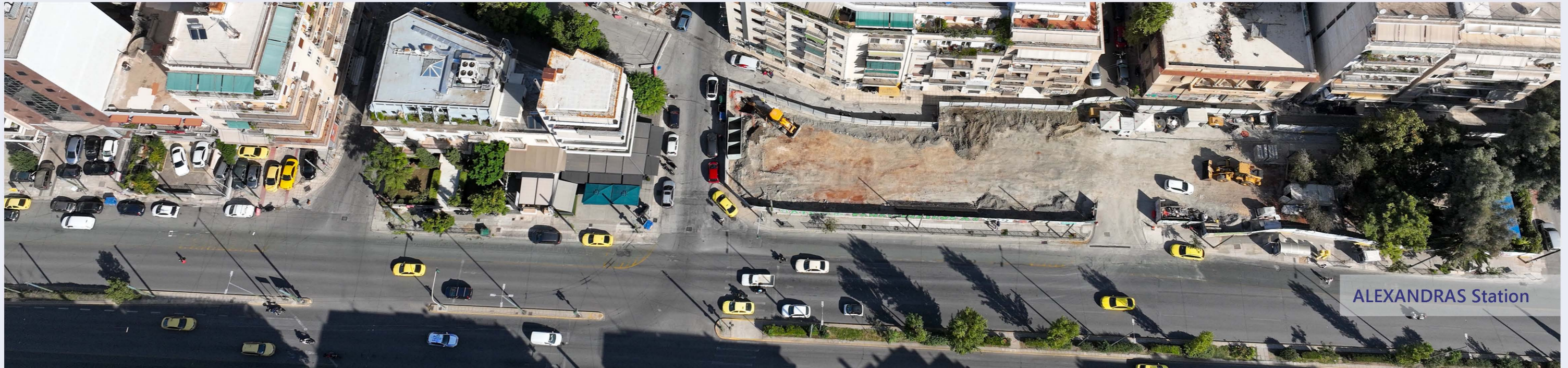
GALATSI STATION

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The construction of the 79 piles at the central trench of GALATSI Station has been successfully completed. Additionally, at the south ventilation shaft, 9 out of the 40 piles have been constructed to date. In addition, the progress of the pile cap beam construction works in the main trench has reached 68% (84m/123m).



Construction of piles - GALATSI Station.



ALEXANDRAS Station

ELIKONOS STATION

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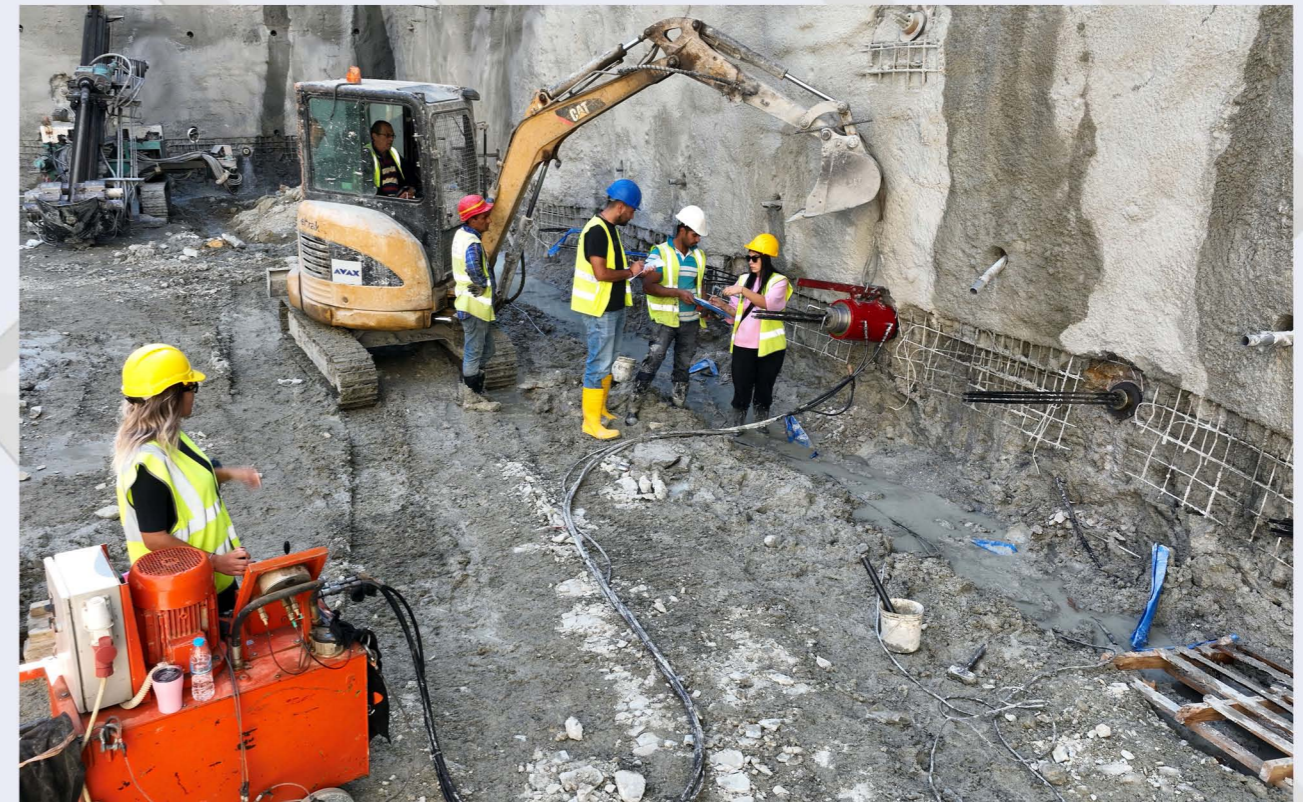


Arrival of drilling machine - ELIKONOS Station.

ELIKONOS Station is situated at the junction of Glykerias and Parnithos Streets, adjacent to the hill of the same name. In October, the pile drilling machine was successfully assembled, and earthworks for the configuration of the station floor commenced immediately thereafter.

DIKASTIRIA STATION

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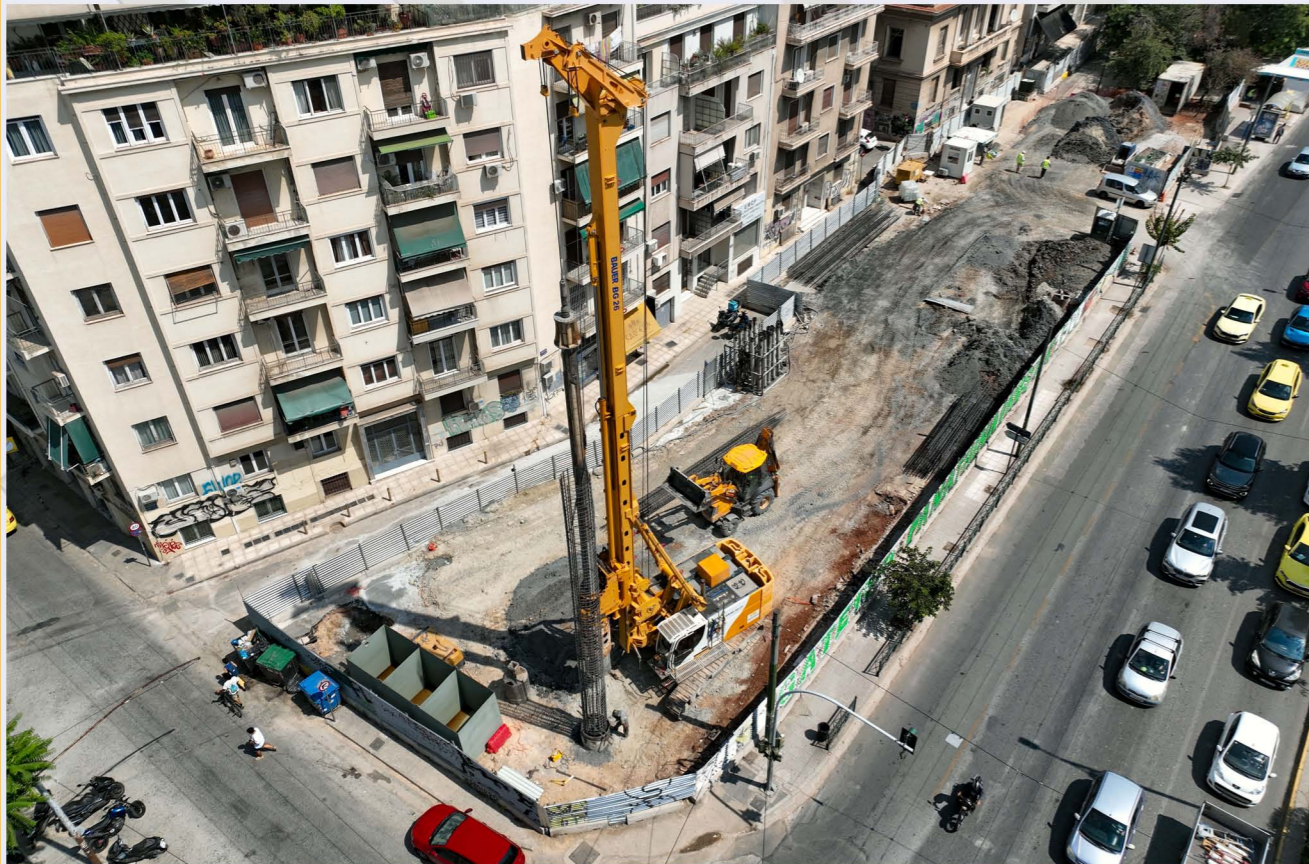


Anchor tensioning procedure - DIKASTIRIA Station.

The excavation of the central trench at DIKASTIRIA Station has reached 76% completion. Concurrently, the gradual construction and boring of anchors up to the 11th level are ongoing. The forepoling beams at the north and south front for the construction of the NATM tunnel have been successfully completed. The completion percentage of the glass nails at the south front reaches 30.5% (55/181) and at the north front 30.4% (59/194).

ALEXANDRAS STATION

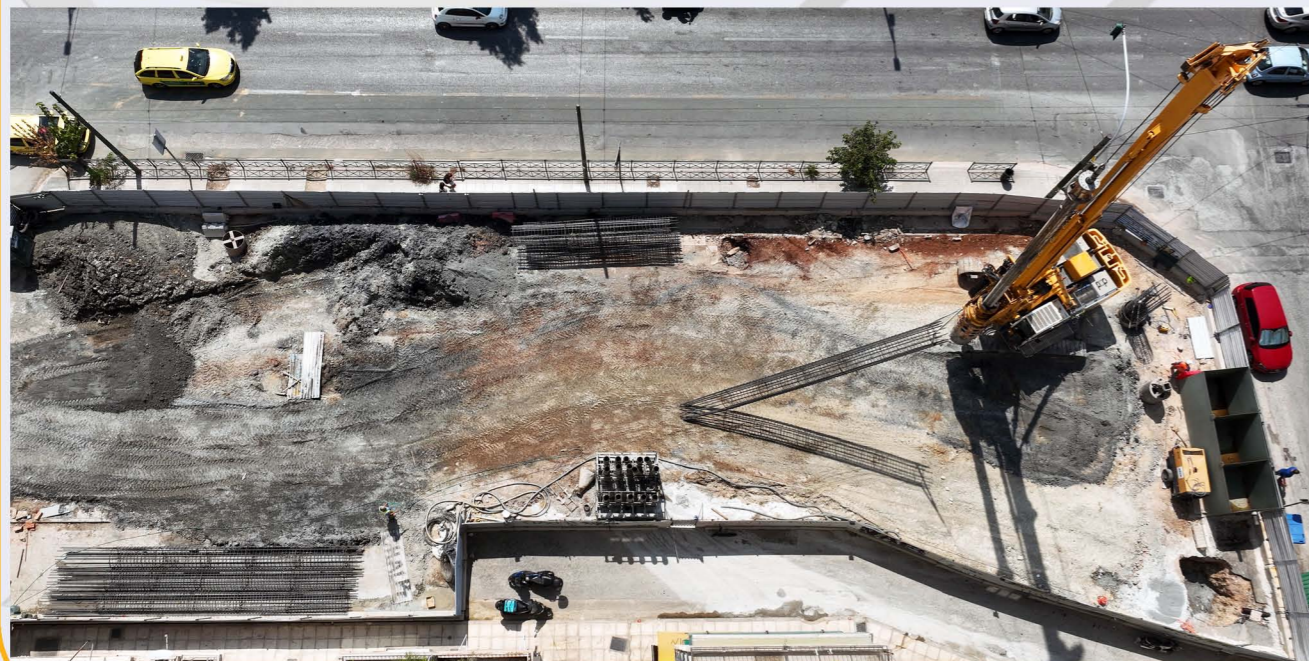
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Construction of piles - ALEXANDRAS Station.

ALEXANDRAS Station is located at the junction of Alexandras Avenue and Moustoxydi Street. The construction process for the piles in the available worksite area commenced promptly, with 53 out of the 80 piles successfully completed.

The construction of the remaining piles will continue following the implementation of the necessary traffic arrangements to ensure safe and efficient operations.



Construction of piles - ALEXANDRAS Station.

AKADIMIA STATION

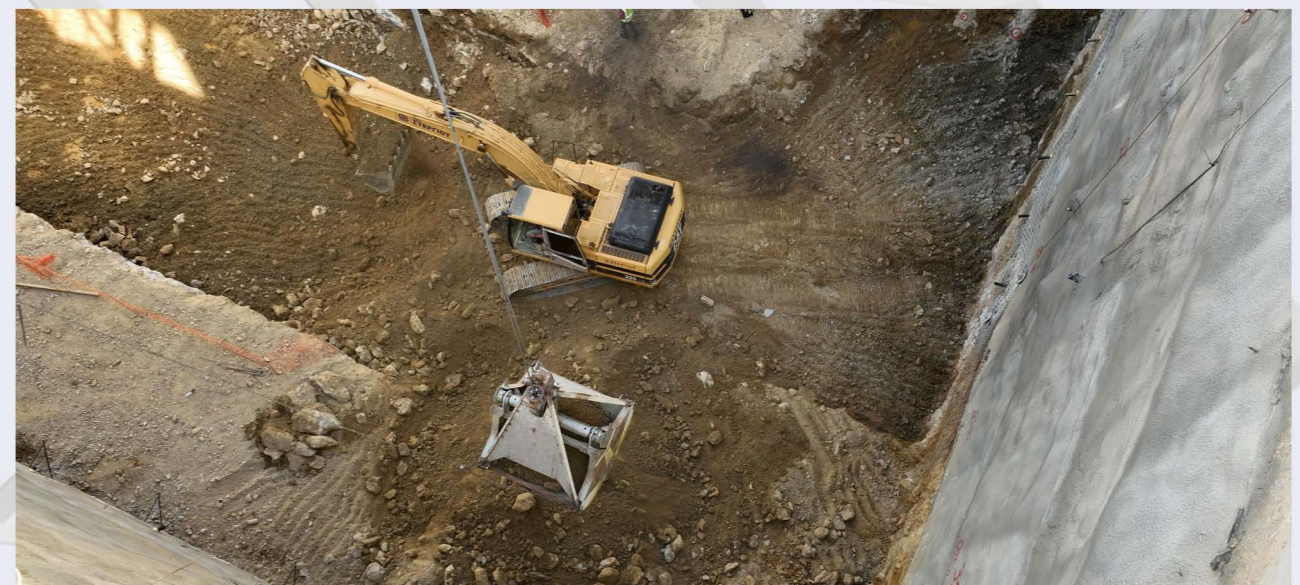
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AKADIMIA Station.

At AKADIMIA Station, excavation of the 7th level of the central trench is currently in progress. The overall completion percentage of the excavation works at the central trench has reached 66%.

Additionally, the tensioning work for the pre-stressed anchors in the central trench has shown significant progress, with a completion percentage of 80.89%. This translates to 275 out of 340 anchors successfully completed.



Excavation works - AKADIMIA Station.

VIVLIOTHIKI SHAFT

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Construction of piles – VIVLIOTHIKI Shaft.

At the Vivliothiki Shaft, which is located adjacent to AKADIMIA Station, all 46 piles have been successfully completed. Following this achievement, work has commenced on the construction of the pile cap beam.

KOLONAKI STATION

At KOLONAKI Station, the excavation percentage of the central trench has reached 82%, with excavation works currently in progress at the 8th level. Additionally, the completion percentage for the tensioning of the pre-stressed anchors in the central trench stands at 68.49%.



KOLONAKI Station.

EVANGELISMOS TRUMPET SHAFT

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At the Evangelismos Trumpet Shaft, 74 piles have been completed, and the construction of the pile cap beam is currently underway, with a completion percentage of 91.8%. In addition, the bust of Nansen has been transported to the park located opposite the embassy of Norway, following a recommendation from the Municipality of Athens.



Drilling of piles – EVANGELISMOS TRUMPET Shaft.



Construction of piles – EVANGELISMOS TRUMPET Shaft.

KESSARIANI STATION

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Removal of excavation spoils – KESSARIANI Station.

KESSARIANI Station is situated at the intersection of Ethnikis Antistaseos Avenue and Ymittou Street. Following the completion of the preliminary works, the pile construction procedure has now commenced. As of today, 2 out of 146 piles have been constructed.

ILISSIA STATION

ILISSIA Station is located at Indou Street, near Aornou and Kyprou Squares. Following the completion of the preliminary works, the elevations in the station construction area have been configured. Additionally, work on the installation of signage has been executed to support the implementation of the traffic study during the construction phase. Furthermore, a drilling machine has been assembled on-site, and the construction of piles has begun. As of today, 5 out of 73 piles have been completed.



Drilling of piles – ILISSIA Station.

GNA SHAFT

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Work is currently underway on the excavation of Phase A for the first section of the Forestation Tunnel. The progress details are as follows:
Phase A1: 51.60% completion (96m out of 186.02m)
Phase A2: 41.39% completion (77m out of 186.02m).
It is important to note that the Forestation Tunnel serves as an auxiliary gallery designed for maintenance purposes and train stabling.



Forestation tunnel – GNA Shaft.

TBM "ATHENA"



TBM "ATHENA" - Steering chamber.

The TBM "ATHENA" has successfully bored 442.62m out of a total of 599.08m for the 3rd Interstation (between GOUDI Station and ZOGRAFOU Station), achieving a progress rate of 73.88%.

Additionally, the TBM's cutter-head and screw have been inspected under atmospheric conditions, and after completing necessary maintenance works, excavation activities have resumed.

Furthermore, the overall progress of the boring works from Katehaki Shaft to EVANGELISMOS Trumpet Shaft, where the TBM will eventually stop, is currently at 38.50%.

PROJECT: PRELIMINARY WORKS



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RELOCATION OF NETWORKS

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Demolition of building – ZOGRAFOU Station.

AKADIMIA Station: Work is currently underway in the area of the skylights on Patriarchou Grigoriou E' Street, focusing on the diversion of the natural gas network.

EXARCHIA Station: Concurrently, works are being executed for the diversion of the EYDAP network.

ZOGRAFOU Station: The final building is in the process of being demolished to facilitate the completion of preliminary works.

ARCHAEOLOGICAL WORKS

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Archaeological works - EXARCHIA Station.

Archaeological works in KYPSELI, EXARCHIA, PANEPISTIMIOUPOLI and ZOGRAFOU Stations and in Aghios Therapontas ventilation shaft are in progress. These activities are essential for ensuring the preservation of historical artifacts and structures as construction continues.

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PHOTOS OF LINE 4A PROJECT

Savvas Spyridonos

**All photos used have been taken from the archives of ELLINIKO METRO S.A. (unless stated otherwise).*

***Cover page photo: EVANGELISMOS TRUMPET Shaft*

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