



**“ARCHAEOLOGICAL WORKS AND PUBLIC UTILITY
ORGANIZATIONS NETWORK RELOCATIONS – ATHENS
METRO LINE 4, SECTION A’ ALSOS VEIKOU GOUDI”**

**RFP-322/17
(Α.Σ. 66925)**

TECHNICAL DESCRIPTION

TECHNICAL DESCRIPTION

TECHNICAL DESCRIPTION

TABLE OF CONTENTS

- 1. Introduction**
- 2. Description of the Project’s Locations**
- 3. Scope of the Project**
 - 3.1. General
 - 3.2. Inventory of Existing Features
 - 3.3. Topographical Surveys and Works
 - 3.4. Issuance of every type of permits
 - 3.5. Archaeological Works
 - 3.6. PUO Networks diversions
 - 3.7. Traffic Diversions
 - 3.8. Works for the retaining of the trenches’ slopes
 - 3.9. Worksite Areas
 - 3.10. Environmental Issues
 - 3.11. Project Log
- 4. ANNEX A’ List of Drawings**

TECHNICAL DESCRIPTION

1 Introduction

In the framework of scheduling the development of the Metro Network in Athens, ATTIKO METRO S.A. (AM) has integrated into its program the design and construction of a new line, Line 4, which shall complement the three (3) existing Lines (Line 1 – former ISAP and Attiko Metro Lines 2 and 3).

At this phase and in view of implementing the Project pertaining to the Section A’ of Line 4 “Alsos Veikou – Goudi”, AM has already issued a notice concerning an International Tender (RFP-308/17) based on the restricted procedure and has invited economic operators to express their interest in the subject tendering process (Stage A’ – Pre-qualification); the economic operators, who will be selected at Stage A, will submit their Technical and Financial Offer at Stage B of the Tender for the appointment of the Contractor.

The subject Section A’ “Alsos Veikou – Goudi” shall be approximately 13km long and it shall accommodate 15 new stations along with their ventilation shafts, namely: Alsos Veikou, Galatsi, Elikonos, Kypseli, Dikastiria, Alexandras, Exarchia, Akadimia, Kolonaki, Evangelismos, Kessariani, Panepistimioupoli, Zografou, Ilissia, Goudi.

It shall include a new Operations Control Center (OCC) for Line 4, with the view to integrate the operations control of Lines 1, 2 and 3, and the future automated new lines of the Tramway network, as well as a new building for the maintenance and repair of the new train-sets, to be situated in an available area within Sepolia Depot.

Moreover, it shall include the two forestations of the line; one forestation shall be situated before Alsos Veikou Station (underneath Veikou Avenue) and the other one past Goudi Station (underneath Katehaki Avenue). They shall incorporate technical works with the appropriate arrangement of the crossovers/junctions for the stabling of the new trains, their washing and maintenance.

Nine (9) intershafts or terminal shafts shall be located along Section A’ of Line 4, namely: EYDAP, Veikou – Washing Plant – Maintenance, , Vivliothikis, Evangelismos Trumpet, Formionos, Near East, Dikaiosynis, TBM Katehaki, GNA Hospital.

The scope of this contract shall also include the execution of Archaeological Works and the Public Utility Organizations (PUO) Network Diversions required for the construction of the Project.

However, given that AM is entitled to assign part of the aforementioned works through a separate contract in view of reducing the delays in the construction of the features of the main project, it has decided to announce a Tender (RFP-322/17) to include the execution of works for the Public Utility Organizations (PUO) network relocations and the archaeological activities.

This document provides the Bidders with the technical description of the project concerning the execution of the Archaeological Works and the Public Utility Organizations (PUO) Network Diversions for the Athens Metro Line 4 Section A “Alsos Veikou – Goudi” (hereinafter referred to as “the Project”). The subject document includes the locations of the Project where these works will be executed, as well as the designs / studies and the activities required for its implementation.

Annex A of this Document includes the drawings list of the Project.

TECHNICAL DESCRIPTION

2. Description of the Project's Locations

The Archaeological Works and the PUO Network Diversions will be executed in the areas where the fifteen (15) stations, along with their ventilation shafts, and the nine (9) shafts (either intershafts or terminal ones) will be situated. The aforementioned structures are presented in the General Layout drawing.

More specifically:

The Archaeological Works shall be executed within the excavation outline of the open trenches of the aforementioned structures, as these are shown in the General Layout drawing, and, possibly, in the open trenches for the installation of the relocated PUO networks.

The scheduling and priority as concerns the project positions, from which the relevant works will commence and progress, shall be determined by AM, further to the communication with the Archaeological Departments concerned.

The diversions of the PUO networks include the relocation of those PUO networks passing within the excavation outline of the open trenches of the aforementioned structures, as shown on the Drawings of the Inventory of Existing PUO Networks.

The scheduling and priority as concerns the project positions, from which the relevant works will commence and progress, shall be determined by AM, further to the communication with the Public Utility Organizations concerned.

3. Scope of the Project

3.1. General

The scope of the Project shall include the preparation of all Designs required for the implementation of the Project, in line with AM's Design Specifications requirements (see relevant Document), as well as with the requirements of the PUOs concerned or of other Services concerned per scope of works (DOY/YPOME, etc.).

As concerns the works to be executed and the materials to be incorporated therein on a per case basis, the Contractor must apply the requirements of AM's Material and Workmanship Specifications (see relevant document), as well as with the requirements of the PUOs concerned or of other Services concerned per scope of works (DOY/YPOME, etc.).

In addition, the Contractor shall proceed to all necessary actions, at his care and expense, so that all required permits can be issued for and on behalf of AM, and the relevant approvals can be granted by third parties for the implementation of the Project.

The subsequent paragraphs of this document describe the individual scopes of the Project in more detail.

3.2. Inventory of Existing Features

Before the commencement of the construction works of the Works, the Contractor shall proceed to the detailed inventory of existing features in the areas to be occupied for the execution of the Works. In addition, further to AM's instruction, the Contractor shall be obliged to proceed with the inventory of existing features also in the areas of the open

TECHNICAL DESCRIPTION

trenches’ outlines for certain sections of works, which, even though not included in the worksite occupation areas at the current phase, as shown on the respective drawings, might be delivered by AM to the Contractor at a later stage.

The subject inventory shall be provided through drawings, descriptions, tables, quantities, photographs, etc., and shall include all existing features, such as trees, all PUO manholes, roads, islands, curbs (gutters’ elevations shall be recorded in pairs, so that the height of the curbs can derive from the subtraction of two elevations), all PUO poles, kiosks, bus stops, grade-separated passages, signaled intersection/junctions, benches, fountains, etc., as per the specifications of the document entitled Design Specifications. The aforementioned inventory is necessary, so that the existing features of the several areas of the Works be recorded by the Contractor.

All aforementioned drawings and documents shall be submitted for AM’s approval in print outs and in digital form before the commencement of the works.

In case it is deemed necessary by AM, drawings and documents shall be forwarded through the Service to the Agencies involved, such as OTE, PPC, EYDAP, D10, Municipal Authorities, EPA, etc. for verification reasons and commentary, in line with the provisions of the Design Specifications, Article 104.

3.3. Topographical Surveys and Works

There is an older topographical survey for the individual areas of the Works under scale 1:500 in the Metro OMA reference system.

The Contractor shall check and verify both accuracy and completeness of the information data provided to him, as regards any section of the Works.

The system to be utilized for all topographical works required for the construction of the Project shall be the OMA reference system.

The Contractor shall establish a Topographical Service, in line with the Design Specifications, Article 107.

In addition, the Contractor shall execute all topographical works required for measuring and establishing all horizontal and vertical control networks to be utilized for the execution of the Works.

In general, the Contractor shall execute all topographical surveys and works and all checks to be required during the construction of the Works (alignments, checks, etc.) according to the specifications documents (relevant Article 107 of the Design Specifications).

3.4. Issuance of every type of permits

Upon communication with AM, the Contractor is obliged to proceed to all necessary actions towards the Public Authorities, Organizations and Services (Municipalities, Ministries, PUO, OASA, Forestry Authorities, etc.) concerned, so that the appropriate communications be made, the relevant approvals be granted and/or all required permits be issued in due time for the execution of the works included in the scope of the Project.

TECHNICAL DESCRIPTION

Certain particular cases for which relevant communications should be made, approvals should be granted and/or permits should be issued - prior to the commencement of works -are hereby referred to as an example; namely: relocation of kiosks, relocation of weather station to Evangelismos Station, relocation of bus stops, of ticket issuing offices, chemical toilets, temporary pre-fabricated structures of OASA or of Municipalities, of fire hydrants, lighting poles, traffic cameras, removal of busts, statues, fountains, several works of art, etc. and their transportation to the locations to be indicated by the agencies involved or by AM.

Moreover, as regards works involving cutting of trees or their re-planting – should this be feasible at the locations to be indicated by the Municipality, AM or other agencies – the issuance of the required permits and/or approvals by the Agencies concerned (Forestry Authorities, Municipality, etc.) must necessarily precede.

Upon the issuance of the permits required and further to the pertinent communication with AM, the Contractor must remove, dismantle and demolish those buildings and overlaying structures, situated within the areas of the open trenches’ outlines of the construction activities shown on the worksite occupation drawings, to be occupied for the Project construction needs.

In addition, further to AM’s instruction, the Contractor shall be obliged to remove, dismantle and demolish buildings and overlaying structures, situated within the areas of the open trenches’ outlines of certain section of the works, which are not included at this phase in the worksite occupation areas, as shown on the respective drawings, but might be delivered to him by AM at a later stage.

Moreover, the Contractor is responsible to dispose all materials pertaining to removal, dismantling and demolitions and to transport same to environmentally licensed sites.

Before the commencement of the excavation and demolition works, the Contractor shall be responsible for cutting off all PUO supplies to the properties that may be occupied.

3.5. Archaeological Works

The archaeological works shall include surveys, recordings, excavations, preservations, detachment, transport, safe-guarding – temporary storage, re-positioning at their initial location, etc., of the archaeological finds.

The works shall include the fencing and safe-guarding of the archaeological works’ areas, the investigation activities (investigation trenches, etc.) for the identification of antiquities, including the necessary retaining works, archaeological excavations, recording and inventory of the finds, the preservation and safe-guarding of antiquities and the backfilling of the areas where the excavation activities have been performed and their restoration to their initial condition, further to AM’s instruction.

In addition, the works shall include the topographical survey of the areas where archaeological excavation activities are being performed, before their commencement, upon completion of the excavation depth or up to the depth where the archaeological excavation activities will stop, as well as after their backfilling and restoration.

The archaeological works shall be performed by the Contractor, under the supervision of the Services concerned of the Ministry of Culture and in line with the Specifications, as stipulated by the subject Services.

TECHNICAL DESCRIPTION

The Contractor shall perform investigation trenches for the identification of any archaeological finds at the locations, to be indicated by the Archaeological Department, within the excavation outline of the open trenches of the Project structures.

Should archaeological finds be identified, then the archaeological investigation shall commence; the subject investigation’s extent and depth shall progress based on the indications of the Archaeological Department and on AM’s consent.

In case the archaeological excavation extends at depths dictating the implementation of retaining measures, these shall be executed only further to AM’s instructions and in line with the stipulations of Paragraph 3.8 (Works for the retaining of trenches’ slopes).

It is stressed that, should it deems it advisable, AM is entitled to interrupt the archaeological excavation activities further to the pertinent communication with the Archaeological Department; in this case, the Contractor must introduce all necessary measures indicated to him, so as to ensure protection of the archaeological finds.

Upon completion of the works, at any stage whatsoever, the occupied area shall be reinstated in line with AM’s instructions, either at its initial condition (road-pavement, sidewalks, etc.) or as to be indicated by AM.

3.6. PUO Networks diversions

The scope of the project shall include the relocations of all existing PUO networks that pass through the excavation outlines of the open trenches, according to AM’s and the respective Organizations’ instructions/designs and requirements. The works shall concern the excavation of new trenches, the supply and installation of the networks, according to the specifications of the organizations, the backfilling of the aforesaid trenches and the reinstatement of the areas according to AM’s instructions, either at their initial condition (road-pavement, sidewalks, etc.) or as to be indicated by AM. It is stressed that as concerns the hydraulic networks, signalling and municipal lighting, the Contractor shall execute all related works, while as concerns the remaining networks, the Contractor shall execute only the excavation and backfilling related works, along with the works for the construction of manholes and the concreting works at passageways, etc., unless otherwise requested by the pertinent organization.

“Existing networks” means both underground and overhead networks of the Public Utility Organizations (PUOs), regardless of whether they are active or not. These networks are as follows:

- EYDAP and YPOMEDI DEPARTMENT OF HYDRAULIC WORKS OF ATTICA REGION (D10) (water supply, fire extinguishing, waste and rainwater pipes)
- PPC (high, medium and low voltage cables)
- OTE (telephones) and all mobile telephony networks
- EPA (gas)
- D.KE.O (traffic lights)
- Municipal Lighting
- Municipal Water Supply

The Contractor shall receive all types of design approvals and permits required for the implementation of the Project. The inventory of the existing networks is presented on the

TECHNICAL DESCRIPTION

drawings attached to the Tender Documents. It is stressed that the locations of the networks shown on the drawings are indicative.

The Contractor shall perform his own investigation works in order to identify all networks within the excavation outline of the open trenches and to verify their exact locations, through the conduct of investigation trenches. In addition, the Contractor is obliged to perform investigation trenches outside the excavation outline of the open trenches too, at locations to be indicated by AM. Drawings shall be prepared for each investigation trench, to be submitted to AM, per its instructions.

Based on the results of the investigation trenches, and through coordination meetings with representatives on the part of all PUOs concerned and AM, the Contractor shall shall prepare the coordination drawing that will present the proposed relocations of all PUO networks. The coordination drawing shall be submitted to AM for approval.

Special attention should be paid so that all routings of the permanent relocations be conducted in public areas.

The Contractor is solely responsible for the coordination among the agencies and for finding a common solution to be accepted by all agencies involved.

The approved coordination drawing shall constitute the basis for the preparation of the detailed final designs for the diversion and implementation of the PUO networks.

The detailed final designs for the diversion of PPC, OTE and all mobile telephony networks, as well as for the diversion of the Natural Gas Company networks shall be prepared by the subject Organizations. However, the subject Organizations may require that the detailed final design be prepared by the Contractor.

The detailed final designs for the diversions of the networks for waste and water supply of EYDAP, Department of Hydraulic Works (D10) for rain water and for traffic lighting and Signaling networks of the Municipalities shall be prepared by the Contractor. Firstly, the Contractor shall submit the detailed final designs to AM for commentary, according to the approved coordination drawing. Upon incorporating AM's comments – if any – the Contractor shall submit for approval the subject designs to the Organizations concerned. If remarks are compiled on the designs, as foreseen in the contracts documents, by the Organizations, then the Contractor shall resubmit the designs, since he is solely responsible for their final approval.

On a per case basis and on condition that AM deems that minimizing disturbance in the city function imposes the utilization of the pipe-jacking method for the diversion of a network, then the Contractor ought to implement this method further to AM's relevant instruction.

3.7. Traffic Diversions

The Contractor shall study and implement all traffic arrangements to be required in the framework of this Contract.

The Contractor is responsible to receive all required approvals and permits by AM and the Services/Agencies concerned.

Throughout the duration of works, direct access of the pedestrians to all properties and public areas, which are in direct proximity to the worksite, shall be ensured.

TECHNICAL DESCRIPTION

In the framework of implementing the subject diversions, the Contractor shall make all provisions to manufacture or install traffic signs, cones, portable traffic barriers, signage stripes, traffic lights, temporary lighting and other road safety items of equipment required for traffic arrangement reasons.

The Contractor is responsible to maintain both horizontal and vertical signage throughout the duration of the diversions applied.

3.8. Works for the retaining of the trenches’ slopes

A system for the temporary retaining of the trenches’ slopes shall apply to as many trenches as required (due to the excavation depth in combination with the *in situ* soil conditions and the adjacent structures or road traffic) for the positioning of the relocated PUO networks. The type, the construction materials and the geometric characteristics of this system shall derive from the relevant retaining design, in line with the requirements of the relevant Article of the Design Specifications, which shall be submitted to AM for approval and which may include – on a per case basis – poling boards, micro-piling, piling, shotcreting, nailing/anchoring, struts, and other system.

The aforesaid shall also apply in case it is foreseen - either from the beginning of the project or as the works progress - that the archaeological excavation works will extend at a sufficient depth.

In the cases mentioned above, it will be required to install a geomechanical and structural monitoring system (e.g. leveling points, crack-meters, etc.) at the adjacent buildings/structures for the monitoring of displacements during the execution of the excavation works.

3.9. Worksite Areas

The Contractor shall introduce all appropriate measures so that the limits, the extent and the operations of the worksite areas may induce the minimum possible disturbance in the vicinity, in line with the environmental terms related provisions.

The worksite areas shall be un-built areas – preferably and to the extent possible public areas – to be temporarily occupied by the Contractor for the time period required. The occupation of the areas shall depend on the phases of the Works and shall be necessarily conducted upon the relevant AM’s instruction.

Before proceeding to the occupation, the Contractor shall submit to AM for approval the inventory of the existing features of the areas to be occupied.

As regards the areas that are occupied for the execution of the Works, either private areas or areas belonging to Municipalities or the Greek State, etc., Acceptance / Delivery Protocols shall be compiled with the owner (if it is a private area) or the Municipality or the Agency, under the jurisdiction of whose is the area to be occupied.

Upon completion of each individual Work, either in full or in part (the stage of completion shall be determined by AM through a relevant instruction to be given to the Contractor), the Contractor, further to the pertinent communication with AM, shall compile and submit

TECHNICAL DESCRIPTION

a Delivery / Acceptance Protocol of the areas, either only with AM, or with the owner of each area, or with the Service under the jurisdiction of which is the subject area.

The Contractor is obliged to dismantle / demolish all overlaying structures situated within the areas to be either temporarily or permanently occupied for the construction needs of the Works. The same applies to the disposal of all demolition debris and their transportation to environmentally licensed sites.

Before the commencement of works, the Contractor shall install a temporary fencing at the perimeter of each worksite in the Works construction areas. Apart from the demarcation of the boundaries and the protection of the worksite area, the fencing must ensure protection of the trenches against flooding coming from the upstream areas. Upon completion of the fencing of the worksite area, the Contractor shall submit to AM a record of the fencing limits, which will include the measurement of the entire surface area that has been occupied as a worksite area.

In addition, the Contractor is responsible for ensuring and constructing passageways and accesses (for both pedestrians and vehicles) to the properties disturbed by the occupations of the areas for the construction of Works.

The boundaries of the areas to be occupied are shown on the worksite occupation drawings at the current phase. Further to AM's instruction at a subsequent phase, AM might deliver to the Contractor the areas which are included within the outlines of the open trenches but are not included in the subject drawings due to existing structures.

It is stressed that, further to the worksite areas to be occupied as shown on the respective drawings, the occupation of those areas that are deemed necessary for the execution of PUO network diversions is also provided for.

These areas cannot be foreseen at this stage, since the Coordination Designs for the PUO network diversions are not known in advance, these designs are to be compiled by the Contractor and the PUOs concerned and which shall accurately determine the routings of the networks to be relocated to their new positions,.

3.10. Environmental Issues

The Contractor shall proceed to the implementation of the technical scope of the Project, introducing at the same time all necessary preventive, corrective, countervailing and other measures to address any impact on the natural and man-made environment.

More specifically, the Contractor shall adhere to:

1. National and European Community Environmental Legislation;
2. All provisions stipulated in the Decision Approving the Environmental Terms of the Project (MINISTERIAL DECISION No. 9724/21-5-2018);
3. All suggestions contained in the approved Environmental Impact Assessment Study (EIA) of the Project, and
4. All obligations determined in article 29 of the Conditions of Contract and in General Specification GS 0180.

3.11. Project Log

Upon completion of the Works, for which he will be instructed to construct, either in full or in part (the stage of completion shall be determined by AM through a relevant instruction



**“ARCHAEOLOGICAL WORKS AND PUBLIC UTILITY
ORGANIZATIONS NETWORK RELOCATIONS – ATHENS
METRO LINE 4, SECTION A’ ALSOS VEIKOU GOUDI”**

**RFP-322/17
(Α.Σ. 66925)**

TECHNICAL DESCRIPTION

to be given to him), the Contractor shall compile and submit to AM the Topographical As-Built Drawings, separately from all other As-Built Drawings, which shall include the As-Built inventory of all features of the Works (at the stage they will have been completed) through topographic methods and shall be delivered to AM in printouts and in digital format. The Contractor shall submit to AM all As-Built drawings of the networks he has diverted.

TECHNICAL DESCRIPTION

4. List of Drawings

ΑΡΧΑΙΟΛΟΓΙΚΕΣ ΕΡΓΑΣΙΕΣ ΚΑΙ ΜΕΤΑΤΟΠΙΣΕΙΣ ΔΙΚΤΥΩΝ ΟΚΩ ΤΟΥ ΤΜΗΜΑΤΟΣ Α’ ΤΗΣ ΓΡΑΜΜΗΣ 4 " ΑΛΣΟΣ ΒΕΙΚΟΥ – ΓΟΥΔΗ" / ΤΟΥ ΜΕΤΡΟ ΤΗΣ ΑΘΗΝΑΣ ARCHAEOLOGICAL WORKS AND PUBLIC UTILITY ORGANIZATIONS NETWORK RELOCATIONS –ATHENS METRO LINE 4, SECTION A’ "ALSOS VEIKOU GOUDI"*					
ΛΙΣΤΑ ΣΧΕΔΙΩΝ / DRAWINGS LIST					
A/A	ΑΡΙΘΜΟΣ ΣΧΕΔΙΟΥ DRAWING NUMBER	ΤΙΤΛΟΣ	TITLE	ΚΛΙΜΑΚΑ / SCALE	ΚΟΥΤΙ / BOX
		ΣΧΕΔΙΑ ΧΑΡΑΞΕΩΝ	ALIGNMENT DRAWINGS		
1	4G00CW203B101A	ΓΕΝΙΚΗ ΟΡΙΖΟΝΤΙΟΓΡΑΦΙΑ	GENERAL HORIZONTAL ALIGNMENT	1/5000	
		ΣΧΕΔΙΑ ΔΙΚΤΥΩΝ ΟΚΩ	PU NETWORK DRAWINGS		
2	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (1 / 16)	PU NETWORK INVENTORY (1 / 16)	1/1000	
3	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (2 / 16)	PU NETWORK INVENTORY (2 / 16)	1/1000	
4	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (3 / 16)	PU NETWORK INVENTORY (3 / 16)	1/1000	
5	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (4 / 16)	PU NETWORK INVENTORY (4 / 16)	1/1000	
6	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (5 / 16)	PU NETWORK INVENTORY (5 / 16)	1/1000	
7	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (6 / 16)	PU NETWORK INVENTORY (6 / 16)	1/1000	
8	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (7 / 16)	PU NETWORK INVENTORY (7 / 16)	1/1000	
9	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (8 / 16)	PU NETWORK INVENTORY (8 / 16)	1/1000	
10	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (9 / 16)	PU NETWORK INVENTORY (9 / 16)	1/1000	
11	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (10 / 16)	PU NETWORK INVENTORY (10 / 16)	1/1000	
12	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (11 / 16)	PU NETWORK INVENTORY (11 / 16)	1/1000	
13	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (12 / 16)	PU NETWORK INVENTORY (12 / 16)	1/1000	
14	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (13 / 16)	PU NETWORK INVENTORY (13 / 16)	1/1000	
15	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (14 / 16)	PU NETWORK INVENTORY (14 / 16)	1/1000	
16	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (15 / 16)	PU NETWORK INVENTORY (15 / 16)	1/1000	

TECHNICAL DESCRIPTION

17	4G00PW190B101A	ΚΑΤΑΓΡΑΦΗ ΔΙΚΤΥΩΝ ΟΚΩ (16/ 16)	PU NETWORK INVENTORY (16 / 16)	1/1000	
		ΤΟΠΟΓΡΑΦΙΚΑ			
18	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (1/45)	TOPOGRAPHICAL SURVEY (1/45)	1/500	
19	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (2/45)	TOPOGRAPHICAL SURVEY (2/45)	1/500	
20	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (3/45)	TOPOGRAPHICAL SURVEY (3/45)	1/500	
21	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (4/45)	TOPOGRAPHICAL SURVEY (4/45)	1/500	
22	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (5/45)	TOPOGRAPHICAL SURVEY (5/45)	1/500	
23	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (6/45)	TOPOGRAPHICAL SURVEY (6/45)	1/500	
24	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (7/45)	TOPOGRAPHICAL SURVEY (7/45)	1/500	
25	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (8/45)	TOPOGRAPHICAL SURVEY (8/45)	1/500	
26	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (9/45)	TOPOGRAPHICAL SURVEY (9/45)	1/500	
27	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (10/45)	TOPOGRAPHICAL SURVEY (10/45)	1/500	
28	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (11/45)	TOPOGRAPHICAL SURVEY (11/45)	1/500	
29	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (12/45)	TOPOGRAPHICAL SURVEY (12/45)	1/500	
30	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (13/45)	TOPOGRAPHICAL SURVEY (13/45)	1/500	
31	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (14/45)	TOPOGRAPHICAL SURVEY (14/45)	1/500	
32	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (15/45)	TOPOGRAPHICAL SURVEY (15/45)	1/500	
33	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (16/45)	TOPOGRAPHICAL SURVEY (16/45)	1/500	
34	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (17/45)	TOPOGRAPHICAL SURVEY (17/45)	1/500	
35	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (18/45)	TOPOGRAPHICAL SURVEY (18/45)	1/500	
36	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (19/45)	TOPOGRAPHICAL SURVEY (19/45)	1/500	
37	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (20/45)	TOPOGRAPHICAL SURVEY (20/45)	1/500	
38	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (21/45)	TOPOGRAPHICAL SURVEY (21/45)	1/500	
39	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (22/45)	TOPOGRAPHICAL SURVEY (22/45)	1/500	

TECHNICAL DESCRIPTION

40	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (23/45)	TOPOGRAPHICAL SURVEY (23/45)	1/500	
41	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (24/45)	TOPOGRAPHICAL SURVEY (24/45)	1/500	
42	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (25/45)	TOPOGRAPHICAL SURVEY (25/45)	1/500	
43	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (26/45)	TOPOGRAPHICAL SURVEY (26/45)	1/500	
44	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (27/45)	TOPOGRAPHICAL SURVEY (27/45)	1/500	
45	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (28/45)	TOPOGRAPHICAL SURVEY (28/45)	1/500	
46	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (29/45)	TOPOGRAPHICAL SURVEY (29/45)	1/500	
47	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (30/45)	TOPOGRAPHICAL SURVEY (30/45)	1/500	
48	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (31/45)	TOPOGRAPHICAL SURVEY (31/45)	1/500	
49	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (32/45)	TOPOGRAPHICAL SURVEY (32/45)	1/500	
50	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (32/45)	TOPOGRAPHICAL SURVEY (33/45)	1/500	
51	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (33/45)	TOPOGRAPHICAL SURVEY (33/45)	1/500	
52	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (34/45)	TOPOGRAPHICAL SURVEY (34/45)	1/500	
53	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (35/45)	TOPOGRAPHICAL SURVEY (35/45)	1/500	
54	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (36/45)	TOPOGRAPHICAL SURVEY (36/45)	1/500	
55	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (37/45)	TOPOGRAPHICAL SURVEY (37/45)	1/500	
56	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (38/45)	TOPOGRAPHICAL SURVEY (38/45)	1/500	
57	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (39/45)	TOPOGRAPHICAL SURVEY (39/45)	1/500	
58	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (40/45)	TOPOGRAPHICAL SURVEY (40/45)	1/500	
59	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (41/45)	TOPOGRAPHICAL SURVEY (41/45)	1/500	
60	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (42/45)	TOPOGRAPHICAL SURVEY (42/45)	1/500	
61	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (43/45)	TOPOGRAPHICAL SURVEY (43/45)	1/500	
62	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (44/45)	TOPOGRAPHICAL SURVEY (44/45)	1/500	
63	4G00PW205B101A	ΤΟΠΟΓΡΑΦΙΚΗ ΑΠΟΤΥΠΩΣΗ (45/45)	TOPOGRAPHICAL SURVEY (45/45)	1/500	

TECHNICAL DESCRIPTION

		ΕΡΓΟΤΑΞΙΑΚΕΣ ΚΑΤΑΛΗΨΕΙΣ	SITE INSTALLATIONS		
64	4H11PW202B101A	ΦΡΕΑΡ ΕΥΔΑΠ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	EYDAP SHAFT SITE INSTALLATION	1/500	
65	4I11PW202B101A	ΦΡΕΑΡ ΒΕΪΚΟΥ- ΠΛΥΝΤΗΡΙΟ-ΣΥΝΤΗΡΗΣΗ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ 1/2	VEIKOU SHAFT WASHING PLANT- MAINTENANCE SITE INSTALLATION 1/2	1/500	
65	4I11PW202B101A	ΦΡΕΑΡ ΒΕΪΚΟΥ- ΠΛΥΝΤΗΡΙΟ-ΣΥΝΤΗΡΗΣΗ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ 2/2	VEIKOU SHAFT WASHING PLANT- MAINTENANCE SITE INSTALLATION 2/2	1/500	
66	4S11PW202B101A	ΣΤΑΘΜΟΣ ΑΛΣΟΣ ΒΕΪΚΟΥ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	ALSOS VEIKOU STATION SITE INSTALLATION	1/500	
67	4S12PW202B101A	ΣΤΑΘΜΟΣ ΓΑΛΑΤΣΙ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	GALATSI STATION SITE INSTALLATION	1/500	
68	4S13PW202B101A	ΣΤΑΘΜΟΣ ΕΛΙΚΩΝΟΣ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	ELIKONOS STATION SITE INSTALLATION	1/500	
69	4S14PW202B101A	ΣΤΑΘΜΟΣ ΚΥΨΕΛΗ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	KIPSELI STATION SITE INSTALLATION	1/500	
70	4S15PW202B101A	ΣΤΑΘΜΟΣ ΔΙΚΑΣΤΗΡΙΑ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	DIKASTIRIA STATION SITE INSTALLATION	1/500	
71	4S16PW202B101A	ΣΤΑΘΜΟΣ ΑΛΕΞΑΝΔΡΑΣ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	ALEXANDRAS STATION SITE INSTALLATION	1/500	
72	4S17PW202B101A	ΣΤΑΘΜΟΣ ΕΞΑΡΧΕΙΑ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	EXARHIA STATION SITE INSTALLATION	1/500	
73	4S18PW202B101A	ΣΤΑΘΜΟΣ ΑΚΑΔΗΜΙΑ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	AKADIMIA STATION SITE INSTALLATION	1/500	
74	4S19PW202B101A	ΣΤΑΘΜΟΣ ΚΟΛΩΝΑΚΙ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	KOLONAKI STATION SITE INSTALLATION	1/500	
75	4S20PW202B101A	ΣΤΑΘΜΟΣ ΕΥΑΓΓΕΛΙΣΜΟΣ & ΦΡΕΑΡ ΔΙΑΚΛΑΔΩΣΗΣ ΕΥΑΓΓΕΛΙΣΜΟΥ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	EVANGELISMOS STATION & EVANGELISMOS TURN OUT SHAFT SITE INSTALLATION	1/500	
76	4H21PW202B101A	ΦΡΕΑΡ ΦΟΡΜΙΩΝΟΣ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	FORMIONOS SHAFT SITE INSTALLATION	1/500	
77	4S21PW202B101A	ΣΤΑΘΜΟΣ ΚΑΪΣΑΡΙΑΝΗ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	KAISARIANI STATION SITE INSTALLATION	1/500	
78	4H22PW202B101A	ΦΡΕΑΡ ΝΗΑΡ ΗΣΤ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	NEAR HST SHAFT SITE INSTALLATION	1/500	

TECHNICAL DESCRIPTION

79	4S22PW202B101A	ΣΤΑΘΜΟΣ ΠΑΝΕΠΙΣΤΗΜΙΟΥΠΟΛΗ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	PANEPISTIMIOUPOLI STATION SITE INSTALLATION	1/500	
80	4S23PW202B101A	ΣΤΑΘΜΟΣ ΙΛΙΣΙΑ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	ILISIA STATION SITE INSTALLATION	1/500	
81	4S24PW202B101A	ΣΤΑΘΜΟΣ ΖΩΓΡΑΦΟΥ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	ZOGRAFOU STATION SITE INSTALLATION	1/500	
82	4S25PW202B101A	ΣΤΑΘΜΟΣ ΓΟΥΔΗ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	GOUDI STATION SITE INSTALLATION	1/500	
83	4H26PW202B101A	ΦΡΕΑΡ ΔΙΚΑΙΟΣΥΝΗΣ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	DIKAIOSINIS SHAFT SITE INSTALLATION	1/500	
84	4I27PW202B101A	ΦΡΕΑΡ ΤΒΜ ΚΑΤΕΧΑΚΗ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	TBM SHAFT KATEXAKI SITE INSTALLATION	1/500	
85	4J28PW202B101A	ΦΡΕΑΡ ΓΝΑ ΕΡΓΟΤΑΞΙΑΚΗ ΚΑΤΑΛΗΨΗ	GNA SHAFT SITE INSTALLATION	1/500	