TABLE OF CONTENTS

GENERAL TERMS

The scope of this Price List is to determine the unit prices of the works deemed necessary for the workmanlike completion of the Project, as specified in the remaining Tender Documents set in the Invitation to Tender.

1. The unit prices of the subject Price List refer to units of fully completed works, as described in detail as follows, to be executed in the Project area. The unit prices include all costs mentioned in the description of works, as well as those costs required for the complete and workmanlike execution of works, in accordance with the other Tender Documents as well.

   No claim or doubt can be substantiated as to the type and performance of machinery, the specialties and number of labour-technicians, as well as to whether mechanical means can be utilized or not, unless otherwise specified in the items of the subject document.

   In view with the above, the estimated direct cost of the Project, i.e. the total cost of the individual works or operations forming the physical scope of the Project, can be obtained based on the unit prices of this Price List. These unit prices include, for example but not limited to, the following:

1.1 Any surcharge concerning the materials incorporated into the project due to taxes, duties, fees, customs clearance, special taxes etc., VAT excluded. The Contractor is not exempted from the tolls to be paid for each type of transportation means that he shall use.

1.2 The cost for the supply of any type, either incorporated and not, main and auxiliary materials, their transportation to the locations where works shall be executed, storage, safe-guarding, processing (if required) and approaching cost, taking also into account the cost for the required loading/unloading, insurance of transportations, transportation means idle time and the required indirect transportations, except for special cases where the transportation cost is paid separately in accordance with the respective items of the Price List.

   Similarly, the cost for loading/unloading and transportation (taking into account the transportation modes' idle time) of the redundant and/or unsuitable excavation spoil and other materials, to appropriate dumping sites, taking into account the applicable Environmental Terms, in accordance with the Special Conditions of Contract and the other terms of the Tender.

   The gate fee in licensed landfills for waste deriving from excavations, construction works and demolitions (ECDW), as specified in the Joint Ministerial Decision No. 36259/1757/E103/2010 (Government's Gazette Issue No. 1312B/2010) and detailed in Circular under Ref. No. οικ 4834/25-1-2013 of the Ministry of Environment, Energy and Climate Change, is not included in the respective prices of the Price List.

   The "gate fee in licensed landfills" is the fee paid for using this specific site from the time of delivery of the subject spoil throughout their processing period.

1.3 The expenses for salaries, wages, overtime, added work, social security contributions (to the Social Insurance Institute–IKA, insurance entities or other Greek and/or foreign Insurance Organizations etc.), for bonuses, allowances specified by the –applicable each time- Collective Labour Agreements (leave & holiday allowances, household allowance, post allowance, allowance for unhealthy work, public holiday allowance etc.), night shift (work) allowance, (except for works foreseen to be executed during night hours and are priced separately) etc., of any personnel category (labourers-technicians of all specialties, drivers and vehicle and machine operators, technicians of work crews, scientific personnel,

and supervisors with specialized scope of work, Greeks or foreigners employed in the construction of the Project, on site or anywhere else.

1.4 Any type of expenses for the installation, equipment and operation of worksite laboratory, if provided for, acceptance and transfer of samples and execution of inspections and tests either at the worksite laboratory or in a National or private laboratory approved by the Service, in accordance with the bidding terms.

1.5 The expenses for the installation and operation of precast segments production plants, if provided for by the terms of the Tender, complexes for the production of crushed materials (stone processing plant/crushing plant), concrete, asphalt mixes etc. in the worksite area or elsewhere.

These expenses include the following: ensuring the required area, constructing infrastructures, building works and other works in the subject plants, installation of the required –per case- equipment, any kind of operational expenses, loading/unloading and transportation of raw materials to the plant and of the produced items to the locations where they will be integrated in the Project, as well as the disassembly of facilities upon completion of works, dismantling of the relevant infrastructure (bases, walls etc. concrete structures or structures made of any other material) and reinstatement of the area at a level acceptable by the Service and in accordance with the applicable Environmental Terms.

The aforementioned terms governing the dismantling of the plants and the reinstatement of the relevant areas apply in the following cases:

(a) When the subject plants have been installed in an area provided by the State;

(b) When these plants have been constructed in areas ensured by the Contractor, but for which a temporary installation-operation permit has been issued to meet the needs of this specific Project.

1.6 Any type of premium for the personnel engaged in the Project, the transportations, the transportation means, the project machinery and the facilities.

1.7 Surcharges due to the execution of works at the same time with the traffic circulation and the implementation of the required protective measures, the expenses for the implementation of measures for the protection of structures adjacent to areas where works are under execution, for accident prevention for workers or third parties, for preventing damage caused to tangible or intangible assets/removable or not items of third parties, for preventing pollution of gorges, rivers, coasts etc., as well as expenses for the implementation of measures for the protection of the works at each phase of their construction, irrespective of the time of the year (excavations, foundations, scaffoldings, concretings etc.) until their final acceptance.

1.8 The expenses for quality control and the construction of any "test sections" provided for by Conditions of Contract and the other terms of the Tender (measurements, laboratory controls and tests, value of the materials, use of machinery, work etc.).

1.9 The expenses for the availability, delivery and operation of the main and auxiliary mechanical equipment and means (e.g. scaffolding, tools) required for specific works/operations of the Project in the framework of the approved Time Schedule, which include the rental fees, the transportation on site, the assembly (when required), storage, safe-guarding, insurance, earnings for drivers, operators, assistants and technicians, fuel, lubricants and other consumables, spare parts, repairs, transportation to the Project area, increased wage due to work during public holiday, any idle time and delays (not due to the Project Owner's liability), their dismantling (if required) and removal from the Project.

Included to the above are also any kind of expenses for standby equipment to be utilized in case of failure or any other cause.

1.10 The expenses for the supply or manufacturing, loading/unloading and transportation on the predetermined location, as well as the expenses of any temporary deposits and reloading of aggregates originating from quarries, mines etc., except for the cases where in the relevant items of this Price List it is clearly specified that transportation expenses will be compensated separately.

The expenses for washing, mixing or enriching materials, so that they meet the Specifications foreseen by the Project design, taking into consideration the relevant environmental terms.

1.11 Any surcharges arising from delays, reduced performance, machinery and personnel transfer due to:

(a) the presence of obstacles in the area where works are being executed (archaeological finds, PUO networks, etc.)

(b) non completed expropriation procedures in sections where works are being executed (on condition that the possibility for executing works in parts applies)

(c) any special requirements involved in addressing the obstacles raised by the agencies concerned (Ministry of Culture, PPC, Municipal Company for Water Supply and Sewage, etc.)

(d) the eventual execution of the works in phases due to the aforementioned obstacles

(e) the execution of the necessary measurements, tests and surveys (topographical, laboratory, geotechnical etc.), as well as due to the remaining obligations of the Contractor, as these are foreseen in the tender documents and are either compensated separately or included in a converted form in the percentage for the Overhead and the Contractor's profit or in other items of this Price List

(f) the introduction of measures for ensuring pedestrian and vehicular circulation

(g) temporary or permanent traffic arrangements in the wider area of the Project for any reason whatsoever (e.g. holidays, road network and infrastructures maintenance, damage to other works, execution of other works etc.).

1.12 The expenses for the introduction of measures for smooth, safe passenger and vehicle circulation in the works execution areas, such as:

(1) The expenses for the provision of shoring in trenches, for the reinstatement of pedestrian and vehicular circulation, when deemed necessary by the Service and the competent Authorities

(2) The expenses for introducing protective measures for the unhindered and safe pedestrian and vehicular circulation at the perimeter of the area where works are being executed, where required, namely fencing of trenches and in general, works execution areas, public information, signage and street lighting of the worksite area (except for the signage specified in the design that is priced separately), temporary traffic arrangement and reinstatement etc. as well as the expenses for the removal of the aforementioned provisional structures and signage after the completion of the works and reinstatement of the original signage.

1.13 The expenses for the topographical works and constant check of the alignment of the Works (throughout the construction phases).

1.14 The expenses for the preparation of detailed final designs (when required for adapting the data of the general final design to the exact relief of the soil or existing structures), construction drawings and details drawings, the expenses for detecting and tracing obstacles in the area where works are being executed and the expenses for preparing the relevant designs for dealing with the obstacles encountered (e.g. existing foundations, high groundwater table level, Public Utility Organizations networks [PUO]),

1.15 The expenditure for preparing the bar bending schedule (when not included in the design.

1.16 The expenses for updating the layout drawings of the design using the relevant data as these ensue from the investigation trenches or the construction of PUO networks.

1.17 The expenses for sorting waste from excavation, construction and demolition activities into categories of materials and the expenses for financial contributions to the alternative waste management systems in licensed areas shall be compensated on a cost plus basis, plus the Contractor's Profit and Overhead Expenses, on which the average presumed discount shall apply.

1.18 The expenses ensuing from patented methods and patent rights implemented in any way whatsoever in the Project for the workmanship like execution of the works.

1.19 The expenses for configuring accesses, entrances and work floors in various sections of the project and, in general, any other auxiliary structure to be required at any stage of the works, when special measuring is not foreseen in the tender documents, as well as the expenses for dismantling temporary structures and for the environmental rehabilitation of the areas (accesses, entrances, work floors etc.) unless the Service has provided its written consent for maintaining on site the project.

1.20 The expenses for protecting and safeguarding the operation of the PUO networks crossing the PUO networks trenches from side to side or those PUO networks that are affected from the executed works locally. The Contractor of the Project shall be held exclusively liable - in terms of civil and criminal liability - for any damage and wear to these networks until works are completed.

1.21 The expenses for preventing and reinstating any kind of damage and the compensation for any type of damage or unusual wear to existing structures during the execution of the works or the circulation of the Contractor's heavy-duty equipment (e.g. high-capacity transportation means, track-laying tractors) caused due to the non observance of the contractual terms, the suggestions of the Service, the applicable provisions and, in general, which occurred at the Contractor's liability.

1.22 If no provision is made in the contract documents for special compensation: any kind of expenses for worksite roads, as these derive from the Contractor's method statement, which are required for safe circulation of the equipment and the materials for the construction of the Project (leasing or securing rights of way, construction of roads or improvement of existing ones, signage, maintenance) as well as the expenses for ensuring the necessary sites for the discharge of redundant or unsuitable excavation spoils (payment of fee to the owners, securing the relevant permits, construction of access roads, extension/improvement of existing ones) and final configuration of areas after the completion of the works, in line with the approved environmental terms.

1.23 The expenses for the execution of preliminary works on the old or new road pavement surfaces for asphalt laying purposes, such as sweeping, cleaning, opening of holes for fastening anchors, as well as the expenses for the transportation and disposal of the materials resulting from the aforementioned works.

1.24 The expenses for the special designs to be compiled by the Contractor, such as concrete and asphalt mix designs, scaffolding related designs, etc. These designs shall not be compensated separately, as provided for by the tender documents.

1.25 The expenses related to the issuance of work execution permits by the competent Authorities, the Town Planning Department and the Public Utilities Organizations, unless a separate payment for the subject permits is provided for in the tender documents.

1.26 The expenses for the introduction of measures to ensure the continuous and unhindered operation of the networks that already exist in the Project area (water supply, irrigation, sewage and drainage, trenches, canals, gorges, etc.) and are affected by the execution of works, especially in the following cases:

(1) the networks are relatively insufficient and sensitive under adverse conditions;

(2) the operability of the networks is likely to be burdened if the Contractor does not introduce measures for preventing debris – mainly due to earthworks or the execution of other activities – entering worksites.

Clarifications related to the items of this Price List, in which Greek Technical Specifications (ETEPs) are substituted by the Provisional Greek Technical Specifications (PETEPs).

Circular #17/ΔΚΠ/ΟΙΚ./1322/07.09.2016 issued by the Ministry of Infrastructures, Transport and Networks - in view of avoiding any problems related to the execution of Public Works and until the completion of the procedures for the updating of 59 ETEPs - suggests the application of the respective Provisional Greek Technical Specifications (PETEPs) in all public works.

On the basis of Circular #17/ΔΚΠ/ΟΙΚ./1322/07.09.2016, whenever in the subject ETEPs reference is made to the Unified Price Lists of Works, consideration shall be made, instead of the aforesaid ETEPs, to the PETEPs of the Annexes of the Circular at hand.

Therefore, if in the relevant PETEPs materials and works are differentiated as related to the content of the Descriptive Items of this Price List, then the materials-works of the PETEPs shall be those taken into consideration for the compilation of the Offer, without any differentiation of the unit prices of these items.

The unit prices of this Price List are increased by the Overhead and the Contractor's Profit percentage, which includes any kind of expenses, which cannot be allocated to specific works but concern in total the overall cost of the Project, such as retention or liabilities thereof, such as Project management and supervision related expenses, worksite signage expenses, taxes, duties, premiums, capital interest rates, letters of guarantee commissions, expenses for the operation of the offices, etc., any kind of precarious expenses, as well as the anticipated profit from the execution of works.

The aforesaid Overhead and Contractor's Profit (OH & CP) amounts to eighteen per cent (18%) of the works budget, as it derives on the basis of the prices presented in the Contractor's Offer Price List, in line with the pertinent provisions, and as distinguished here below, namely:

(a) Fixed expenditure, i.e.; expenditure undertaken once during the execution of the contract. The subject expenditure includes the following expenses intended for:

(1) Ensuring and configuring the worksite areas for the construction of main and ancillary worksite installations, e.g. offices, laboratories and other facilities of the Contractor or other entities, if provided for by the contract documentation;

(2) Constructing main and ancillary worksite installations of the Contractor or other entities, if provided for by the contract documentation;

(3) Fencing and/or for ensuring other means for supervising the worksite installation and the work execution areas, if provided for by the contract documentation;

(4) The items of equipment of main and ancillary worksite installations in order to ensure operational readiness, to ensure water and power supply, telephone connection, sewage and other amenities, in line with the terms of the tender;

(5) Removing the main and ancillary worksite installations after the completion of the project, as well as the expenses intended for reinstating the areas in an acceptable manner and per the approved Environmental Terms;

(6) Mobilization (arrival in the worksite area) of the required equipment of general use (e.g. cranes, personnel transportation vehicles, etc.), as foreseen by the time schedule of the project, and demobilization upon completion of the foreseen employment period;

(7) The expenses for reviewing the designs of the project and any supplementation and modifications, if not included in the direct cost;

(8) The expenses for filling in the Health and Safety Plan/File, in line with the applicable provisions;

(9) Taxes.

(10) Letters of guarantee.

(11) Insurance of the Project.

(12) Pre-contractual stage.

(13) Availability of Personal Protection Equipment (PPE);

(14) Precarious expenses of any kind (e.g. finding the appropriate locations for accommodating the offices and other installations, financial expenses, designs related expenses that my derive during the progress of the works, extensive disputes and requirement for strong legal support, requirement for introducing protection measures due to extreme *in situ* conditions that had not been taken into account, thefts not covered by the insurance).

(b) Time dependent expenditure, i.e. expenditure depending on the duration of the contract. The subject expenditure includes the following expenses intended for:

(1) Use – operation of the worksite installations and amenities (use of installations and areas and keeping them clean, in accordance with the provisions of the approved Environmental Terms);

(2) The Contractor's general supervision and administration members of personnel should they be permanent employees exclusively engaged in the Project (otherwise, the employment period and their availability in the Project shall be taken into account). The lawful indemnifications related expenses in a converted form shall be also included. Scientific personnel and supervisors, with a specialized scope of work (e.g. earthworks, technical and asphalt works, etc.) shall not be included therein;

(3) Legal support;

(4) The services provided by External Technical Consultants called upon to this end;

(5) The performance of the duties of the aforementioned personnel, e.g. use of cars;

(6) The operation of machinery of general use, e.g. cranes, vehicles for the transportation of personnel;

(7) The measurements of general indices and parameters foreseen by the approved environmental terms and introduction of measures for compliance with them;

(8) The Maintenance of the project for the time foreseen;

(9) Capital interest rates and financial cost, in general;

(10) The amount corresponding to the cost for the seat of the company and/or function of the joint venture, depending on its percentage in the turnover of the company;

The Value Added Tax (VAT) on the Contractor's accounts shall be borne by the Project Owner.

If the need arises for executing works presenting different – yet in line with the tendering terms – characteristics, as compared to similar works included in the subject Price List, or if the need arises for executing works that are measured differently, then the figures of these works can be described in items of this Price List in a converted form, in line with the following example:

(1) Perforated drains' pipes, storm- and waste-water sewage pipes made of concrete, PVC, etc.

For nominal diameter D_N of a pipe, which is to be used, different than the DN, referred to in the sub-items of the respective items of this Price List, and for a corresponding manufacturing material, strength category and protection method, the length of the pipe to be used shall be converted into the length of the pipe of the immediately smaller nominal diameter, which is described in the Price List, based on the following ratio:

$$D_N / D_M$$

where D_N: Nominal Diameter of the pipe to be used

D_M: The immediately smaller nominal diameter of the pipe included in this Price List.

If no smaller diameter exists, then the immediately greater existing diameter shall be utilized as DM.

(2) Configuration of joints with precast slabs of FLEXCELL type or similar

For thickness D_N of a slab to be used greater than the thickness of the contractual slab described in this Price List (12 mm), the surface of the slab to be used shall be converted into the surface of the 12mm thick contractual slab, based on the following ratio:

$$D_N / 12$$

where D_N: The thickness of the slab to be used in mm.

(3) Waterproofing of joints using tapes of HYDROFOIL PVC type

For width B_N of a tape to be used greater than the width of the contractual tape described in this Price List (240mm), the length of the tape to be used shall be converted into the length of the 240mm-wide contractual tape, based on the following ratio:

$$B_N / 240$$

where B_N: The width of the tape to be used in mm

A practice similar to the above can apply to other items of this Price List as well.

The unit prices of this Price List marked with an asterisk [*] next to the indicated price in EURO <u>do not include</u> the cost for the net transportation of materials or spoils, on a per case basis.

The Tendering Authority shall add to these prices the cost of the transportation work on the basis of the design data and the conditions of the Project execution.

In order to determine the aforementioned cost for the transportation work, the following unit prices are specified per €/m^3.km

In urban areas	
- distance < 5 km	**0.28**
- distance ≥ 5 km	**0.21**
Outside the city	
· ***easily accessible roads***	
- distance < 5 km	**0.20**
- distance ≥ 5 km	**0.19**
· ***poor accessibility roads***	
- distance < 5 km	**0.25**
- distance ≥ 5 km	**0.21**
· ***worksite roads***	
- distance < 3 km	**0.22**
- distance ≥ 3 km	**0.20**
Additional price for prolonged waiting time for loading-unloading (asphalt works, excavation of foundations and ditches, small-scale excavations)	**0.03**

These prices are applicable to the determination of the price marked with an asterisk [*] of the items of the subject Price List, whose works are calculated in cubic meters (m^3), according to the method specified in each item.

In no case shall the bulking factor or any other increase apply, and the calculations are made on the basis of the measured m^3 of each work, as specified in the respective item.

The transportation cost, as set in the subject Price List (NET ΟΔΟ), is added to the base price of the items marked with an asterisk [*], and is revised on the basis of the revision code specified each time (no provision is made for any other special revision of the transportation).

GROUP A:

EARTHWORKS, WORKS FOR ADDRESSING WATER, RETAINING WORKS, GREEN RELATED WORKS, ROAD – PAVING WORKS, ASPHALT WORKS, SIGNAGE – SAFETY

LOADING / UNLOADING

AT: 001	**Loading / unloading of excavation materials from earthy or semi-rock soil and sand-gravels** Item ΝΕΤ ΥΔΡ 2.01 (Revised per item ΥΔΡ 6071)

Loading / unloading of excavation spoils from earthy or semi-rock soil and sand-gravel, including vehicle's idleness.

This item is applicable only if loading / unloading is effected regardless of the excavation activities or the production of sand-gravels in the framework of the contracting work and on condition that this is foreseen by the design of the project.

Measurement in cubic meters (m^3) of the volume of the trench or of the condensed embankment,

Price per cubic meter (m^3).

Euro In full: Thirty three cents
In numbers: 0.33

AT: 002	**Loading / Unloading of rocky materials or of dismantled reinforced or non-reinforced concrete** Item Άρθρο ΝΕΤ ΥΔΡ 2.02 (Revised per item ΥΔΡ 6072)

Loading / Unloading of rocky materials or of dismantled reinforced or non-reinforced concrete, including vehicle's idleness.

This item is applicable only if loading / unloading is effected regardless of the excavation activities or the dismantling of the concrete structures in the framework of the contracting work and on condition that this is foreseen by the design of the project.

Measurement in cubic meters (m^3) of the volume of the trench or of the condensed embankment or of the dismantled structure (on a per case basis),

Price per cubic meter (m^3).

Euro In full: Thirty eight cents
In numbers: 0.38

EXCAVATIONS

Trench excavations for utility networks in earthy or semi-rocky soil

Trench excavations for utility networks in earthy or semi-rocky soil, including the excavations of any existing asphalt layers and any type of slab-paving in residential areas or in road axes – wide and length-wise - under traffic conditions, using any method (mechanical means with or without manual assistance) either in dry conditions or in ground water conditions (at a level which is either at rest or is lowered using pumping methods), according to the design and ETEP 08-01-03-01 "Trench excavations for utility networks".

The asphalt layers or the existing concrete layers shall be necessarily cut by the use of an asphalt cutter and the relevant work is included in the unit price of the item.

The utilization of pumps is not compensated separately, during the excavation and during the execution of the works within the trench and up to their completion, unless otherwise provided for in the design.

The unit price includes the following:

- The repair of any damage to neighboring structures or to the road pavement due to subsidence of the trench's slopes.
- The dismantling of the road pavement, of curbs, any type of slab paving and non-reinforced cement paving at the trench's location.
- The required bridging of the trench in view of securing citizens' and vehicles' circulation and facilitating the operation of neighboring properties (placing of sheets of the appropriate width, etc.).

The price includes the placement of randomized retaining systems (if required) on the trench's slopes, the configuration of the slopes and the bottom of the trench at the required cross-sections in such a way so as to be feasible to utilize formworks for laying concrete or for removing the excavation spoils, depending on the excavation method and means, as well as the configuration of the necessary work floors. Finally, the price also includes all kinds of side transportations (either horizontal or vertical).

Randomized retaining systems means those systems whose length does not exceed 2,00 m in total per 20.0 m of the axial length of the trench. Special retaining systems are measured separately in the entire surface they apply, in line with the provisions of the design.

The excavations are measured per depth zone (up to 4.00 m, from 4.01 up to 6,00m., etc.); for each zone, applicable is the price indicated in this item, depending on the width of the trench and the management of the excavation spoils.

It is stressed that the dismantling of structures or elements made of non-reinforced or reinforced concrete in the gauge of the trench are measured separately on the basis of the pertinent items of the price list.

Price per cubic meter (m^3) of the trench, on the basis of the payment lines determined in the design, depending on the width of the bottom, the depth of the trench and the management of the excavation spoils.

AT: 003	**Bottom width up to 3.00 m, side disposal of the excavation spoils. For trench depth up to 4.00 m** Item NET ΥΔΡ N-3.10.01.01 (Revised per item ΥΔΡ 6081.1)

Euro In full: Six and twenty cents
In numbers: 6.20

AT: 004	**Bottom width up to 3.00 m, side disposal of the excavation spoils. For trench depth from 4.01 up to 6.00 m** Item NET ΥΔΡ N-3.10.01.02 (Revised per item ΥΔΡ 6081.2)

Euro In full: Nine
In numbers: 9.00

AT: 005	**Bottom width up to 3.00 m, side disposal of the excavation spoils. For trench depth from 6.01 up to 8.00 m** Item NET ΥΔΡ N-3.10.01.03 (Revised per item ΥΔΡ 6081.3)

Euro In full: Eleven and ninety cents
In numbers: 11.90

AT: 006	**Bottom width up to 3.00 m, side disposal of the excavation spoils. For trench depth from 8.01 up to 10.00 m** Άρθρο NET ΥΔΡ N-3.10.01.04 (Αναθεωρείται με το άρθρο ΥΔΡ 6081.4)

Euro In full: Fifteen and twenty cents
In numbers: 15.20

AT: 007	**Bottom width up to 3.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance For trench depth up to 4.00 m** Item NET ΥΔΡ N-3.10.02.01 (Revised per item ΥΔΡ 6081.1)

Euro In full: Fifteen and twenty cents
In numbers: 6.90 [*]

AT: 008	**Bottom width up to 3.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.02.01 (Revised per item ΥΔΡ 6081.1)

Euro In full: Ten cents
In numbers: 10.00 [*]

AT: 009	**Bottom width up to 3.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 6.01 up to 8.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.02.03 (Revised per item ΥΔΡ 6081.3)

Euro In full: Thirteen and thirty cents
In numbers: 13.30 [*]

AT: 010	**Bottom width up to 3.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 8.01 up to 10.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.02.04 (Revised per item ΥΔΡ 6081.4)

Euro In full: Sixteen and sixty cents
In numbers: 16.60 [*]

AT: 011	**Bottom width from 3.01 up to 5.00 m, side disposal of the excavation spoil** **For trench depth up to 4.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.03.01 (Revised per item ΥΔΡ 6083.1)

Euro In full: Four and thirty cents
In numbers: 4.30

AT: 012	**Bottom width from 3.01 up to 5.00 m, side disposal of the excavation spoil** **For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.03.02 (Revised per item ΥΔΡ 6083.2)

Euro In full: Six and seventy cents
In numbers: 6.70

AT: 013	**Bottom width from 3.01 up to 5.00 m, side disposal of the excavation spoil For trench depth from 6.01 up to 8.00 m** Item NET ΥΔΡ N-3.10.03.03 (Revised per item ΥΔΡ 6083.3)

Euro In full: Nine
In numbers: 9.00

AT: 014	**Bottom width from 3.01 up to 5.00 m, side disposal of the excavation spoil For trench depth from 8.01 up to 10.00 m** Item NET ΥΔΡ N-3.10.03.04 (Revised per item ΥΔΡ 6083.4)

Euro In full: Ten and ninety cents
In numbers: 10.90

AT: 015	**Bottom width from 3.01 up to 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance For trench depth up to 4.00 m** Item NET ΥΔΡ N-3.10.04.01 (Revised per item ΥΔΡ 6083.1)

Euro In full: Four and fifty cents
In numbers: 4.50 [*]

AT: 016	**Bottom width from 3.01 up to 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance For trench depth from 4.01 up to 6.00 m** Item NET ΥΔΡ N-3.10.04.02 (Revised per item ΥΔΡ 6083.2)

Euro In full: Seven and ten cents
In numbers: 7.10 [*]

AT: 017	**Bottom width from 3.01 up to 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance For trench depth from 6.01 up to 8.00 m** ItemNET ΥΔΡ N-3.10.04.03 (Revised per item ΥΔΡ 6083.3)

Euro In full: Ten
In numbers: 10.00 [*]

AT: 018	**Bottom width from 3.01 up to 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 8.01 up to 10.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.04.04 (Revised per item ΥΔΡ 6083.4)

Euro In full: Twelve and forty cents
In numbers: 12.40 [*]

AT: 019	**Bottom width over 5.00 m, side disposal of the excavation spoil** **For trench depth up to 4.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.05.01 (Revised per item ΥΔΡ 6085.1)

Euro In full: Two and fifty cents
In numbers: 2.50

AT: 020	**Bottom width over 5.00 m, side disposal of the excavation spoil** **For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.05.02 (Revised per item ΥΔΡ 6085.2)

Euro In full: Four and thirty cents
In numbers: 4.30

AT: 021	**Bottom width over 5.00 m, side disposal of the excavation spoil** **For trench depth from 6.01 up to 8.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.05.03 (Revised per item ΥΔΡ 6085.3)

Euro In full: Six and twenty cents
In numbers: 6.20

AT: 022	**Bottom width over 5.00 m, side disposal of the excavation spoil** **For trench depth from 8.01 up to 10.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.05.04 (Revised per item ΥΔΡ 6085.4)

Euro In full: Seven and ninety cents
In numbers: 7.90

AT: 023	**Bottom width over 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance For trench depth up to 4.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.06.01 (Revised per item ΥΔΡ 6085.1)

Euro In full: Two and seventy cents
In numbers: 2.70 [*]

AT: 024	**Bottom width over 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.06.02 (Revised per item ΥΔΡ 6085.2)

Euro In full: Four and sixty cents
In numbers: 4.60 [*]

AT: 025	**Bottom width over 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance For trench depth from 6.01 up to 8.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.06.03 (Revised per item ΥΔΡ 6085.3)

Euro In full: Six and fifty cents
In numbers: 6.50 [*]

AT: 026	**Bottom width over 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance For trench depth from 8.01 up to 10.00 m** Item ΝΕΤ ΥΔΡ Ν-3.10.06.04 (Revised per item ΥΔΡ 6085.4)

Euro In full: Eight and sixty cents
In numbers: 8.60 [*]

Trench excavations for utility networks in rocky soil

Trench excavations for utility networks in rocky soil of any type, including solid granite and cemented conglomerate formations, in residential areas or in road axes – width- and length-wise - under traffic conditions, using drilling equipment (hydraulic hammer or air hammer), using intumescent materials for mild explosives (of Bristar type or equivalent) and/or limited utilization of explosives (application of charge of detonating explosive and use of metal sheets for

protection against fragments), in case this is allowed by the competent authorities, either in dry conditions or in ground water conditions (at a level which is either at rest or is lowered using pumping methods), according to the design and ETEP 08-01-03-01 "Trench excavations for utility networks".

The asphalt layers or the existing concrete layers shall be necessarily cut by the use of a joint cutter.

The utilization of pumps is not compensated separately, during the excavation and during the execution of the works within the trench and up to their completion, unless otherwise provided for in the design.

The unit price includes the following:

- The repair of any damage to neighboring structures or to the road pavement due to subsidence of the trench's slopes.
- The dismantling of the road pavement, of curbs, any type of slab paving and non-reinforced cement paving at the trench's location.
- The required bridging of the trench in view of securing citizens' and vehicles' circulation and facilitating the operation of neighboring properties (placing of sheets of the appropriate width, etc.).

The price includes the placement of randomized retaining systems (if required) on the trench's slopes, the configuration of the slopes and the bottom of the trench at the required cross-sections in such a way so as to be feasible to utilize formworks for laying concrete or for removing the excavation spoils, depending on the excavation method and means, as well as the configuration of the necessary work floors. Finally, the price also includes all kinds of side transportations (either horizontal or vertical).

Randomized retaining systems means those systems whose length does not exceed 2,00 m in total per 20.0 m of the axial length of the trench. Special retaining systems are measured separately in the entire surface they apply, in line with the provisions of the design.

The excavations are measured per depth zone (up to 4.00 m, from 4.01 up to 6,00m., etc.); for each zone, applicable is the price indicated in this item, depending on the width of the trench and the management of the excavation spoils.

It is stressed that the dismantling of structures or elements made of non-reinforced or reinforced concrete in the gauge of the trench are measured separately on the basis of the pertinent items of the price list.

Price per cubic meter (m^3) of the trench, on the basis of the payment lines determined in the design, depending on the width of the bottom, the depth of the trench and the management of the excavation spoils.

AT: 027	**Bottom width up to 3.00 m, side disposal of the excavation spoil** **For trench depth up to 4.00 m** Άρθρο ΝΕΤ ΥΔΡ 3.11.01.01 (Αναθεωρείται με το άρθρο ΥΔΡ 6082.1)

Euro In full: Twenty three and eighty cents

In numbers: 23.80

AT: 028	**Bottom width up to 3.00 m, side disposal of the excavation spoil** **For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ 3.11.01.02 (Revised per item ΥΔΡ 6082.2)

Euro In full: Twenty six and ten cents
In numbers: 26.10

AT: 029	**Bottom width up to 3.00 m, side disposal of the excavation spoil** **For trench depth from 6.01 έως 8.00 m** Item ΝΕΤ ΥΔΡ 3.11.01.03 (Revised per item ΥΔΡ 6082.3)

Euro In full: Twenty eight and fifty cents
In numbers: 28.50

AT: 030	**Bottom width up to 3.00 m, side disposal of the excavation spoil** **For trench depth from 8.01 έως 10.00 m** Item ΝΕΤ ΥΔΡ 3.11.01.04 (Revised per item ΥΔΡ 6082.4)

Euro In full: Thirty and ninety cents
In numbers: 30.90

AT: 031	**Bottom width up to 3.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth up to 4.00 m** Item ΝΕΤ ΥΔΡ 3.11.02.01 (Revised per item ΥΔΡ 6082.1)

Euro In full: Twenty four and twenty cents
In numbers: 24.20 [*]

AT: 032	**Bottom width up to 3.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ 3.11.02.02 (Revised per item ΥΔΡ 6082.2)

Euro In full: Twenty six and sixty cents
In numbers: 26.60 [*]

AT: 033	**Bottom width up to 3.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 6.01 up to 8.00 m** Item ΝΕΤ ΥΔΡ 3.11.02.03 (Revised per item ΥΔΡ 6082.3)

Euro In full: Twenty nine
In numbers: 29.00 [*]

AT: 034	**Bottom width up to 3.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 8.01 up to 10.00 m** Item ΝΕΤ ΥΔΡ 3.11.02.04 (Revised per item ΥΔΡ 6082.4)

Euro In full: Thirty one and forty cents
In numbers: 31.40 [*]

AT: 035	**Bottom width from 3.01 up to 5.00 m, side disposal of the excavation spoil** **For trench depth up to 4.00 m** Item ΝΕΤ ΥΔΡ 3.11.03.01 (Revised per item ΥΔΡ 6084.1)

Euro In full: Nineteen
In numbers: 19.00

AT: 036	**Bottom width from 3.01 up to 5.00 m, side disposal of the excavation spoil** **For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ 3.11.03.02 (Revised per item ΥΔΡ 6084.2)

Euro In full: Twenty and ninety cents
In numbers: 20.90

AT: 037	**Bottom width from 3.01 up to 5.00 m, side disposal of the excavation spoil** **For trench depth from 6.01 up to 8.00 m** Item ΝΕΤ ΥΔΡ 3.11.03.03 (Revised per item ΥΔΡ 6084.3)

Euro In full: Twenty two and eighty cents
In numbers: 22.80

AT: 038	**Bottom width from 3.01 up to 5.00 m, side disposal of the excavation spoil** **For trench depth from 8.01 up to 10.00 m** Item ΝΕΤ ΥΔΡ 3.11.03.04 (Revised per item ΥΔΡ 6084.4)

Euro In full: Twenty four and seventy cents
In numbers: 24.70

AT: 039	**Bottom width from 3.01 up to 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth up to 4.00 m** Item ΝΕΤ ΥΔΡ 3.11.04.01 (Revised per item ΥΔΡ 6084.1)

Euro In full: Nineteen and fifty cents
In numbers: 19.50 [*]

AT: 040	**Bottom width from 3.01 up to 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ 3.11.04.02 (Revised per item ΥΔΡ 6084.2)

Euro In full: Twenty one and forty cents
In numbers: 21.40 [*]

AT: 041	**Bottom width from 3.01 up to 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 6.01 up to 8.00 m** Item ΝΕΤ ΥΔΡ 3.11.04.03 (Revised per item ΥΔΡ 6084.3)

Euro In full: Twenty three and thirty cents
In numbers: 23.30 [*]

AT: 042	**Bottom width from 3.01 up to 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 8.01 up to 10.00 m** Item ΝΕΤ ΥΔΡ 3.11.04.04 (Revised per item ΥΔΡ 6084.4)

Euro In full: Twenty five and twenty cents
In numbers: 25.20 [*]

AT: 043	**Bottom width over 5.00 m, side disposal of excavation spoil** **For trench depth up to 4.00 m** Item NET ΥΔΡ 3.11.05.01 (Revised per item ΥΔΡ 6086.1)

Euro In full: Eleven and forty cents
In numbers: 11.40

AT: 044	**Bottom width over 5.00 m, side disposal of excavation spoil** **For trench depth from 4.01 up to 6.00 m** Item NET ΥΔΡ 3.11.05.02 (Revised per item ΥΔΡ 6086.2)

Euro In full: Twelve and eighty cents
In numbers: 12.80

AT: 045	**Bottom width over 5.00 m, side disposal of excavation spoil** **For trench depth from 6.01 up to 8.00 m** Item NET ΥΔΡ 3.11.05.03 (Revised per item ΥΔΡ 6086.3)

Euro In full: Fourteen and thirty cents
In numbers: 14.30

AT: 046	**Bottom width over 5.00 m, side disposal of excavation spoil** **For trench depth from 8.01 up to 10.00 m** Item NET ΥΔΡ 3.11.05.04 (Revised per item ΥΔΡ 6086.4)

Euro In full: Fifteen and seventy cents
In numbers: 15.70

AT: 047	**Bottom width over 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth up to 4.00 m** Item NET ΥΔΡ 3.11.06.01 (Revised per item ΥΔΡ 6086.1)

Euro In full: Eleven and ninety cents
In numbers: 11.90 [*]

AT: 048	**Bottom width over 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 4.01 up to 6.00 m** Item ΝΕΤ ΥΔΡ 3.11.06.02 (Revised per item ΥΔΡ 6086.2)

Euro In full: Thirteen and thirty cents
In numbers: 13.30 [*]

AT: 049	**Bottom width over 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 6.01 up to 8.00 m** Item ΝΕΤ ΥΔΡ 3.11.06.03 (Revised per item ΥΔΡ 6086.3)

Euro In full: Fourteen and seventy cents
In numbers: 14.70 [*]

AT: 050	**Bottom width over 5.00 m, loading the excavation spoil to a vehicle, vehicle's idleness and transportation at any distance** **For trench depth from 8.01 up to 10.00m** Item ΝΕΤ ΥΔΡ 3.11.06.04 (Revised per item ΥΔΡ 6086.4)

Euro In full: Sixteen and twenty cents
In numbers: 16.20 [*]

AT: 051	**Increase in the prices pertaining to trench excavations for utility networks in order to address additional difficulties due to PUO networks passing alongside the trench** Item ΝΕΤ ΥΔΡ 3.12 (Revised per item ΥΔΡ 6087)

Additional price paid due to difficult excavation conditions, in any soil, underneath Companies / Public Utility Organizations local networks, either supported / retained or not, per linear meter of the duct encountered alongside the trench.

"Duct within the trench" means the duct which is within the subject trench per the greatest section of its cross-section (over 50%). More than one ducts integrated in a hypothetical cylinder, whose axis is the axis of the largest duct and whose diameter is 1.00m., are assumed to be one duct. If there are other ducts outside the aforesaid cylinder, then this price is paid once more.

This item does not include any required works for supporting, retaining or propping the network. These works will be executed on a per case basis, according to the approved design and/or in line with the instruction of the responsible PUOs and will be measured per the applicable items of the Price List.

Price per linear meter of the encountered duct that causes difficulties in the excavation activities.

Euro In full: Fourteen and thirty cents
In numbers: 14.30

AT: 052	**Increase in the prices pertaining to trench excavations for utility networks in any type of soil for the execution of works under space constraints** Item ΝΕΤ ΥΔΡ 3.13 (Revised per ΥΔΡ 6081.1)

Increase in the prices pertaining to trench excavations for utility networks in any type of soil for the execution of works under space constraints, i.e. when works must necessarily be executed on the sidewalk or on the edge of the road (lay-by), without occupying the road pavement, either manually, using air hammers, or with the assistance of mini excavators - up to 1.50m. wide, with a bucket capacity up to 0.25 m^3 - and the utilization of mechanical equipment of larger size is not feasible.

This item applies to trenches, whose bottom width is up to 1.00 m. and their depth up to 4.00m., after complete documentation in the design of the project of the necessity to apply the subject methodology.

Price per cubic meter (m^3) of the trench.

Euro In full: Three and eighty cents
In numbers: 3.80

Application of vibroflotation techniques for trenchless network passage

Application of vibroflotation techniques for trenchless passage of networks in soils lending themselves to such techniques, excluding the price of the pipes (pipe jacking technique), in line with the design and ETEP 08-01-04-01 "Trenchless utilities installation with soil displacement methods".

The price includes the delivery on site and installation of the special thrust equipment together with its drive devices (generators, hydraulic pumps, etc.), as well as its dismantling and collection after the completion of the network piping works.

The works related to the construction of the access shafts are measured separately based on the pertinent items of the Price List.

Measurement in linear meters (mm) of networks installed using this methodology, between the network start and terminal nodes. Installed pipes are separately measured based on the pertinent items of the Price List.

ΑΤ: 053	**Application of vibroflotation techniques for trenchless network passage Boring of an Φ 200 mm hole** Item NET ΥΔΡ 3.14.01 (Revised per item ΥΔΡ 6082.1)

EURO In full: Seventy six
In numbers: 76.00

ΑΤ: 054	**Application of vibroflotation techniques for trenchless network passage Boring of an Φ 250 mm hole** Item NET ΥΔΡ 3.14.02 (Revised per item ΥΔΡ 6082.1)

EURO In full: Ninety five
In numbers: 95.00

ΑΤ: 055	**Application of vibroflotation techniques for trenchless network passage Boring of an Φ 400 mm hole** Item NET ΥΔΡ 3.14.03 (Revised per item ΥΔΡ 6082.1)

EURO In full: One hundred and forty three
In numbers: 143.00

ΑΤ: 056	**Excavation spoil laying** Item NET ΥΔΡ 3.16 (Revised per item ΥΔΡ 6070)

Laying of the earthy or semi-rocky excavation spoil transferred to the disposal site, in line with ETEP 02-05-00-00 "Management of excavation materials and exploitation of dumping sites" and the provisions of the environmental terms of the project.

Placing the material transferred in layers, proceeding with a light compaction through several applications of the machinery intended for the laying of the excavation spoil and excavation of trenches for stormwater channelling to the dumping site.

Measurement based on the acceptable quantities of excavation works, in line with the pertinent items of the Price List.
Price per cubic meter (m^3).

EURO In full: Nineteen cents
In numbers: 0.19

AT: 057	**Excavation of foundations for technical structures in earthy, semi-rocky soil** Item ΝΕΤ ΥΔΡ 3.17 (Revised per item ΥΔΡ 6054)

Excavation of foundations for technical structures in earthy, semi-rocky soil without the use of a percussion machine (i.e. using a hydraulic hammer, an air hammer, etc.) and transportation of the excavation spoil at any distance, in line with the provisions of the design and ETEP 02-04-00-00 "Excavations for foundation works".

The price includes any required water pumping works, if the level of water at rest is up to 30 cm above the level of the bottom of the trench (otherwise, separate measurement is required), as well as any required randomised retaining work.

Randomised retaining work means any retaining work not extending over 2.00 m^2 per 20.0 m^2 of trench slopes.

Measurement in line with the theoretical design cross-section (any eventual over-excavation is not taken into consideration).

Price per cubic meter (m^3), as per the above.

EURO In full: One and ninety cents
In numbers: 1.90 [*]

AT: 058	**Excavation of foundations for technical structures in rocky soil Without the use of explosives (only percussion machine)** Item ΝΕΤ ΥΔΡ 3.18.01 (Revised by item ΥΔΡ 6055)

Excavation of foundations for technical structures in soil necessitating the use of a percussion machine (i.e. using an air hammer, a hydraulic hammer, etc.) and/or the use of explosives, in line with the provisions of the design and ETEP 02-04-00-00 "Excavations for foundation works".

The price also includes loading the excavation spoil to a vehicle, transportation at any distance as well as any required randomized retaining work.

Randomized retaining work means any retaining work not extending over 2.00 m^2 per 20.0 m^2 of trench slopes.

Measurement in line with the theoretical design cross-section (any eventual over-excavation is not taken into consideration).

Price per cubic meter (m^3), as per the above

EURO In full: Twenty three and eighty cents
In numbers: 23.80

AT: 059	**Individual excavations (monoblock concrete walls)** Item NET ΟΙΚ 20.07 (Revised per item ΟΙΚ-2135.1)

Individual excavations (monoblock concrete walls) executed in contact with existing structures or at the boundaries of the street, on earthy, semi-rock and rock ground, up to 2.00 m wide and at any depth, in accordance with the design and ETEP 02-04-00-00 "Excavations for foundation works".

Price per cubic meter (m^3) on the trench, transportation of excavation spoil at any distance. Measurement with cross-section readings before and after the excavation.

EURO In full: Twenty
In numbers: 20.00 **[*]**

DEMOLITIONS - DISMANTLING – RELOCATIONS

AT: 060	**Dismantling of structures with reinforced concrete bearing elements (up to 4.0m high)** Item NET ΟΔΟ Α-5.1 (Revised by item ΟΙΚ-2227)

Demolition of single-storey or multi-storey structures with reinforced concrete bearing elements (slabs, beams, walls etc.) or with bearing brick/stone masonry and reinforced concrete slabs, after loading/unloading and transportation of the debris for disposal at any distance, including any type of abandoned equipment, either inside the structures or at their extensions.

The unit price includes:

- Delivery-removal and use of the required equipment
- Dismantling and cutting of slabs, beams, walls and columns made of reinforced concrete, stone/brick masonry, roofs, foundations made of reinforced concrete, of the main structure and any other supplementary structures, such as exterior stairs, as well as any other abandoned equipment found either inside the structures or at their extensions etc.,
- Re-backfilling and compaction of the trenches due to demolitions
- Loading/unloading, transportation of excavation spoils and dumping at sites licensed by the responsible Authorities at any distance
- Idle vehicles, machinery etc.
- Cleaning of the area from any material up to the level of the natural or configured soil surface
- Introduction of health and safety measures.

Measurement on the basis of the exterior volume of the structure before demolition, which is defined by its outline, without calculating cantilevers and patios. The height of the structure is defined as the distance of the upper surface of the roof from the natural or configured soil surface and, as for the rest, in accordance with ETEP 02-01-01-00.

Price per cubic meter

EURO In full: Fifteen and eighty cents
In numbers: 15.80 **[*]**

AT: 061	**Dismantling of brick-made structures etc.** Item ΝΕΤ ΟΔΟ Α-6 (Revised per item ΟΙΚ-2221)

Demolition of structures, tile-covered roofs etc., made of brick/stone masonry or other materials, without bearing elements made of reinforced concrete, along with loading/unloading and transportation of excavation spoil at any distance for dumping, including any kind of abandoned equipment found inside the structures or at their extensions.

The unit price includes the following:

- Delivery-removal and use of the required equipment
- Dismantling of foundations made of reinforced concrete, as well as any other type of abandoned equipment found either inside the structures or at their extensions etc.
- Re-backfilling and compaction of the trenches due to demolitions
- Loading/unloading, transportation of excavation spoils and dumping at sites licensed by the responsible Authorities at any distance
- Idle vehicles, machinery etc.
- Cleaning of the area from any material up to the level of the natural or configured soil surface
- Introduction of health and safety measures.

Measurement on the basis of the volume of the structure before demolition, which is defined by its outline, without calculating cantilevers and patios. The height of the structure is defined as the distance of the upper surface of the roof from the natural or configured soil surface and, as for the rest, in accordance with ETEP 02-01-01-00.

Price per cubic meter of a completely demolished structure, after transportation at any distance.

EURO In full: ten and ninety cents
In numbers: 10.90 **[*]**

AT: 062	**Dismantling of structures made of steel** Item ΝΕΤ ΟΔΟ Α-7 (Revised per item ΟΙΚ-2275)

Demolition of structures made of steel, consisting of steel cross section trusses and vertical bearing elements made of steel or reinforced concrete, panel-made or brick masonry or masonry made of other structural materials, sheds made of corrugated steel or roof tiles and floor made of concrete or other materials, along with loading/unloading and transportation of excavation spoils for disposal at any distance, including any kind of abandoned equipment either inside the structures or at their extensions.

The unit price includes:

- Delivery-removal and use of the required equipment
- Dismantling of metallic trusses and all other elements of the structure, such as foundation flooring made of reinforced concrete, as well as any type of abandoned equipment located either inside the structures or at their extensions etc.
- Separating the longitudinal metallic elements from the other debris
- Re-backfilling and compaction of trenches due to demolitions
- Loading-unloading, transportation of excavation spoils and dumping at sites licensed by the responsible Authorities at any distance
- Idle vehicles, machinery etc.
- Cleaning of the area from any material up to the level of the natural or configured soil surface
- Introduction of health and safety measures.

Measurement on the basis of the actual volume of the structure before demolition, which is defined by its outline, without calculating cantilevers and patios. The height if the structure is defined as the distance of the lower surface of the roof from the natural or configured soil surface and, as for the rest, in accordance with ETEP 02-01-01-00.

Price per cubic meter

EURO In full: Seven and seventy cents
In numbers: 7.70 **[*]**

AT: 063	**Dismantling of metal sheet structures with wooden frame** Item NET ΟΔΟ Α-8 (Revised per item ΟΙΚ-2275)

Demolition of structures with wooden bearing structure, filling materials made of profiled corrugated steel and flooring made of concrete or other materials, as well as loading/unloading and transportation of debris at any distance for dumping, including any type of abandoned equipment, either inside the structures, or at their extensions.

The unit price includes:

- Dismantling and cutting of the wooden bearing structure, the filling materials and the flooring, as well as any type of abandoned equipment either inside the structures or at their extensions etc.
- Loading/unloading, transportation of debris and dumping at sites licensed by the responsible Authorities at any distance,
- Idle vehicles, machinery etc.,
- Cleaning of the area from any material up to the level of the natural or configured soil surface,
- Delivery-removal and use of the required equipment,
- Introduction of health and safety measures.

Measurement on the basis of the volume of the structure before demolition, which is defined by its outline, without calculating cantilevers and patios. The height of the structure is defined as the distance of the upper surface of the roof from the natural or configured soil surface and, as for the rest, in accordance with ETEP 02-01-01-00.

Price per cubic meter.

EURO In full: Five and forty cents
In numbers: 5.40 **[*]**

AT: 064	**Dismantling of compact fencing** Item ΝΕΤ ΟΔΟ Α-9 (Revised per item ΟΙΚ-2227)

Dismantling of compact fencing made of reinforced or non-reinforced concrete, or clay-stone or other materials, irrespective of their thickness and height from the natural soil, as well as transportation of excavation spoil at any distance for dumping.

The unit price includes:

- Dismantling and cutting of the compact fencing, superstructure and foundations
- Re-backfilling and compaction of trenches due to demolitions
- Loading/unloading and transportation of all excavated materials for dumping at sites licensed by the responsible Authorities at any distance
- Any temporary disposals and re-loading, idle vehicles-machinery etc., cleaning of the area from any materials up to the natural soil level, delivery-removal and use of the necessary equipment and cost for health and safety measures.

Price per linear meter.

EURO In full: Fifteen and eighty cents
In numbers: 15.80

AT: 0656	**Dismantling of chain link fencing** Item ΝΕΤ ΟΔΟ Α-10 (Revised per item ΟΙΚ-6448)

Dismantling of chain link fencing and piles made of any material, either on the soil or on concrete wall, masonry etc., irrespective of the height, along with loading/unloading and transportation of debris at any distance for dumping.

The unit price includes:

- Cost for dismantling and cutting of the wall (made of any material) and the fencing
- Cost for re-backfilling and compaction of trenches due to demolitions
- Cost for loading/unloading and transportation of all debris to be dumped at sites licensed by the responsible Authorities at any distance
- Cost for any temporary dumping and re-loading, or idle vehicles-machinery etc.
- Cost for cleaning the area from any material up to the natural soil level
- Cost for health and safety measures.

Note that the Contractor shall demolish the fencing in accordance with all safety rules and the relevant Police regulations, and shall assume all relevant responsibilities.

Price per linear meter

EURO In full: Five and forty cents
In numbers: 5.40

ΑΤ: 066	**Dismantling of reinforced concrete** Item ΝΕΤ ΟΔΟ Α-12 (Revised per item ΟΙΚ-2227)

Dismantling of bearing structures, beams, slabs, bases, wing walls, technical works and walls made of reinforced concrete, with or without mechanical means, with transportation of debris at any distance.

The dismantling of reinforced concrete items, collection, removal and disposal of debris to be collected initially at temporary sites and afterwards at sites licensed by the responsible Authorities at any distance are included herein. Dismantling shall be performed with special care so that, if provided for by the design, the remaining part of the structure can be incorporated into the scheduled new one.

The unit price includes:

- Cost for any temporary disposal of debris
- Idle mechanical equipment
- Thorough cleaning of the area from debris.

Note that the price is independent from the location and level where works are executed in relation to the road, and that the Contractor ought to implement the necessary measures in order to avoid clogging of any existing technical elements and trenches on the street in the area where works are under execution. As for the rest, works shall be executed in accordance with the stipulations of ETEP 15-02-01-01.

Price per cubic meter for dismantling reinforced concrete items, measured in volume before dismantling.

EURO In full: Twenty-one and ninety cents
In numbers: 21.90 **[*]**

Dismantling of individual members or sections of structures made of reinforced concrete

Dismantling of sections of structures made of reinforced concrete (without causing any damage to their remaining part), in line with the design and ETEP 15-02-01-01 "Demolition of members of concrete structures by mechanical means", including loading and transportation of the debris at any distance.

All kinds of the required temporary retaining-propping works, cutting of the demolished members, controlling and addressing the dust emitted during the construction of the relevant works and diligent cleaning of the area where works are performed from any debris.

Measurement in cubic meters (m^3) of fully cut members.

AT: 067	**Ordinary precision, use of air-compressors and other conventional means (hydraulic hammer, compressed – air tools, electrical tools, etc.)** Item NET ΥΔΡ 4.01.01 (Revised per item ΥΔΡ 6082.1)

EURO In full: Thirty eight
In numbers: 38.00 [*]

AT: 068	**Particular precision requirements, use of special equipment of undisturbed cut of concrete (wire cutters, disc cutters, thermal lance cutting, water jet cutting)** Item NET ΥΔΡ 4.01.02 (Revised per item ΥΔΡ 6082.1)

EURO In full: Seventy six
In numbers: 76.00 [*]

AT: 069	**Dismantling of sidewalks' slab paving** **Item NET ΥΔΡ** 4.04 (Revised per item ΥΔΡ 6807)

Dismantling of sidewalks' slab paving their sub-base using air hammers, their loading on vehicles and transportation at any distance.
The work will be executed diligently in order to minimize the number of crashed slabs during dismantling.
Non-damaged slabs will be collected and piled at the side of the trench in order to be re-used during the slab paving reinstatement.

The price of the symbol * will be defined based on the contractual assumption that every square meter of the slab paving dismantled there is 0.10 m^3 of debris that have to be transported and be finally disposed, as follows:

[*] = 0.10 m^3 x S x €/m^3.km (see General Terms of the Price List),

where S is the mean distance up to the disposal area, in line with the environmental terms or the relevant approval of the authority concerned.

Price per square meter (m^2)

EURO In full: Eleven and forty cents
In numbers: 11.40 [*]

AT: 070	**Dismantling of curbs, pre-cast or not** Item NET ΥΔΡ 4.05 (Revised per item ΥΔΡ 6808)

Dismantling of sidewalks' curbs using air hammers, their loading on vehicles and transportation at any distance.
The work will be executed diligently in order to minimize the number of crashed curbs during dismantling.
Non-damaged curbs will be collected and piled at the side of the trench in order to be re-used during the sidewalk's reinstatement.

The price of the symbol * will be defined based on the contractual assumption that every square meter of the curbs dismantled there is 0.075 m^3 of debris that have to be transported and be finally disposed, as follows:

[*] = 0.075 m^3 x S x €/m^3.km (see General Terms of the Price List)

where S is the mean distance up to the disposal area, in line with the environmental terms or the relevant approval of the authority concerned.

Price per linear meter (lm)

EURO In full: Three
In numbers: 3.00 [*]

AT: 071	**Dismantling of structures made of non-reinforced concrete** Item NET ΥΔΡ 4.05 (Revised per item ΥΔΡ 6082.1)

Dismantling of structures made of non-reinforced concrete at any location of the project and at any level from surface or the work floor, including all types of the required scaffoldings and retaining systems to secure near-by structures, as well as loading the dismantled items and their transportation at any distance.

Price per cubic meter (m^3) of the actual volume of the dismantled structure, on the basis of detailed measurement.

EURO In full: Nineteen
In numbers: 19.00 [*]

AT: 072	**Dismantling of stonewall or brickwall** Item NET ΥΔΡ 4.05 (Revised per item ΥΔΡ 6081.1)

Dismantling of any type of stonewall or brickwall at any location of the project and at any level from surface or the work floor, using mechanical equipment, with or without manual assistance, including all types of the required scaffoldings and retaining systems to secure near-by structures, as well as loading the dismantled items and their transportation at any distance.

The price includes collecting the dismantled items in the loading area, the selection of those items that could be utilized anew in several structures (if foreseen by the design) and their loading and transportation at any distance, to be finally disposed or utilized.

Price per cubic meter (m^3) of the actual volume of the dismantled structure, on the basis of detailed measurement.

EURO In full: Ten and fifty cents
In numbers: 10.50 [*]

AT: 073	**Dismantling of metallic balustrades** Item NET OIK 22.65.02 (Revised per item OIK-2275)

Dismantling of balustrades of any design and dimensions, bulking of useless materials for loading, as well as classification and storage of useful materials.

Price per kilogram (kg) of dismantled items on the basis of the weight note.

EURO In full: Thirty cents
In numbers: 0.30

AT: 074	**Careful dismantling of OASA and/or ILPAP stops, whose relocation is imposed due to the Project needs** Item NET OIK N.22.56.1 (Revised per item OIK - 2275)

Careful dismantling of OASA and/or ILPAP stops whose relocation is imposed due to the Project needs, including the respective ticket selling facilities and their appurtenances, and their re-positioning at new locations, i.e. dismantling and re-installation, storage within the worksite and transportation to a new installation location, as well as all types of materials for their re-positioning.

Lump Sum Price for all works concerning OASA and/or ILPAP stops whose relocation is imposed due to the Project needs, including the respective ticket selling facilities and their appurtenances, as well as their re-positioning at new locations.

EURO In full: One thousand sixty five and sixty three cents
In numbers: 1,065.63

AT: 075	**Careful dismantling of Kiosks, whose relocation is imposed due to the Project needs** Item NET OIK N.22.56.2 (Revised per item OIK -2275)

Dismantling with due attention of kiosks, whose relocation is imposed due to the Project needs, including the kiosks ancillary structures / facilities and their re-positioning at new locations. More specifically, works concern dismantling and re-positioning of kiosks, safe-guarding same within the worksite area and their transportation to the new location; materials and minor materials for their re-positioning are also included herein.

Lump Sum Price (LSP) for the overall works concerning the kiosks whose relocation is imposed due to the Project needs, including the kiosks ancillary structures / facilities and their re-positioning at new locations.

EURO In full: One thousand one hundred and twenty five and twenty five cents
In numbers: 1,127.27

AT: 076	**Dismantling, transportation, temporary storage and safe-keeping within the worksite area of cast-iron gratings intended to protect holes for trees, until their re-positioning and delivery to AM** Item NET ΟΙΚ N.22.56.3 (Revised per item ΟΙΚ -2275)

Dismantling, transportation, temporary storage and safe-keeping within the worksite area of cast-iron gratings intended to protect holes for trees, until their re-positioning and delivery to AM.

Price per piece (pc)

EURO In full: One thousand one hundred and twenty five and twenty cents
In numbers: 1,127.20

WORKS FOR ADDRESSING WATER

Operation of worksite pumping stations

Operation of portable or movable worksite pumping stations for the drainage of inflowing or ground water and the pumping of wastewater and sludge during the execution of the project works, if foreseen by the design or further to the written instruction of the Service and as to the remaining items, in line with ETEP 08-10-01-00 "Work-site water pumping" and ETEP 08-10-02-00 "Wastewater and sludge pumping".

The unit price includes:

a. Delivery on site the project of a pumping station of the appropriate power supply suitable for the manometric head and the power supply required, as well as delivery of the respective piping, devices and fittings
b. Fuel or electric power expenses
c. Installation, operation supervision, fuelling and maintenance of the pump and the piping
d. Excavation of a temporary trench for pumped water discharge to an existing recipient
e. Transportation of the pump and the pipings in line with the work execution schedule
f. Idleness of the pumping station for any reason whatsoever

Price per hour (h) of pumping station operation further to the approval of the Service, on the basis of analytical recorded data of the operation period, as follows:

AT: 077	**Diesel or gas-driven pumping stations** **Power: up to 1.0 HP** Item NET ΥΔΡ 6.01.01.01 (Revised by item ΥΔΡ 6106)

EURO In full: Three and forty cents
In numbers: 3.40

AT: 078	**Diesel or gas-driven pumping stations** **Power: 1.0 to 2.0 HP** Item NET ΥΔΡ 6.01.01.02 (Revised by item ΥΔΡ 6107)

EURO In full: Four and thirty cents
In numbers: 4.30

AT: 079	**Diesel or gas-driven pumping stations** **Power: 2.0 to 5.0 HP** Item NET ΥΔΡ 6.01.01.03 (Revised by item ΥΔΡ 6108)

EURO In full: Five and ten cents
In numbers: 5.10

AT: 080	**Diesel or gas-driven pumping stations** **Power: 5.0 to 10.0 HP** Item NET ΥΔΡ 6.01.01.04 (Revised by item ΥΔΡ 6109)

EURO In full: Eight and sixty
In numbers: 8.60

AT: 081	**Diesel or gas-driven pumping stations** **Power: 10.0 to 20.0 HP** Item NET ΥΔΡ 6.01.01.05 (Revised by item ΥΔΡ 6110)

EURO In full: Fourteen and thirty cents
In numbers: 14.30

AT: 082	**Diesel or gas-driven pumping stations** **Power: up to 1.0 KW** Item NET ΥΔΡ 6.01.02.01 (Revised by item ΥΔΡ 6106)

EURO In full: Four and thirty cents
In numbers: 4.30

AT: 083	**Pumping stations, motorized** **Power: 1.0 to 2.5 kW** Item NET ΥΔΡ 6.01.02.02 (Revised by item ΥΔΡ 6107)

EURO In full: Five and ten cents
In numbers: 5.10

AT: 084	**Pumping stations, motorized** **Power: 3.0 to 5.0 kW** Item NET ΥΔΡ 6.01.02.03 (Revised by item ΥΔΡ 6108)

EURO In full: Six and eighty cents
In numbers: 6.80

AT: 085	**Pumping stations, motorized** **Power: 5.0 to 7.5 kW** Item NET ΥΔΡ 6.01.02.04 (Revised by item ΥΔΡ 6109)

EURO In full: Eight and sixty cents
In numbers: 8.60

AT: 086	**Pumping stations, motorized** **Power: 8.0 to 10.0 kW** Item NET ΥΔΡ 6.01.02.05 (Revised by item ΥΔΡ 6110)

EURO In full: Ten and thirty cents
In numbers: 10.30

Lowering groundwater level using the well points system, per day of system operation

Lowering of the groundwater level using the well points system, in line with ETEP 08-10-03-00 "Dewatering with well points".

The unit price includes:

a. Delivery on site the project of the required equipment (pumps, piping, generators, automations, etc.)
b. Installation of the equipment in line with the provisions of the design and the manufacturer's instructions
b. Uninterrupted operation during the execution of the works, in line with the Time Schedule, as approved by the Service (fuel or electrical power and utilization of the personnel responsible for the installation, control and maintenance)
b. Full dismantling and transportation of the entire equipment outside the worksite area upon completion of the foreseen works.

Price per day that the installed system remains on-site the project, irrespective of the hours of operation.

ΑΤ: 087	**Operation of the pumping station based on the number of well points** **Daily operation of the pumping station with 4 well points** Item ΝΕΤ ΥΔΡ 6.02.01.01 (Revised by item ΥΔΡ 6110)

EURO In full: Three hundred and thirty
In numbers: 330.00

ΑΤ: 088	**Operation of the pumping station based on the number of well points** **Daily operation of the pumping station with 48 well points** Item ΝΕΤ ΥΔΡ 6.02.01.02 (Revised by item ΥΔΡ 6110)

EURO In full: Six hundred and twenty
In numbers: 620.00

ΑΤ: 089	**Operation of the pumping station based on the number of well points** **Daily operation of 20 kW pumping station** Item ΝΕΤ ΥΔΡ 6.02.02.01 (Revised by item ΥΔΡ 6110)

EURO In full: Three hundred and thirty
In numbers: 330.00

ΑΤ: 090	**Operation of the pumping station based on the installed power** **Daily operation of 50 kW pumping station** Item NET ΥΔΡ 6.02.02.02 (Revised by item ΥΔΡ 6110)

EURO In full: Six hundred and twenty
In numbers: 620.00

ANCHORING

AT: 091	**Permanent pre-stressed rock anchoring of the slopes of open excavations, operation load 400-500 kN and length ≤ 20 m** Item ΝΕΤ ΟΔΟ Β-21.1 (Revised per item ΥΔΡ-7024)

Drilling works means drilling executed by mechanical equipment moving on the work floor and not by suspending personnel or equipment.

Pre-stressed rock anchoring of the slopes of open excavations of a permanent (double) protection, using metal anchors with increased durability against corrosion (to avoid oxidization), as per the design and ETEP 11-02-04-00 "Pre-stressed anchors".

The price includes:

- The supply and on site transportation of the anchors and accessories
- The mobilization, utilization and de-mobilization of the required equipment
- The drilling of holes at the required depth and width
- The hole cleaning and rinsing
- The installation, tensioning and re-tensioning of the anchors
- The Inspection of the anchors and measurement of the loading
- Grout injection (cement or resin based)
- The construction of the trial anchors

Price per linear meter of pre-stressed rock anchor, depending on the nominal operation load and length.

Euro In full: Fifty-seven
In numbers: 57.00

<u>Fully grouted bolts in open excavation slopes</u>

Rock nailing using steel fully grouted dowels of any length, made of B500C steel, for retaining the slopes of open excavations, rock stabilization, nailing of meshes, wire ropes or fences, etc., as per ETEP 12-03-03-04 "Tunnel support with simple fully grouted bolts (SN dowels)".

The unit price includes:

- The supply of the threaded bolts, grout and all required accessories (base plate, nuts, etc.),
- On site transportation, sideways movement and approaching the place of installation,
- Mobilization, relocation to various work places, utilization and de-mobilization of the required mechanical equipment,
- Drilling, cleaning and rinsing of the hole, installation of the bolt, injecting the grout, primary and final nut tightening and bolting inspection.

Price per linear meter of nail, including the thread

AT: 092	**Bearing capacity 200kN using Φ25 B500C bars** Item ΟΔΟ Β-23.1 (Revised per item ΥΔΡ-7025)

Euro In full: Fifteen and forty cents
In numbers: 15.40

AT: 093	**Bearing capacity 300kN using Φ28 B500C bars** Item ΝΕΤ ΟΔΟ Β-23.2 (Revised per item ΥΔΡ-7025)

Euro In full: Seventeen and twenty cents
In numbers: 17.20

AT: 094	**Bearing capacity 440kN using Φ32 B500C bars** Item ΝΕΤ ΟΔΟ Β-23.3 (Revised per item ΥΔΡ-7025)

Euro In full: Twenty-four and forty cents
In numbers: 24.40

STRUTS

AT: 095	**Bearing elements made of iron beams or girder beams up to 160 mm** Item ΝΕΤ ΟΙΚ 61.05 (Revised per item ΟΙΚ-6104)

Construction of bearing elements made of iron beams or girder beams of any type, with a length or side up to 160 mm, grading S235J, of any other dimensions, pattern and at any location or height from the ground or work floor, connected by bolts with double nuts inside specially drilled holes with interlaid plates or electro-welded, according to the design, and their fixation on the foundation or other structural elements using non-shrinkable grout per ELOT EN 1504 (with CE marking).

The unit price of this item also includes the special pieces of the metal piles for the construction of the heads.

The use of the required lifting machinery is included.

Price per Kilogram (kg) of construction

Euro **In full:** Two and forty cents
In numbers: 2.40

AT: 096	**Bearing elements made of iron beams or girder beams >160 mm** Item NET OIK 61.06 (Revised per item OIK-6104)

Construction of bearing elements made of iron or girder beams of any type, with a height or side larger than 160 mm, grading S235J, of any other dimensions and patterns, at any location or height from the ground or work level, connected by bolts with double nuts inside specially drilled holes with interlaid plates or electro-welded, according to the design, and their fixation on the foundation or other structural elements using non-shrinkable grout per ELOT EN 1504 (with CE marking).

The use of the required lifting machinery is included.

Price per Kilogram (kg) of construction

Euro **In full:** Two and fifty cents
In numbers: 2.50

PILING

Drilling and casting in-situ bored piles

Construction of bored in situ cast pile made of reinforced concrete class C20/25, in ground of any composition, in any depth from the ground surface, in wet or dry conditions, using any system, on condition that the pile's concrete class C20/25, diameter, foundation and reinforcement bars covering with concrete foreseen by the design are achieved.

The works shall be executed according to ETEP 11-01-01-00 "Bored, in-situ cast concrete piles and pile cap beams".

The unit price (per pile cross section) includes the following:

- Mobilization, installation, operation and de-mobilization of the pile boring machinery and other auxiliary equipment and resources,
- Local movement of the drilling and other equipment to the location of each bored pile,
- Configuration of the work surfaces to render feasible the boring equipment's approaching and operation,
- Taking all measures to address surface and/or ground waters,
- Collection, removal and dumping of the excavation/boring spoil,
- Supply, in-situ transportation and casting of class C20/25 concrete, using cement type IV resistant to sulphates (as stipulated in PD 244/80), when the ground's chemical composition so dictates,
- Utilization of the necessary tremmie pipes,
- Any required filling of the bored pile hole with granular material.

The price includes in a converted form:

- The cost for the trial loading of functioning piles (one pile every 20 piles and at least one pile per bridge or wall) in case of piles whose tip is not driven in rock.
- The pile concreting integrity testing for all piles using sonic methods.
- The cost for the collection, presentation and evaluation of the results of the above inspections.

The unit prices do not include the following costs:

- Supply, configuration and placement of the pile's reinforcement cage made of B500 C steel.
- Use of bendonite during drilling in order to prevent collapses of the hole sides.
- Routing the metal jacket in the pile's hole.
- Embedding steel pipes in the pile's body and execution of the relevant drilling, grouting, etc., for reasons of quality control of the pile's foundation bottom. The relevant work method shall be proposed and documented by the Contractor and be subject to the Service's approval.
- Detailed survey of the concreting continuity throughout the height of the pile, at high load piles e.g. > 500 ton using "γ" (Gamma) rays or other similar non destructive tests.
- Any additional loading of functioning / not functioning piles, in addition to those mentioned in the above paragraph.
- Any additional trial loading (on functioning/non functioning piles) using horizontal loads.

The measurement concerns the actual length of an accepted cast pile, from its bottom level up to the final level of the pile head, as foreseen in the design. The measurement does not incorporate any additional depth below the approved bottom level and the chopped part of the pile head.

Price per linear meter of bored in-situ cast pile.

AT: 097	**Bored pile diameter Φ 0.60 m** Item NET ΟΔΟ Β-26.1 (Revised per item ΟΔΟ-2731)
Euro	In full: Eighty-one and forty cents In numbers: 81.40

AT: 098	**Bored pile diameter Φ 0.80 m** Item NET ΟΔΟ Β-26.2 (Revised per item ΟΔΟ-2731)
Euro	In full: Ninety-one and fifty cents In numbers: 91.50

AT: 099	**Bored pile diameter Φ 1.00 m** Item NET ΟΔΟ Β-26.3 (Revised per item ΟΔΟ-2731)
Euro	In full: One hundred and twenty two In numbers: 122.00

ΑΤ: 100	**Pile metal jacket** Item ΝΕΤ ΟΔΟ Β-27 (Revised per item ΟΔΟ-2672)

Lining the bored piles with a jacket made of black sheet 5 mm thick, according to the design and ETEP 11-01-01-00 "Bored, in-situ cast concrete piles and cap beams".

The unit price includes:

- Supply and in-situ transportation of the sheet and all required consumables
- The treatment, cutting and welding of the sheet to form the metal jacket, the external protection of the jacket with asphalt emulsion (including the suitable primer), as well as sheet lowering
- Placing the metal jacket in the pile hole.

Price for one kilogram of the metal jacket fully formed and installed.

Euro In full: Two and thirty cents
In numbers: 2.30

ΑΤ: 101	**Sealing of pile wall using HDPE membrane** Item ΝΕΤ ΟΔΟ Β-28 (Revised per item ΟΔΟ-2412)

Sealing the face of the pile wall using High Density Polyethylene (HDPE) membrane, 1,00 mm thick, with conical protrusions at least 8m high.

The unit price includes:

- Supply, in-situ transportation of the HDPE membrane, fixing item, joint waterstops, etc.,
- Bringing the membrane near to the location foreseen by the design and placing it.

Price per square meter of pile wall surface, with overlapping in a converted form.

Euro In full: Eleven and twenty cents
In numbers: 11.20

OTHER RETAINING WORKS

AT: 102	**Timber Shoring System** Item ΥΔΡ 7.01 (Revised per Item ΥΔΡ 6301)

Shoring of trench slopes using timber shoring system with planks, boards or other similar method, with the required materials and couplers, as well as the labor for complete construction, dismantling and removal of the materials for re-use, according to the project's design of the Contractor's DFD, as to be approved by the Service.

Infrequent shoring (individual shoring up to length of 2.0 m every 20 m of the trench) is included in a converted form in the relevant articles for trench excavation and does not fall under this item. It is stressed that whenever this item is applied, which refers to "systematic shoring", no quantities are subtracted as referring to "infrequent shoring" and the total surface is measured.

The non-apparent works acceptance protocol for retaining shall necessarily state the soil designation for the respective trench.
Price per square meter (m2) of retained surface in contact with the trench slopes.

EURO In full: Two
In numbers: 2.00

AT: 103	**Supply of steel sheet-piling** Item NET ΥΔΡ 7.02 (Revised per Item ΥΔΡ 6102)

Supply, on site transportation and temporary storage of cold-formed steel sheet piles made of class S235 JRC steel per ELOT EN 10249-1, for the construction of boxes or barriers, according to the design and ETEP 11-02-02-00 '' Retaining structures with steel-sheet piles''.

This item is applicable only when the sheet piles are foreseen to be incorporated in the project, Otherwise, item 7.03 of the Price List is applicable: ''Utilization of steel sheet piles".

This item incorporates any type of couplers, parts and steel profiles required for the formation of the pile sheeting according to the design.

The unit price also includes the loss of sheet piles due to unsuccessful drive and extraction of the pile (when re-use in the same project is foreseen).

Price per kilogram (kg) of successfully driven steel sheet piles along with their accessories, as per item 7.04 of NET ΥΔΡ.

EURO In full: One
In numbers: 1.00

AT: 104	**Use of steel sheet piles** Item ΝΕΤ ΥΔΡ 7.03 (Revised per Item ΥΔΡ 6103)

This item defines the price for the use only of the steel piles and all couplers, accessories and steel profiles transported onsite the project in view of the pertinent works, according to the design and ETEP 11-02-02-00 "Retaining structures with steel-sheet piles ", regardless the number of re-uses in the project.

The unit price includes: renting or amortization of the sheet piles and accessories, transportation onsite the project, temporary storage, sideway movements, all kinds of wear or loss of sheet piles due to unsuccessful drive or extraction, as well as loading and transportation to the owner's storage area after the completion of the works.

Price per kilogram (kg) of successfully driven steel sheet piles along with their accessories, as per item 7.04 of NET ΥΔΡ.

EURO In full: twenty five cents
In numbers: 0.25

AT: 105	**Steel sheet pile drive** Item ΝΕΤ ΥΔΡ 7.04 (Revised per Item ΥΔΡ 6104

Construction of retaining panel made of onsite transported steel sheet piles, according to the design and ETEP 11-02-02-00 "Retaining structures with steel-sheet piles".

The unit price includes:

a. Moving closer of the sheet piles (their supply and cost for use is not included) to the installation location, their erection and stabilization using scaffolding and means, as well as pile driving using hammering or vibrating devices attached on excavator, or other appropriate method.
b. Fetching and moving the pile driving machine in the worksite, as well as its removal after the completion of the works
c. The configuration of platforms as required
d. Installation of steel profiles for rigidity and load distribution reasons, as well as threaded supports during the excavation (if foreseen)
e. The extraction of the sheet piles that were unsuccessfully placed or buckled during driving

Price per square meter (m^2) of panel of sheet piles, measured by projection to the vertical.

Euros In full: Fifteen
In numbers: 15.00

AT: 106	**Steel sheet pile extraction** Item NET ΥΔΡ 7.05 (Revised per item ΥΔΡ 6105

Extraction of successfully placed steel sheet piles.

The unit price includes:
a. The use of the required mechanical equipment and resources
b. Dismantling of scaffoldings and other auxiliary structures
c. Gathering and stacking of the sheet piles and their accessories, in order to be re-used or removed from in the project.

Price per square meter (m^2) of extracted panel of sheet piles.

Euro In full: Seven
In numbers: 7.00

AT: 107	**Retaining of trench slopes with steel sheets** Item NET ΥΔΡ 7.06 (Revised per item ΥΔΡ 6103)

Temporary shoring of trench slopes, using two-sided industrial type sheets, such as KRINGS type or other equivalent, with the required bearing capacity in order to receive the earth pressure and the lateral loads from permanent or live loads induced by vehicle or machinery circulation, according to the design or the Contractor's DFD.

The unit price includes:
a. Onsite transportation, moving around and removal of the equipment with all required struts, braces, etc.
b. The deployment of the required machinery for gradually lowering the sheets into the trench, as well as any required stabilization
c. Sheet assembly and disassembly.
d. Gradual extraction when the trench is backfilled
e. All kinds of wear to the sheets and their accessories

Measurement shall be in square meters (m^2) of installed sheets (1.00 m^2 of sheeting to retain 2.00 m^2 of trench slope). Only the part of the sheet above the excavation floor is measured and up to 20 cm above the soil surface.

Note: This article is applicable only when explicitly foreseen by the project's design

Price for one square meter (m^2) of installed steel sheets.

Euro In full: Thirty one and ninety cents
In numbers: 31.90

AT: 108	**Application of Berlin method for excavations with vertical slopes** Item ΝΕΤ ΥΔΡ 7.07 (Revised per item ΥΔΡ 6103)

Application of the Berlin method to execute excavations with vertical slopes, in case of presence of adjacent structures or when adverse geotechnical conditions are encountered, as per the project's design.

The unit price includes:

a. Bringing on site and removal of the bored piles drilling machine and of the other required equipment and resources.
b. Supply and onsite transportation of the foreseen by the design steel profiles of "Π" section, class S235JR and of steel plates, or footed steel profiles HPE or HB, as per the design.
c. Onsite forming of the steel piles using electro-welding (includes deployment of welding equipment and consumables)
d. Drilling of holes 450 - 600 mm in diameter, as per the design, at the foreseen depth and concentration, loading and removal of the spoil.
e. Alternatively, pile driving with hammering or vibrating devices, as foreseen in the design
f. Lowering of the steel pile into the hole and its embedment in C16/20 concrete for its part below the trench level (embedment zone), and with lean concrete for the rest of its part (supply and use of the materials included), or with CLSM: (controlled low strength material)

It is pointed out that the price does not include the construction of the panels of the concrete walls between the steel pipes and the any required anchoring (permanent or temporary); they are prices separately on the basis of the pertinent items of the Price List.

The Berlin method piles shall be measured in linear meters of installed twin U profile, fully embedded or driven, as per the design's drawings with details.

For one linear meter of steel pile as per the above.

Euro In full: Two hundred and nine
In numbers: 209.00

EMBANKMENTS – EMBEDMENTS – IMPROVEMENTS – FILLING OF ISLANDS

AT: 109	**Embankments made of granular material under sidewalks** Item ΝΕΤ ΟΔΟ Β-4.1 (Revised by Item ΟΔΟ-3121.Β)

Embankment made of graded crushed quarry material at sidewalks locations, laid between the "pavement bedding layer" and the bedding level of concrete slabs or other final paving of the sidewalk, with a minimum compaction density of 90%, achieved in the laboratory according to the Proctor modified method, as per ELOT EN 13286-2.

Execution of the works according to ETEP 02-07-01-00 "Construction of embankments".

The unit price includes:

- The supply of the crushed quarry material and sprinkling water, as well as transportation on site from any distance,

- Transport vehicles idle time,
- The laying, configuration, sprinkling and compaction of the crushed material using the appropriate mechanical equipment, per Layers of thickness up to 30 cm, to the aforementioned compaction density.

Measurement takes place on compacted volume of ready layers, by measuring the original and final cross sections.

Price per cubic meter

Euro In full: Six and thirty cents
In numbers: 6.30 **[*]**

AT: 110	**Transition embankment for technical works and sewage pipe zone embankments** Item ΝΕΤ ΟΔΟ Β-4.2 (Revised by Item ΥΔΡ-6068)

Construction of transition embankment made of granular material, behind and above technical works, up to a height of 1.0 m from the technician's key (Cut and Cover exempted), as well as of the embankment for filling the zone of pipes – ducts of any type in trenches at the roadside, and for filling the remaining excavation volume within the road borders, according to ETEP 02-07-03-00 "Transition embankments".

The unit price includes the following:

- The configuration and compaction of the embankment bedding soil, when embankments are fully or partially seated on natural soil
- The supply and transportation from any distance to the place of incorporation of the granular material and other required materials, including loading/unloading and truck idle times.
- The laying, configuration, filling up and compaction
- The cost for conducting all required compaction inspections
- The construction of any required horizontal or vertical retaining elements
- The cost for the measures that must be implemented for the protection of the pipes, ducts, etc., as well as the cost for the protection lining against water, corrosion, etc.

Measurement takes place on compacted volume of ready layers, by measuring the original and final cross sections, as per the design stipulations.

Price per cubic meter of ready structures of transition embankments, as well as granular material embankments for pipes / ducts.

Euro In full: Nine and fifty cents
In numbers: 9.50 **[*]**

ΑΤ: 111	**Trench backfilling with excavation spoil without special compaction requirements** Item ΝΕΤ ΥΔΡ 5.03 (Revised per item ΥΔΡ 6066)

Backfilling of any type of trench using excavation spoil transported onsite, which do not require special compaction, using mechanical means. The price includes the laying of the material, mild compaction with passes by the laying machine, or use of soil compactors, as well as configuration and smoothening of the final surface.
Price per cubic meter (m^3) of backfilled trench volume.

Euro In full: thirty eight cents
In numbers: 0.38

ΑΤ: 112	**Underground utilities trench backfilling with excavation spoil requiring special compaction** Item ΝΕΤ ΥΔΡ 5.04 (Revised per item ΥΔΡ 6067)

Backfilling of PUO trenches in residential areas or underneath road axes, in up to 30 cm thick layers, using the appropriate excavation spoil from the project that have been disposed on the side or with borrowed soil transported onsite the project, as per the design and ETEP 08-01-03-02 "Underground utilities trench backfilling".
The unit price includes side transportation of the spoil that has been disposed or delivered on site, filling the trench with the use of mechanical means and manually (as required), laying the material in up to 30 cm thick layers, sprinkling (through the supply and on site transportation of water) and the compaction by vibrators of dimensions depending on the width of the trench, so as to achieve compaction level corresponding to apparent dry density equal – as a minimum - to 95% of the density achieved in a laboratory, per Proctor Modified test in line with ELOT EN 13286-2.

Price per cubic meter (m^3) of compacted trench volume.

Euro In full: One and forty three cents
In numbers: 1.43

<u>Underground utilities trench backfilling with graded crashed quarry sand-gravel</u>

Backfilling of PUO trenches in residential areas or underneath road axes, in up to 30 cm thick layers, with graded crashed quarry sand-gravel, as per the typical cross-sections of the design and ETEP 08-01-03-02 "Underground utilities trench backfilling".
The unit price includes the supply and onsite transportation of side transportation of the graded crashed quarry material, side transportations, filling the trench with the use of mechanical means and manually (as required), laying the material in up to 30 cm thick layers, sprinkling (through the supply and on site transportation of water) and the compaction by vibrators of dimensions depending on the width of the trench, so as to achieve compaction level corresponding to

apparent dry density equal – as a minimum - to 95% of the density achieved in a laboratory, per Proctor Modified test in line with ELOT EN 13286-2.

Price per cubic meter (m^3) of compacted backfilling volume, on the basis of the payment lines concerning the trench, as defined in the design.

AT: 113	**Underground utilities trench backfilling with graded crashed quarry sand-gravel** **Overall backfilling thickness up to 50 cm** Item ΝΕΤ ΥΔΡ 5.05.01 (Revised per item ΥΔΡ 6068)

Euro In full: Eleven and forty cents
In numbers: 11.40 [*]

AT: 114	**Underground utilities trench backfilling with graded crashed quarry sand-gravel** **Overall backfilling thickness over 50 cm** Item ΝΕΤ ΥΔΡ 5.05.02 (Revised per item ΥΔΡ 6068)

Euro In full: Ten and fifty cents
In numbers: 10.50 [*]

AT: 115	**Foundation layers and pipes embedment using quarry sand** Item ΝΕΤ ΥΔΡ 5.07 (Revised per item ΥΔΡ 6069)

Foundation layers and pipes embedment using quarry sand, in line with the typical cross-sections of the design and ETEP 08-01-03-02 "Underground utilities trench backfilling".

The unit price includes:

a. Supply and transportation of quarry sand on site the project
b. Material approaching, filling and laying within the trench
c. Levelling of the foundation layers and casting or mild compaction of the embedment layer to fully enclose the pipes, paying special attention so as to avoid damage to the pipe lines.

Price per cubic meter (m^3) of backfilling as above, on the basis of the payment lines foreseen by the design (typical cross-sections of pipes)

Euro In full: Ten and fifty cents
In numbers: 10.50 [*]

AT: 116	**Foundation layers and pipes embedment using mind or torrent sand** Item NET ΥΔΡ 5.08 (Revised per item ΥΔΡ 6069.1)

Foundation layers and pipes embedment using mine or torrent sand, in line with the respective typical cross-sections of the design and ETEP 08-01-03-02 "Underground utilities trench backfilling".

The unit price includes:

a. Sand supply (mining, sieving, etc.) and transportation on site the project
b. Material approaching, filling and laying within the trench
c. Levelling of the foundation layers and casting or mild compaction of the embedment layer to fully enclose the pipes, paying special attention so as to avoid damage to the pipe lines.

Price per cubic meter (m^3) of backfilling as above, on the basis of the payment lines foreseen by the design (typical cross-sections of pipes)

Euro In full: Five and twenty cents
In numbers: 5.20 [*]

Improvement layers using sandy-gravel material

Foundation soil improvement of several structures at any project location (including improvement of the bottom of piping ditches) using sandy-gravel material, per layers, of width, granulometric grading and compaction level as stipulated in the project design.

The unit price includes the supply and transportation on site from any distance of the sandy-gravel materials, laying and compaction using the suitable mechanical equipment.

Price per cubic meter (m^3). Measurement on the basis of initial and final cross-sections.

AT: 117	**Improvement layers using natural sand gravels** Item NET ΥΔΡ 5.09.01 (Revised per item ΥΔΡ 6067)

Euro In full: Four and thirty cents
In numbers: 4.30 [*]

AT: 118	**Improvement layers using crashed quarry materials** Item NET ΥΔΡ 5.09.02 (Revised per item ΥΔΡ 6067)

Euro In full: Nine and fifty cents
In numbers: 9.50 [*]

AT: 119	**Underdrain filters with graded aggregates** Item ΝΕΤ ΥΔΡ 5.10 (Revised per item ΟΔΟ-2815)

Construction of underdrain filters with graded crushed aggregates, level 1 or level 2, linear drains (enclosure of perforated pipes, filling of draining trenches) and surface drainage (filters for slopes, drainage bedding using or not using geosynthetic materials, etc.) at the locations and with the characteristics foreseen in the design, in line with ETEP 08-03-02-00 "Underdrain filters with graded aggregates".

The until price includes the supply of aggregates of the foreseen granulometric grading, transportation from any distance at the location where they will be integrated in the project, their approaching/laying and compaction (mild, in case of linear drains, in line with the design concerning draining bedding).

Measurement within the dimensions constraints foreseen by the design (cross-section of linear drain, thickness of draining bedding). When measuring the volume of the filter of the linear drains, the cross-section of the perforated pipe will be subtracted.

Price per cubic meter of installed filter material

Euro In full: Eight and sixty cents
In numbers: 8.60

AT: 120	**Construction of sand - coarse layers of a variable thickness** Item NET ΟΔΟ Α-23 (Revised per item ΟΔΟ-3121Α)

Construction of a layer of variable thickness, either for draining or for soil improvement purposes, underneath embankments and underneath foundations of technical works, made of coarse gravel and sand, maximum grain size 20cm, deriving either from natural sand gravel sieving or rock crushing.

The unit price includes:

- The configuration and compaction of the soil where the gravel and coarse sand layer will be based, with minimum compaction density of 90%, achieved in the laboratory according to the Proctor modified method, as per ELOT EN 13286-2
- The supply and transportation of sand, coarse gravel and the required sprinkling water, from any distance whatsoever, including loading/unloading and truck idle times
- The laying, sprinkling and compaction of materials.

Measurement is conducted on condensed volume with initial and final cross section readings.

Price per cubic meter

EURO In full: Six and thirty cents
In numbers: 6.30 **[*]**

AT: 121	**Filling of road islands with horticultural soil** Item NET ΟΔΟ Α-25 (Revised per item ΟΔΟ-1620)

Filling of the central island of road arteries, islands in junctions/intersections and green areas with horticultural soil, in line with the drawings and ETEP 02-07-05-00 "Lining of road embankment slopes - filling of road islands with horticultural soil".

The unit price includes:

- Delivery of the appropriate horticultural soil that has been deposited during the excavation works of the project (loading/unloading, transportation on site the project from any distance whatsoever and truck idle times
- Preparation of the surface where the horticultural soil will be laid
- Placement, laying, light compaction of the horticultural soil and its preservation until expiry of the project warranty period.

Preservation means keeping the level of the type of filling, as provided for by the design, by means of delivery and laying a supplementary quality of horticultural soil.

Price per cubic meter of laid slightly compacted horticultural soil, with initial and final cross section readings.

EURO In full: One and ninety cents
In numbers: 1.90

LAND (SCRUB) CLEARING - CUTTING DOWN AND GRUBBING OF TREES - RE-PLANTING OF TREES

Land (Scrub) Clearing

Land clearing along with the disposal and piling up of vegetation at loading locations, in line with the design and ETEP 02-01-01-00 "Works zone grubbing and clearing".

Price per square meter of land clearing (m^2)

AT: 122 **with sapling - trunk circumference up to 0.25 m**
Item NET ΟΙΚ 20.01.01
(Revised per item ΟΙΚ-2101)

EURO In full: Four
In numbers: 4.00

AT: 123 **with sapling - trunk circumference from 0.26 to 0.40 m**
Item NET ΟΙΚ 20.01.02
(Revised per item ΟΙΚ-2101)

EURO In full: Five
In numbers: 5.00

Cutting down – grubbing of trees

Grubbing of big trees, using an excavator. Cutting down of trees, truck-transportation of grubbing debris, and disposal at designated area, as foreseen by the landscaping study and ETEP 10-07-01-00, must have preceded.
The expense related to the required labour-technical personnel, machinery and tools for the execution of works are also included herein.

Price per piece (pc)

AT: 124 **Grubbing of big trees - trunk circumference from 0.31 to 0.60 m**
Item NET ΠΡΣ Ζ-2.2
(Revised per item ΠΡΣ-5354)

EURO In full: Sixty
In numbers: 60.00

AT: 125	**Grubbing of big trees - trunk circumference from 0.61 to 0.90 m** Item ΝΕΤ ΠΡΣ Z-2.3 (Revised per item ΠΡΣ-5354)

EURO In full: Eighty
In numbers: 80.00

AT: 126	**Grubbing of big trees - trunk circumference from 0.91 to 1.20 m** Item ΝΕΤ ΠΡΣ Z-2.4 (Revised per item ΠΡΣ-5354)

EURO In full: One hundred
In numbers: 100.00

AT: 127	**Grubbing of big trees - trunk circumference from 1.21 to 1.50 m** Item ΝΕΤ ΠΡΣ Z-2.5 (Revised per item ΠΡΣ-5354)

EURO In full: One hundred and thirty-five
In numbers: 135.00

AT: 128	**Grubbing of big trees - trunk circumference over 1.51 m** Item ΝΕΤ ΠΡΣ Z-2.6 (Revised per item ΠΡΣ-5354)

EURO In full: One hundred eighty
In numbers: 180.00

AT: 129	**Cutting down – grubbing of non-native tree species (ailanthus etc.) trunk height up to 3.0 m** Item ΝΕΤ ΠΡΣ Z-2.7 (Revised per item ΠΡΣ-5354)

EURO In full: Three
In numbers: 3.00

AT: 130	**Cutting down – grubbing of non-native tree species (ailanthus etc.) trunk height > 3,0 m** Item ΝΕΤ ΠΡΣ Z-2.8 (Revised per item ΠΡΣ-5354)

EURO In full: Eight
In numbers: 8.00

Re-planting of trees

Re-planting works shall be conducted per the landscaping study and ETEP 10-05-08-00.

AT: 131	**Re-planting of plants with earth bale – volume 45 - 150 lt** Item ΝΕΤ ΠΡΣ Ε-10.1 (Revised per item ΠΡΣ-5210)

Preparation of the plant (pruning, etc.), cutting of roots, grubbing using the appropriate machinery, wrapping the 45 - 150 lt earth bale using the appropriate matter, loading and transportation to the new hole for planting, unloading, planting, fertilizing, and configuration of an irrigation basin, depending on the plant's foliage, as well as a basin for using the flood irrigation method. The price includes the value pertaining to fertilizer and water, and the value for the disposal of all materials to derive from its re-planting (stones, bags, pots, etc.).

Price per piece (pc)

EURO In full: Forty-five
In numbers: 45.00

AT: 132	**Re-planting of plants with earth bale – volume 151 - 300 lt** Item ΝΕΤ ΠΡΣ Ε-10.2 (Revised per ΠΡΣ-5210)

Preparation of the plant (pruning, etc.), cutting of roots, grubbing using the appropriate machinery, wrapping the 151 – 300 lt earth bale using the appropriate matter, loading and transportation to the new hole for planting, unloading, planting, fertilizing, and configuration of an irrigation basin, depending on the plant's foliage, as well as a basin for using the flood irrigation method. The price includes the value pertaining to fertilizer and water, and the value for the disposal of all materials to derive from its re-planting (stones, bags, pots, etc.).

Price per piece (pc)

EURO In full: One hundred and forty
In numbers: 140.00

ROAD PAVING

AT: 133	**Road Pavement Sub-base with variable thickness** Item ΝΕΤ ΟΔΟ Γ-1.1 (Revised per item ΟΔΟ-3121.Β)

Preparation of road pavement sub-base with variable thickness made of stabilized crushed aggregates, as per ETEP 05-03-03-00 "Road pavement layers with unbound aggregates", with compaction per layers, maximum compaction thickness 0.10 m per layer, irrespective of the form and extent of the surface in outdoor or underground Projects.

The unit price includes:

- The supply of aggregates and water for sprinkling purposes,

- Their transportation on site of the Project from any distance whatsoever,
- Coating, sprinkling and full compaction to obtain the geometrical surface, as provided for in the design.

Measurement shall be performed through geometrical levelling per cross sections before and after the installation of the paving, in accordance with the design.

Price per cubic meter of compacted sub-base with variable thickness.

EURO In full: Nine and fifty cents
In numbers: 9.50 **[*]**

AT: 134	**Road pavement sub-base - compaction thickness 0.10 m** Item ΝΕΤ ΟΔΟ Γ-1.2 (Revised per item ΟΔΟ-3111.Β)

Preparation of the road pavement sub-base, compaction thickness 0.10 m, made of stabilized crushed aggregates as per with ETEP 05-03-03-00 "Road pavement layers with unbound aggregates", irrespective of the form and extent of the surface in outdoor or underground Projects.

The unit price includes:

- The supply of aggregates and water for sprinkling purposes,
- Their transportation on site of the Project from any distance whatsoever,
- Coating, sprinkling and full compaction to obtain the geometrical surface, as provided for in the design.

Price per square meter of sub-base layer, compaction thickness 0.10 m

EURO In full: Ninety cents
In numbers: 0.90 **[*]**

AT: 135	**Road pavement base with variable thickness** Item ΝΕΤ ΟΔΟ Γ-2.1 (Revised per item ΟΔΟ-3211.Β)

Preparation of road pavement base with variable thickness made of stabilized crushed aggregates as per ETEP 05-03-03-00 "Road pavement layers with unbound aggregates", with compaction per layers, maximum compaction thickness 0.10 m per layer, irrespective of the form and extent of the surface in outdoor or underground Projects.

The unit price includes:

- The supply of aggregates and water for sprinkling purposes,
- Their transportation on site of the Project from any distance whatsoever,
- Coating, sprinkling and full compaction to obtain the geometrical surface provided for in the design.

Measurement shall be performed through geometrical levelling per cross sections before and after the installation of the paving, in accordance with the design.

Price per cubic meter of compacted base with variable thickness

EURO In full: Nine and fifty cents
In numbers: 9.50 **[*]**

AT: 136	**Base - 0.10 m thick (PTP O-155)** Item ΝΕΤ ΟΔΟ Γ-2.2 (Revised per item ΟΔΟ-3211.Β)

Preparation of the road pavement base, compaction thickness 0.10 m made of stabilized crushed aggregates, as per ETEP 05-03-03-00 "Road pavement layers with unbound aggregates", irrespective of the form and extent of the surface in outdoor or underground Projects.

The unit price includes:

- The supply of aggregates and water for sprinkling purposes,
- Their transportation on site of the Project from any distance whatsoever,
- Coating, sprinkling and full compaction to obtain the geometrical surface provided for in the design.

Price per square meter of base layer, compaction thickness 0.10 m.

EURO In full: One
In numbers: 1.00 **[*]**

AT: 137	**Levelling Layer – application to rocky trenches** Item ΝΕΤ ΟΔΟ Γ-4 (Revised per item ΟΔΟ-3111.Β)

Construction of levelling layer to be applied to rocky trenches, minimum compaction thickness 0.08 m made of stabilized crushed aggregates, irrespective of the form and extent of the surface to be laid, as per ETEP 05-03-03-00 "Road pavement layers with unbound aggregates".

The unit price includes:

- The supply of the required materials,
- Their transportation on site of the Project from any distance whatsoever,
- Loading / unloading and idleness of the vehicles,
- Coating, sprinkling and full compaction to obtain the geometrical surface provided for in the design and the desired compaction degree.

Price per square meter of levelling layer, minimum compaction thickness 0.08 m.

EURO In full: Seventy cents
In numbers: 0.70 **[*]**

ASPHALT WORKS (asphalt price)

AT: 138	**Cutting the road pavement using asphalt cutter** Item ΝΕΤ ΟΔΟ Δ-1 (Revised per item ΟΙΚ-2269(α))

Cutting the road pavement made of asphalt concrete or non-reinforced concrete of any thickness using an asphalt cutter to exclude dismantling beyond the prescribed cutting limits and to protect the remaining road surface against wear during the execution of works.

Dismantling of the section cut and removal of debris are priced as "Excavation on earthy - semi-rock soil".

Price per linear meter of road pavement section cut using asphalt cutter.

EURO In full: Eighty-one cents
In numbers: 0.81

Abrasion of road pavement (milling)

Abrasion (milling) of layers of the existing asphalt road pavement using scraper (milling machine) down to the depth foreseen by the design, with a smooth and uniformly inclined final surface and, as for the remaining items, as per ETEP 05-03-14-00 "Milling of asphalt concrete pavements".

The unit price includes:

- Delivery, operation and removal of scraper
- Loading of debris scraped on a vehicle and transportation to the locations of final disposal or recycling, as foreseen by the design
- Cleaning of the scraped surface using mechanic broom and manual assistance
- Mechanical equipment idle time
- Traffic arrangements during the execution of works through the installation of temporary safety worksite signage

Price per square meter (m^2) of completed excavation - milling work on the existing road pavement.

AT: 139	**Abrasion of road pavement (milling) at a depth down to 4 cm** Item ΝΕΤ ΟΔΟ Δ-2.1 (Revised per item ΟΔΟ-1132)

EURO In full: Ninety-five cents
In numbers: 0.95

AT: 140	**Abrasion of asphalt road pavement (milling) down to a depth of 6 cm** Item NET ΟΔΟ Δ-2.2 (Revised per item ΟΔΟ-1132)

EURO In full: One and twenty-one cents
In numbers: 1.21

AT: 141	**Abrasion of asphalt road pavement (milling) down to a depth of 8 cm** Item NET ΟΔΟ Δ-2.3 (Revised per item ΟΔΟ-1132)

EURO In full: One and fifty-five cents
In numbers: 1.55

AT: 142	**Asphalt pre-coating** Item NET ΟΔΟ Δ-3 (Revised per item ΟΔΟ-4110)

Pre-coating of a non-paved surface using asphalt solution type ΜΕ-0 or acids asphalt emulsion, irrespective of the form and extent of the surface in outdoor or underground Projects, as per ETEP 05-03-11-01 "Asphalt pre-coating".

The unit price includes:

- The supply of asphalt, petroleum and of any required non-hydrophilic compound and their transportation on site of the Project from any distance whatsoever
- Transportation of materials and preparation of the asphalt solution (heating, storage etc.)
- Cleaning of the surface to be pre-coated using a mechanic broom and manual assistance
- Transportation and spreading of the asphalt solution or emulsion using a motorized vehicle for asphalt spreading (Federal)
- Re-heating the solution before spreading (when required)
- Eventual laying of aggregates for coating estimated on the basis of the value of production or supply and transportation of this material to the area to be coated.

Price per square meter of asphalt pre-coating.

EURO In full: One
In numbers: 1.00

AT: 143	**Asphalt adhesive coat** Item ΝΕΤ ΟΔΟ Δ-4 (Revised per item ΟΔΟ-4120)

Adhesive coat on asphalt layer or on concrete (e.g. protection of waterproofing membranes on the crown) using asphalt solution type ME-5 or pure asphalt or rapid dissolving asphalt emulsion, irrespective of the extent and the form of the surface, in underground and outdoor Projects.

The unit price includes:

- The supply of asphalt, petroleum and of any required non-hydrophilic compound and their transportation on site of the Project from any distance whatsoever
- Transportation of materials and preparation of the asphalt solution (heating, storage etc.)
- Transportation and spreading of the asphalt solution or emulsion using a motorized vehicle for asphalt spreading (Federal) and re-heating of the solution before spreading (as required).

Price per square meter of asphalt adhesive coat.

EURO In full: Thirty-eight cents
In numbers: 0.38

AT: 144	**Asphalt base layer - compaction thickness 0.05 m** Item ΝΕΤ ΟΔΟ Δ-5.1 (Revised per item ΟΔΟ-4321Β)

Preparation of asphalt base layer in underground and outdoor projects, irrespective of the extent and form of the surface, using hot rolled asphalt mix produced at a permanent plant, made of crushed quarry aggregates type ΑΣ 31.5 or ΑΣ 40, on the basis of the approved mix design and ETEP 05-03-11-04 " Hot mixed dense graded asphalt concrete layers".

The unit price includes:

- the production or supply and transportation of the appropriate aggregates and asphalt up to the asphalt mix production plant
- the production of the asphalt mix, in accordance with the approved mix design
- the transportation of the hot mix asphalt on site and its spreading using finisher
- transportation means idle time
- rolling of the asphalt mix (initial, intermediate-intensive and final), in order to ensure the specified surface texture and smoothness
- full compaction and careful levelling of the longitudinal and transverse joints to remove any traces from the surface.

The unit prices also include the price for the asphalt.

Price per square meter of asphalt base layer, of accepted quality and characteristics in accordance with ETEP 05-03-11-04, depending on its compaction thickness, as follows:

EURO In full: Five and ninety cents
In numbers: 5.90 **[*]**

AT: 145	**Asphalt layers of variable thickness measured per weight** Item NET ΟΔΟ Δ-6 (Revised per item ΟΔΟ-4421Β)

Production of non bituminous asphalt layers and cambers' changing, as well as paving patching and repairing potholes in underground and outdoor projects, irrespective of the extent and of the surface, using hot asphalt mix at a permanent plant with crushed quarry aggregates type ΑΣ 31.5 or ΑΣ 40, according to the approved mix design and ETEP 05-03-11-04 "Hot mixed dense graded asphalt concrete layers".

The unit price includes:

- the production or supply and transportation of the appropriate aggregates and asphalt up to the asphalt mix production plant
- the production of the asphalt mix, in accordance with the approved mix design
- the transportation of the hot asphalt mix on site and its coating
- transportation means idle time
- rolling of the asphalt mix (initial, intermediate-intensive and final), in order to ensure the specified surface texture and smoothness
- full compaction and careful levelling of the longitudinal and transverse joints to remove any traces from the surface.
- preliminary works on new or old asphalt road pavements (such as, for example, formation of triangular notches near gutters and manholes, sweeping, disposal of debris due to the execution of these works etc.).

The unit prices also include the price for the asphalt. Any required asphalt pre-coating or adhesive coat, are priced separately.
Measurement based on weighing notes of the asphalt mix to be paved.

Price per ton of paved asphalt mix.

EURO In full: Sixty-five and twenty cents
In numbers: 65.20 **[*]**

AT: 146	**Asphalt binding (levelled) layers - compaction thickness 0.05 m** Item NET ΟΔΟ Δ-7 (Revised per item ΟΔΟ-4421Β)

Production of asphalt binding (levelled) layer in underground and outdoor projects, irrespective of the extent and form of the surface using hot asphalt mix at a permanent plant with crushed

quarry aggregates type ΑΣ 12.5, ΑΣ 20, as per the approved mix design and ETEP 05-03-11-04 "Hot mixed dense graded asphalt concrete layers".

The unit price includes:

- the production or supply and transportation of the appropriate aggregates and asphalt up to the asphalt mix production plant
- the production of the asphalt mix, in accordance with the approved mix design
- the transportation of the hot mix asphalt on site and its coating using finisher
- transportation means idle time
- rolling of the asphalt mix (initial, intermediate-intensive and final), in order to ensure the specified surface texture and smoothness
- full compaction and careful levelling of the longitudinal and transverse joints to remove any traces from the surface
- preliminary works on new or old asphalt road pavements (such as, for example, formation of triangular notches near gutters and manholes, sweeping, disposal of debris due to the execution of these works etc.).

The unit price also includes the price for the asphalt. Any required asphalt pre-coating or adhesive coat, are priced separately.

Price per square meter of laying, of accepted quality and characteristics in accordance with ETEP 05-03-11-04.

EURO In full: Five and ninety cents
In numbers: 5.90 **[*]**

AT: 147	**Traffic asphalt layer, standard type – compaction thickness 0.05 m** Item ΝΕΤ ΟΔΟ Δ-8.1 (Revised per item ΟΔΟ-4521Β)

Preparation of traffic asphalt layer in underground and outdoor works, irrespective of the extent and form of the surface, using hot mix asphalt produced in a permanent plant, crushed quarry aggregates, type ΑΣ 12.5 or ΑΣ 20, as per the approved mix design and ETEP 05-03-11-04 "Hot mixed dense graded asphalt concrete layers".

The unit price includes:

- the production or supply and transportation of the appropriate aggregates and asphalt up to the asphalt mix production plant
- the production of the asphalt mix, in accordance with the approved mix design
- the transportation of the hot mix asphalt on site and its spreading using finisher
- transportation means idle time

- rolling of the asphalt mix (initial, intermediate-intensive and final), in order to ensure the specified surface texture and smoothness
- full compaction and careful levelling of the longitudinal and transverse joints to remove any traces from the surface.

The unit prices also include the price for the asphalt to be laid.

Price per square meter of traffic asphalt layer, of accepted quality and characteristics in accordance with ETEP 05-03-11-04, depending on its compaction thickness and the type of the asphalt to be utilized, as follows:

EURO In full: Six and thirty cents
In numbers: 6.30 **[*]**

AT: 148	**Traffic asphalt layer - urban street type** Item NET ΟΔΟ Δ-8Α (Revised per item ΟΔΟ-4521Β)

Preparation of traffic asphalt layer, urban street type, on the existing asphalt layer or after abrasion (milling) using asphalt concrete type ΑΣ 12.5 or ΑΣ 20, in accordance with the approved mix design and ETEP 05-03-11-04 " Hot mixed dense graded asphalt concrete layers", compaction thickness 50 mm, urban street type, using finisher.

The unit price includes:

- Any difficulties encountered due to restricted space, announcements to drivers not to park their vehicles on the streets to be paved using visible printed messages, as well as any required transfer of vehicles owned by drivers who do not comply with the instructions
- Opening of holes for fastening anchors using the appropriate machinery (Arrow type) for streets not milled
- Application of asphalt adhesive coat using cold asphalt emulsion 500 gr/m^2 as a minimum
- Supply, transportation from any distance, coating using finisher and compaction of the asphalt concrete
- Worksite signage in accordance with the relevant Circular of the Ministry of PEHODE.

The unit price also includes the price for the asphalt to be laid.

Price per square meter (m^2) of fully completed asphalt paving.

EURO In full: Seven and seventy cents
In numbers: 7.70 **[*]**

Reinstatement of asphalt pavements at the locations of utility network trenches

Works for the full reinstatement of one square meter of dismantled asphalt pavement, namely:

1. Laying and compaction of the road paving material using quarry aggregates at layers up to 15cm thick; total thickness equal to the pre-existing one.
2. Application of asphalt pre-coating.
3. Asphalt base layer using hot rolled asphalt mix produced at a permanent plant, compacted thickness: 50 mm.
4. Laying and compaction of hot rolled asphalt mix produced at a permanent plant, total thickness equal to the pre-existing one, placed at layers of compacted thickness up to 50 mm.
5. Application of asphalt adhesive coat in case of application of a double asphalt layer.

Included are the supply and transportation on site of all integrated materials, the introduction of measures for the required traffic regulations and the employment of personnel, utilization of equipment and means for the execution of the works, as well as the collection and removal of any redundant material and cleaning of the pavement using a mechanic broom further to the completion of the works.

This item is applicable regardless of the extent of the reinstatement works and the traffic conditions at the location where works are being executed. Individual works will be executed in line with the requirements described in the respective items of the Price List for Roadworks (NET ΟΔΟ).

Price per square meter (m^2) of a fully reinstated road pavement, depending on the width of the pre-existing asphalt layers, as follows:

ΑΤ: 149	**Reinstatement of asphalt pavements at the locations of utility networks trenches** **Reinstatement of asphalt pavements, average width of pre-existing asphalt layer 5 cm** Item ΝΕΤ ΥΔΡ 4.09.01 (Revised per item ΟΔΟ 4521Β)

EURO In full: Eleven and forty cents
In numbers: 11.40

AT: 150	**Reinstatement of asphalt pavements at the locations of utility networks trenches** **Reinstatement of asphalt pavements, average width of pre-existing asphalt layer 10 cm** Item NET ΥΔΡ 4.09.02 (Revised per item ΟΔΟ 4521Β)

EURO In full: Seventeen and ten minutes
In numbers: 17.10

VEHICLE RESTRAINT SYSTEMS

Precast concrete safety barriers per ELOT EN 1317-2, single-sided (located on the edge of the road (lay-by) or on the median equipped with barriers on either side) or double-sided (narrow median equipped with one row of barriers).

Price per linear meter.

AT: 151	**Concrete safety barriers, precast, containment level H2, working width W7, height 0.80 m, impact severity class B, option for backfilling in their rear** Item NET ΟΔΟ Ε-1.30.1 (Revised per item ΟΔΟ-2548)

EURO In full: One hundred and twenty
In numbers: 120.00

AT: 152	**Concrete safety barriers, precast, containment level H2, working width W6, height 0.80 m, impact severity class B** Item NET ΟΔΟ Ε-1.30.2 (Revised per item ΟΔΟ-2548)

EURO In full: One hundred and ten
In numbers: 110.00

AT: 153	**Concrete safety barriers, precast, containment level H2, working width W4, height 0.80 m, impact severity class B, anchored or embedded** Item NET ΟΔΟ Ε-1.30.3 (Revised per item ΟΔΟ-2548)

EURO In full: One hundred and thirty
In numbers: 130.00

AT: 154	**Bridge safety barriers made of concrete, precast, containment level H2, working width W7, height 0.80 m, impact severity class B, anchored or embedded**

	Item NET ΟΔΟ E-1.30.7 (Revised per item ΟΔΟ-2548)

EURO In full: One hundred and forty five
In numbers: 145.00

AT: 155	**Dismantling (and eventual reinstallation) of a single-sided steel safety barrier, embedded** Item NET ΟΔΟ E-3.1 (Revised per item ΟΔΟ-2151)

Careful dismantling of installed single-sided steel safety barrier at the locations to be indicated by the Service and when appropriate, in line with the works execution plan. Special care must be exhibited so as to prevent deformation, wear, etc. of the installed barriers, stanchions and other binding materials, in line with the Greek Technical Specification ETEP 05-05-02-00 "Dismantling steel safety barriers requiring or not reinstallation".

The unit price will include:

- Careful disassembly of the barriers, dismantling the stanchions by pulling them out and/or through auxiliary perimeter excavation enabling reuse thereof.
- Loading and piling disassembled materials per categories inside a truck and transportation at locations to be indicated by the Project Owner.

Price per linear meter of single-sided steel safety barrier dismantled.

EURO In full: Two and ten cents
In numbers: 2.10

AT: 156	**Reinstallation of a single-sided steel safety barrier, embedded** Item NET ΟΔΟ N.E-3.1 (Revised per item ΟΔΟ-2151)

Reinstallation of dismantled single-sided steel safety barrier, in line with the specifications for its installation already available.

The unit price will include:

- Transport and installation of the dismantled safety barrier, along with its stanchions, at the already available location or at a new location to be indicated by the Project Owner.

Price per linear meter of single-sided steel safety barrier, re-installed.

EURO In full: Two and ten cents
In numbers: 2.10

FENCING PANELS - GUARDRAILS

AT: 157	**Panels to enhance - in terms of aesthetics – the already installed worksite Fencing** Item NET N.50.15.02 (Revised per item ΟΙΚ 4713)

Further to the Project Owner's instruction, installation of panels made of synthetic tarpaulin (dim. 2m. in height x 5m. in length – approximately) fixed on a metal rectangular frame using diagonal profiles.

The subject panels shall bear coloured printed themes on their outer side; those themes shall be made available by AM in digital form.

The unit price shall include:

- Construction, transportation on site and the support of the panels on the worksite fencing items, at the locations to be indicated by the Project Owner, as well as their potential relocations within the worksite area
- Removal, loading-unloading and transportation of panels at the locations to be indicated by the Project Owner, upon completion of the works

Price per square meter of installed panel on the worksite fencing.

EURO In full: Two and thirty cents
In numbers: 2.30

AT: 158	**Steel guardrails** Item NET ΟΔΟ Ε-4.2 (Revised per item ΟΔΟ-2652)

Steel guardrails made of steel profile and plates of S235J quality per ELOT EN 10025-1, configured in line with the detail drawings of the design.

The unit price shall include:

- supply and transportation of the guardrail components, fully configured in an facility equipped with the required machine tools; proper metal blast cleaning or cleaning with sand SA 2 ½ quality, in line with standard ELOT EN ISO 8504-1, corrosion protection ensured through the application of two coats of zinc-rich paint, dry film thickness (each coat) 25 ± 5 μm
- embedding the stanchions and the struts in existing concrete structures (drilling of holes using a percussion rotary tool, levelling and embedding with cement mortar or epoxy mortar), or anchoring them using expansion stud anchors or resin-anchored bolts
- guardrail assembly with bolts and/or welding
- final coating of the guardrail with silicone alkyd enamel, 2 coats, dry film thickness: 125 μm

Price per kgr of installed steel guardrail.

EURO In full: Two and thirty cents
In numbers: 2.30

SIGNS

Roadside information signs, fully retro-reflective, with type 2 sheeting per ELOT EN 12899-1

Supply and installation of roadside information signs, fully retro-reflective, with type-2 retro-reflective sheeting, manufactured per ELOT EN 12899-1, in line with ΟΜΟΕ-ΚΣΑ (Instructions for the Design of Traffic Works/Highway Vertical Signage), the design and the Greek Technical Specification ETEP 05-04-06-00 "Fixed traffic signs".

The unit price will include:

- Manufacturing the sign from flat aluminum alloy sheeting, type $AlMg_2$, minimum thickness 3mm; the front of the sheeting will be fully coated with a retro-reflective membrane, type 2, per ELOT EN 12899-1, bearing inscriptions and symbols made of retro-reflective membrane (type specified below); the back will be of grey colour and will bear the number of the sign, the manufacturer's name and its manufacturing date.
- Manufacturing a frame made of aluminum alloy steel profiles for reinforcing the traffic sign and mounting it on the support system without perforating its surface.
- Any type of components for fixing and mounting the sign, all hot-dip galvanized per EN ISO 1461.
- Transportation of the signs and the fixing components at the installation location, properly packaged to avoid cuts, wear etc.
- Installing and fixing the sign on the support system.
- Temporary covering of the sign with an opaque plastic sheet and removal (when required).

Price per square meter of roadside information sign.

AT: 159	**Roadside information signs with inscriptions and symbols made of retro-reflective membrane, type 2, per ELOT EN 12899-1** Item ΝΕΤ ΟΔΟ Ε-8.2.2 (Revised per item ΟΙΚ-6541)
EURO	In full: One hundred and nine In numbers: 109.00

AT: 160	**Roadside information signs, fully retro-reflective, with type 1 sheeting per ELOT EN 12899-1** Item ΝΕΤ ΟΔΟ Ε-8.3 (Revised per item ΟΙΚ-6541)

Supply and installation of roadside signs, with retro-reflective sheeting made of type I retro-reflective membrane, manufactured per ELOT EN 12899-1, in line with ΟΜΟΕ-ΚΣΑ, the design and the Greek Technical Specification ETEP 05-04-06-00 "Fixed traffic signs".

The unit price will include:

- Manufacturing the sign from flat aluminum alloy sheeting, type $AlMg_2$, minimum thickness 3mm; the front of the sheeting will be fully coated with a retro-reflective membrane, type 1, per ELOT EN 12899-1, bearing inscriptions and symbols of any height, made of retro-reflective membrane, high performance, type 2, for information signs or from black colored membrane for additional signs; the back will be of grey colour and will bear the number of the sign, the manufacturer's name and its manufacturing date.
- Manufacturing a frame made of aluminum alloy steel profiles for reinforcing the traffic sign and mounting it on the support system without perforating its surface.
- Any type of components for fixing and mounting the sign, all hot-dip galvanized per EN ISO 1461.
- Transportation of the signs and the fixing components at the installation location, properly packaged to avoid cuts, wear etc.
- Installing and fixing the sign on the support system.
- Temporary covering of the sign with an opaque plastic sheet and removal (when required).

Price per square meter of roadside information sign, installed.

EURO In full: Seventy-six
In numbers: 76.00

<u>Regulatory signs and hazardous area signs</u>

Supply and installation of regulatory signs or hazardous area signs with retro-reflective sheeting coated with membrane type II, manufactured per ELOT EN 12899-1, in line with the design and the Greek Technical Specification ETEP 05-04-06-00 "Fixed traffic signs".

The unit prices will include:

- Supply of the sign and its galvanized fixing components
- Transportation of the sign to its installation location
- Fixing the sign on the pole.

Price per sign (piece), depending on its type and dimensions as follows:

AT: 161	**Hazardous area signs, triangular, side length 0.90 m** Item NET ΟΔΟ E-9.1 (Revised per item ΟΙΚ-6541)

EURO	In full: Forty-four and thirty cents In numbers: 44.30

AT: 162	**Regulatory signs, medium size** Item NET ΟΔΟ E-9.4 (Revised per item ΟΙΚ-6541)

This item includes the prices of regulatory signs with the following dimensions:

a.	triangle (P-1)	side length 0.90 m
b.	octagon (P-2)	inscribed in a square with side length 0.90 m
c.	square (P-3, P-4)	side length 0.60 m
d.	square (P-6)	side length 0.65 m
e.	circle	diameter 0.65 m

EURO	In full: Forty-four and thirty cents In numbers: 44.30

AT: 163	**Traffic sign poles made of galvanized steel tube DN 40 mm (1 ½")** Item NET ΟΔΟ E-10.1 (Revised per item ΟΔΟ-2653)

Sign poles made of galvanized steel tube, seamed, per ELOT EN 10255, steel S195T, class L (green colour code), nominal diameter DN 40 mm (thread size R = 1 ½", dεξ = 48.3 mm, wall thickness: 3.2 mm), minimum length 2.50 m, in line with the Greek Technical Specification ETEP 05-04-07-00 "Traffic signs mounting and support systems".

The unit price includes:

- Supply and transportation on site of the pole with a bracket for fixing the sign -semi-circular or P-shaped (depending on the type of the sign) - featuring a hole on the bottom for accommodating the Φ 12 mm, 30cm long steel galvanized rod intended for stabilizing the pole against twisting (included).
- Opening a 50 cm deep hole for embedding the pole on any type of soil; hole diameter: 30cm.
- Placing the pole inside the hole, providing temporary support for the pole to remain at a vertical position, and filling the hole with C12/15 concrete (work and materials)

Price per piece of galvanized traffic sign pole DN 40 mm (1 ½ ").

EURO In full: Twenty-five and seventy cents
In numbers: 25.70

AT: 164	**Traffic sign poles made of galvanized steel tube DN 80 mm (3")** Item NET ΟΔΟ Ε-10.2 (Revised per item ΟΔΟ-2653)

Sign poles made of galvanized steel tube, seamed, per ELOT EN 10255, steel S195T, class L (green colour code), nominal diameter DN 40 mm (thread size R = 3", dεξ = 89.9 mm, wall thickness: 4.0 mm), minimum length 3.30 m, in line with the Greek Technical Specification ETEP 05-04-07-00 "Traffic signs mounting and support systems".

The unit price includes:

- Supply and transportation on site of the pole with a welded round bracket for fixing the sign, drilled Φ12 mm holes to accommodate Φ9.5 mm bolts spaced at 0.15 – 0.45 – 0.65 – 0.95 m from the edge of its head, featuring a hole on its bottom for accommodating the Φ 12 mm, 40cm long steel galvanized rod or, alternatively, a steel welded plate, 10x20cm, intended for stabilizing the pole against twisting (rod or plate included).
- Opening a 60 cm deep hole for embedding the pole on any type of soil; hole diameter: 50cm
- Placing the pole inside the hole, providing temporary support for the pole to remain at a vertical position, and filling the hole with C12/15 concrete (work and materials).

Price per piece of galvanized traffic sign pole.

EURO In full: Forty and seventy cents
In numbers: 40.70

AT: 165	**Trusses for the support of large – size road side signs** Item NET ΟΔΟ Ε-14 (Revised per item ΟΔΟ-2652)

Construction of metal truss for the support of large – size road side signs, in line with the design and ETEP 05-04-07-00 "Traffic signs mounting and support systems" .

The unit price includes:

- Construction of trusses made of galvanized steel tubes, seamed, per ELOT EN 10255, steel S195T, class L (green colour code), welded
- Construction of stanchions made of galvanized steel tubes, seamed, per ELOT EN 10255, steel S195T, class L (green colour code), bearing a plugged head and with a base made of electrically welded plate with holes screwed with the foundation plate

- Construction of wind-proof connections, in line with the design provisions, among adjacent trusses made of galvalized seamed steel tubes, per ELOT EN 10255, steel S195T, class L (green colour code)
- Configuration of the anchoring cages and the respective foundation plates, all hot dip galvanized per ELOT EN ISO 1641
- Transportation of all items from the configuration plant on site the Project and their arrival at their installation location
- Excavation in every type of soil for the construction of the foundation
- Construction of foundation (works and materials) made of reinforced concrete class C16/20 within which the four anchoring cages shall be embedded (one for each stanchion of the truss)
- Assembly, lifting, installation and screwing of the bearing structure to the recesses of the anchoring cages using lifting equipment (as required)
- Reinstatement of the foundation trench surface at its initial condition (natural soil, edge of the road (lay-by), asphalt concrete, slab paving, etc.)

All items of the structure are measured in detail, based on the standardized weight tables of the tubes' cross sections utilized and of any type of screws.

Price per kilogram of the support of road side signs truss, installed.

EURO In full: Two and fifty cents
In numbers: 2.50

OTHER SIGNALING WORKS

AT: 166	**Plastic retro-reflective road stud, temporary, two-way retro-reflective** Item NET ΟΔΟ Ε-15.2 (Revised per item ΟΙΚ-6532)

Retro-reflective road studs (cat's eye), temporary or permanent, with smooth upper part, recessed for fitting the retro-reflective items. The shape, dimensions, marking and photometric properties of the retro-reflective items will comply with ELOT EN 1463-1.

Plastic retro-reflective road stud, two-way retro-reflective**,** white, red or amber colour, as per the signaling-safety design. The price also includes removal of the struts from the asphalt pavement as soon as the reason for installing them ceases to exist, further to the Service's pertinent instruction.
The price includes the expenses for the supply and transportation on site of the retro-reflective road struts, the two-component adhesive, marking on the asphalt pavement of the locations where retro-reflective road studs will be installed, local cleaning of the surface, installation and welding of the retro-reflective road studs.

Price per item (piece) of installed reflector.

EURO In full: Four and ten cents
In numbers: 4.10

AT: 167	**Reflective road marking paint** Item ΝΕΤ ΟΔΟ Ε-17.1 (Revised per item ΟΙΚ-7788)

Road marking, new or renewal of previous road marking, of any shape, type and dimensions (longitudinal, special vertical characters or symbols), using high-performance retro-reflective material with glass beads per ELOT EN 1424, a road marking performance certificate per ELOT EN 1436, a road trials certificate per ELOT EN 1824 and physical properties per ELOT EN 1871, in line with the road signaling design and the Greek Technical Specification ETEP 05-04-02-00 "Roads Horizontal Marking".

The unit prices will include:

- supply of the marking material, transportation on site and temporary storage (if required)
- availability of the required personnel, means and equipment for the execution of the works and traffic regulation during works execution
- removal and cleaning of all kinds of loose material from the road pavement using a mechanical broom or a vacuum cleaner and/or manual support
- preparation for road marking (marking-punching)
- road marking using a road marking machine suitable for the type of the material used
- traffic regulation during works execution
- introduction of measures for protecting fresh stripping until fully hardened and raising them

Price per square meter of ready road marking.

EURO In full: Three and ten cents
In numbers: 3.10

AT: 168	**Reflective striped delineator on barriers** Item ΝΕΤ ΟΔΟ Ε-19 (Revised per item ΟΙΚ-6532)

Supply and installation of reflective striped delineators for installation on safety barriers made of metal or concrete (New Jersey), white or red, with the following characteristics:

- aluminum sheeting, at least 0.5mm thick, with folded edges for the protection of the reflective membrane
- microprismatic reflective sheeting, Type 3, with ETA approval and CE marking
- minimum dimensions of reflective stripe: height: 15 cm, length: 80 cm

Price per item (piece) of reflective membrane.

EURO In full: Fourteen and thirty cents

In numbers: 14.30

AT: 169	**Base for the Temporary Support of Signs** Item ΝΕΤ ΟΔΟ Ε-20 (Revised per item ΥΔΡ-6620.1)

Supply and installation of bases for the temporary support of signs, made of cast-in situ synthetic material, recycled (non-metal) with the following characteristics:

- already configured pass-through holes for the installation of square box girders, or tubes Φ 50mm (2"), with or without joints (connections)
- already configured holes, so that the connection of superposed items for increasing the overall weight of the sign basis be feasible
- minimum dimensions: 75 x 38 x 10 cm (LxWxH); weight: at least 25kg
- durable transportation handles

Price per base (piece) of temporary support of signs.

EURO In full: Nineteen
In numbers: 19.00

GROUP B: CONCRETE STRUCTURES – WATERPROOFING – JOINTS, OTHER WORKS

CONCRETE

Concrete Structures

Construction of technical projects of any type, opening and height made of concrete produced in a permanent or worksite batching plant with crushed quarry aggregates of a proper granulometry and grain size, cement of a proper class, strength and quantity, as well as any necessary plasticizers and superplasticizers, air-entraining admixtures, stabilizers and other admixtures.

The unit prices of the concrete structures include:

- Supply and transportation from any distance of any materials for the production of worksite concrete, supply and transportation of ready-made concrete to the casting location as necessary,
- Transportation on site, installation, utilization and post work removal of all required scaffoldings, formworks or metalworks (for flat, curved or twisted surfaces), as well as of the special systems and equipment required according to each case (precasting systems, etc.).
- All kinds of machinery, equipment and resources for the concrete production, transportation, pumping, lifting, lowering, mixing, vibrating, etc.
- Development of the scaffoldings, the formworks, carriers for cantilever method,
- Partial or total loss of the mould for the formation of any types of gaps,
- Treatment of the construction joints
- Curing the concrete with any means until its hardening.

The following are also included in the unit prices in a converted form:

- Cost for the necessary concrete mix designs.
- Cost for the designs concerning the construction method, the auxiliary installations and all kinds of scaffoldings (with the exception of the designs concerning the cantilever construction method, self-supported beams, etc.
- Cost for sampling, inspections, tests and measurements.
- Cost for creating 4.50X10.00m openings to the scaffolds during bridge concreting for vehicle circulation reasons.
- Diving to the utilized concrete the appropriate compressive strength and other characteristics which ensure the surface finishing type foreseen by the design, which determines acceptance or rejection of the constructed structure (adaptation of aggregates granulometric grading, addition of the proper admixtures, etc.).

The actual volume of concrete shall be measured for each type of structures, as per the design, not excluding the reinforcement, pre-stressing tubes (in case of pre-stressed concrete), or the tube routing gaps, the linear scotia of a cross section up to 10 cm2 and the surface recesses up to 5 cm deep, excluding however the gaps destined to reduce the volume of concrete.

The concrete cast without the use of formworks shall be measured on the basis of the dimensions in the design drawings, without measuring any additional volume cast due to the absence of formworks.

Wherever in the items concerning concrete reference is made to a height from the ground, this height is the distance of the bottom footing of the structure from the surface of the natural ground and not the surface than may result after the excavation.

The prices of concrete structures expressed in this Price List are of general application and do not depend on the size of the structures, their completion in one or pore phases (construction is part) or any local constrains and difficulties (ensuring circulation during construction, protection of adjacent structures, access difficulties, space restrains, extreme weather conditions etc.).

The works shall be executed according to the following ETEP, to the degree each one applies to each type of structure:

01-01-01-00:	Concrete production and transport
01-01-02-00:	Concrete casting and compaction
01-01-03-00:	Concrete curing
01-01-04-00:	Worksite concrete batching plant
01-01-05-00:	Concrete compaction by vibration
01-01-07-00:	Mass concrete
01-03-00-00:	Scaffolding
01-04-00-00:	Concrete formwork
01-05-00-00:	Formation of final surfaces in cast concrete without use of mortars

Price per cubic meter of ready concrete structure

AT: 170	**Rafts and blinding concrete from non-reinforced concrete C8/10** Item NET ΟΔΟ Β-29.1.1 (Revised per item ΟΔΟ-2511)

Rafts and blinding concrete from non-reinforced concrete C8/10, without formworks.

Euro In full: Fifty-nine and seventy cents
In numbers: 59.70

AT: 171	**Structures made of non-reinforced concrete C8/10** Item NET ΟΔΟ Β-29.1.2 (Revised per item ΟΔΟ-2521)

Structures to retain boulders in trenches, pipe anchoring, gradient configuration layers, bridge waterproofing protection layers, etc., using non-reinforced concrete C8/10, with or without the use of formworks.

Euro In full: Sixty
In numbers: 60.00

AT: 172	**Construction of gutters, trenches, etc., using non-reinforced concrete C12/15** Item ΝΕΤ ΟΔΟ Β-29.2.1 (Revised per item ΟΔΟ-2531)

Construction of solid bases for gutters and curbs, lined trenches of any shape (trapezoid, triangular, etc.), access ramps to roadside properties, bridge waterproofing protection layers, in-situ cast bases for city lighting masts, etc., made of non-reinforced concrete class C12/15.

Euro In full: Seventy-one and fifty cents
In numbers: 71.50

AT: 173	**Rafts, pipe sleeves, blinding layers – concrete class C12/15** Item ΝΕΤ ΟΔΟ Β-29.2.2 (Revised per item ΟΔΟ-2531)

Technical projects rafts, blinding layers, gradient configuration layers, sleeves and foundation of pipes and ducts (cement sewage pipes, cement-fibre ducts, iron tubes of any type, etc.), abrasion layers inside ducts, riverbed lining, etc., using C12/15 concrete.

Euro In full: Seventy-four and twenty cents
In numbers: 74.20

AT: 174	**Construction of gutters, trapezoid trenches, bridge waterproofing protection layers, etc., using C16/20 concrete** Item ΝΕΤ ΟΔΟ Β-29.3.1 (Revised per item ΟΔΟ-2532)

Construction of curbs and gutters, lined trapezoid and triangular trenches, riverbeds, riverbed lining, etc. using C16/20 non-reinforced or slightly reinforced concrete.

Euro In full: Seventy-seven and eighty cents
In numbers: 77.80

AT: 175	**Construction of walls, footways on bridges, pile wall lining, etc., using C16/20 concrete** Item NET ΟΔΟ Β-29.3.2 (Revised per item ΟΔΟ-2532)

Construction of reinforced walls (foundation, superstructure), footways on bridges, pile wall lining, etc., using C16/20 concrete.

Euro

In full: Eighty-six
In numbers: 86.00

AT: 176	**Construction of complete slabs, boneblack bases, thin-walled and square ducts using C16/20 concrete** Item NET ΟΔΟ Β-29.3.3 (Revised per item ΟΔΟ-2532)

Construction of horizontal bridge bearing elements supported on both ends, thin-walled or trapezoid ducts/culverts, using C16/20 reinforced concrete.

Euro

In full: Ninety-five
In numbers: 95.00

AT: 177	**Minor structures (manholes, rectangular trenches, etc.) using C16/20 concrete** Item NET ΟΔΟ Β-29.3.4 (Revised per item ΟΔΟ-2532)

Construction of covers, bottoms and walls of manholes, drainage channels and rectangular trenches using C16/20 concrete, reinforced and/or non-reinforced.

This item also includes slope lining in bridge abutment areas, which are either in-situ cast with fare-faced concrete as per the approved design, or are constructed using precast concrete elements.

When slopes are lined with precast elements, measurement shall be based on their total surface area and thickness, increased by 0.10 m. This increased thickness fully supports the additional works related to the construction, foundation and fixation of the precast elements (value of materials, labour, usage of machinery, erection and dismantling of scaffoldings, etc.), in accordance with the approved design, which on account of this are not measured separately.

Euro

In full: One hundred and four
In numbers: 104.00

AT: 178	**Construction of vaulted concrete ducts with concrete C16/20** Item NET ΟΔΟ Β-29.3.6 (Revised per item ΟΔΟ-2532)

Construction of vaulted ducts of any type, either straight or curved, along with their associated wing walls or drums, using C16/20 concrete.

Euro In full: Ninety-nine and fifty cents
In numbers: 99.50

AT: 179	**Construction of gutters, lined trenches, smoothening of bottoms, etc., using C20/25 concrete** Item NET ΟΔΟ Β-29.4.1 (Revised per item ΟΔΟ-2522)

Construction of curbs, gutters, solid embedment, lining of triangular and trapezoid trenches and riverbeds, bottom smoothening for normal flow, abrasion layers in ducts, layers for the configuration of falls and the protection of waterproofing on bridges, using C20/25 concrete.

This item also includes the trenches, curbs, gutters, etc., which are constructed using slip-form pavers of GOMACO type or similar)

Euro In full: Eighty-six
In numbers: 86.00

AT: 180	**Construction of square ducts with reinforced concrete C20/25** Item NET ΟΔΟ Β-29.4.2 (Revised per item ΟΔΟ-2551)

Construction of the complete box-shaped cross section ducts, right-angled or oblique, straight or curved, flat or with longitudinal inclination or stepped, -cover slab and raft- as well as of the associated wing-walls, drums, restrainers, anchors and cords, using reinforced concrete C20/25.

This item also finds application in the construction of box-shaped ducts with a free right-angled opening up to 8.00 m.

Euro In full: One hundred and nine
In numbers: 109.00

AT: 181	**Construction of vaulted ducts with C20/25 concrete** Item NET ΟΔΟ Β-29.4.3 (Revised per item ΟΔΟ-2551)

Construction of any type of box-shaped ducts, straight or curved, as well as of the associated wing-walls or drums, using C20/25 concrete.

Euro In full: One hundred and five
In numbers: 105.00

AT: 182	**Minor structures of C20/25 concrete** Item NET ΟΔΟ Β-29.4.4 (Revised per item ΟΔΟ-2551)

Construction of covers, bottoms and walls of manholes, drainage channels and rectangular trenches made of non-reinforced and/or reinforced concrete C20/25.

Euro In full: One hundred and nineteen
In numbers: 119.00

AT: 183	**Construction of stands, access plates, walls, parapet walls, etc., using C20/25 concrete** Item NET ΟΔΟ Β-29.4.5 (Revised per item ΟΔΟ-2551)

This item includes the following structures made of reinforced concrete class C20/25:

- stands (foundation and superstructure), wing walls connected to the stands and foundation slabs of box-shaped technical projects of any height
- walls (foundations and superstructure) of any height, including thin-walls
- vertical bridge abutments
- parapet walls, bearing pads and foundation beams for bridges
- capping beams and pile-wall lining

- access plates and footways on bridges, as well as the friction plates bearing type ΣΤΕ-1 parapets.

Euro In full: One hundred and nine
In numbers: 109.00

AT: 184	**Application of shotcrete outside underground projects** Item ΝΕΤ ΟΔΟ Β-29.7 (Revised per item ΥΔΡ-7017)

Shotcrete for open-air projects (not underground projects), which is sprayed to any surface and at any height from the work floor.

The unit rice includes:

- The cost for the preparation of the surface to be shotcreted
- The cost for spraying the shotcreted at any height from the work floor and on slopes of any sloping
- The cost for the procurement of the aggregates, cement, water and admixtures (steel fibres, polypropylene fibres and reinforcing mesh are excluded and paid separately)
- The cost for mixing and spraying with the proper equipment
- The cost for scaffolding, PPE and/or use of bucket vehicles or hydraulic system for directing the spray nozzle
- The cost for the removal of rebounds
- The cost for the mix designs, trial application, sampling and lab testing.

Price per cubic meter (m^3) of successfully applied shotcreted on the slope of the trench, to the thickness foreseen by the design.

Euro In full: One hundred and five
In numbers: 105.00

AT: 185	**Formwork or Metal formwork of flat surfaces** Item ΝΕΤ ΥΔΡ 9.01 (Revised per item ΥΔΡ 6301)

Simple formwork or metal formwork (moulds) of flat surfaces for concrete structures for any type of hydraulic works, such as open and closed ducts of rectangular cross-section, straight or curved, for bases, walls, slabs, manholes, etc., at any level over or underneath the work floor, in line with the design and ETEP 01-03-00-00 "Scaffolding (Falsework)" and 01-04-00-00 "Concrete formwork".

The unit price includes:

- Delivery on site the project of all materials required for the configuration of moulds (depending on the mould system applied)
- Works for the construction of the mould (formwork, metal formwork, plastic formwork and/or their combination), so as to respond to the geometry of the items to be concreted each time,

in line with the provisions of the design as regards dimensions, tolerances and requirements of surface finishes. The employment of specialised and non-specialized personnel, as well as all tools and other means and items of equipment required for the execution of works are also included herein
- Construction of any type of scaffolding and/or auxiliary structures required to support, fix and retain moulds
- Configuration of ballustrades, stairs, ramps and diabathrons to ensure easy and safe circulation of the concreting crew personnel
- Smearing of the formwork surface using materials to enable easy detachment
- Complete disassembly of the moulds at the time required by the pertinent design, as well as collection, package, loading and transportation of the materials
- Complete cleaning of concrete surfaces from protruding tightening fittings (metal pins or screws, wires, etc.)
- Reinstatement of any holes in the exposed concrete surfaces with cement mortar or cement materials, in line with the provisions of the design and/or the instructions of the Supervising authority
- Complete cleaning of the worksite area from any kind of materials remained from the construction of the scaffoldings and moulds, including the collection of useless nails
- Wear and depreciation of any kind of materials used for the construction of the scaffoldings and moulds. In no case is it allowed to use damaged or deformed materials (timber, metal elements, etc.)
- Expenses of any kind for the side transportation within the worksite area using not using mechanical means
- Expenses for the materials used for tightening, fixing and connection activities of any type.

Price per square meter (m^2) of surface in contact with concrete

Euro In full: Seven and sixty cents
In numbers: 7.60

AT: 186	**Formwork or Metal formwork of curved surfaces** Item ΝΕΤ ΥΔΡ 9.02 (Revised per item ΥΔΡ 6302)

Formwork or metal formwork (moulds) of curved surfaces (simple curvature) for concrete structures for any type of hydraulic works, such as cast in situ ducts of circular, oval or bonnet-shaped cross-section, circular manholes and other structures, at any level over or underneath the work floor, in line with the design and ETEP 01-03-00-00 "Scaffolding (Falsework)" and 01-04-00-00 "Concrete formwork".

The unit price includes:

- Delivery on site the project of all materials required for the configuration of moulds (depending on the mould system applied)
- Works for the construction of the mould (formwork, metal formwork, plastic formwork and/or their combination), so as to respond to the geometry of the items to be concreted each time, in line with the provisions of the design as regards dimensions, tolerances and requirements of surface finishes. The employment of specialised and non-specialized personnel, as well as all tools and other means and items of equipment required for the execution of works are also included herein

- Construction of any type of scaffolding and/or auxiliary structures required to support, fix and retain moulds
- Configuration of ballustrades, stairs, ramps and diabathrons to ensure easy and safe circulation of the concreting crew personnel
- Smearing of the formwork surface using materials to enable easy detachment
- Complete disassembly of the moulds at the time required by the pertinent design, as well as collection, package, loading and transportation of the materials
- Complete cleaning of concrete surfaces from protruding tightening fittings (metal pins or screws, wires, etc.)
- Reinstatement of any holes in the exposed concrete surfaces with cement mortar or cement materials, in line with the provisions of the design and/or the instructions of the Supervising authority
- Complete cleaning of the worksite area from any kind of materials remained from the construction of the scaffoldings and moulds, including the collection of useless nails
- Wear and depreciation of any kind of materials used for the construction of the scaffoldings and moulds. In no case is it allowed to use damaged or deformed materials (timber, metal elements, etc.)
- Expenses of any kind for side transportation within the worksite area using not using mechanical means
- Expenses for the materials used for tightening, fixing and connection activities of any type.

This item applies to rectilinear curved surfaces, while it does not apply in case pneumatic formwork is used.

Price per square meter (m^2) of surface in contact with concrete

Euro In full: Seventeen and ten cents
In numbers: 17.10

<u>Concrete production, transportation, casting, compaction and curing</u>

Production or supply, transportation on site the project, casting and compaction of concrete of any class or quality, according to the provisions of ELOT EN 206-1, the terms of the Concrete Technology Code and the Greek Reinforced Concrete Code (on condition they do not contradict the provisions of ELOT EN 206-1), as well as in line with the Design requirements.

It is stressed that the construction of moulds is separately measured on the basis of the applicable items of ΝΕΤ ΥΔΡ.

The price includes the following:

a. Supply and transportation to the project's location from any distance whatsoever of the concrete – if it is worksite concrete, or supply, loading/unloading of all required materials (aggregates, cement, water) for the concrete production – if the concrete is to be produced on site (worksite concrete), the idleness of vehicles transferring aggregates and concrete, the production of the mix and the transportation of concrete at the casting location.

It is stressed that the price, per concrete class, includes the expenses for the quantity of the cement required each time for achieving the foreseen characteristics (strength, workability,

etc.) on the basis of the granulometric aggregate grading, applied on a per case basis. In no case is the cement quantity integrated into the concrete measured separately.

The required granulometric grading of the aggregates and the content in cement for achieving the required characteristic strength of concrete is determined in the laboratory at the Contractor's cost.

b. Any type of additives (except fuidifiers) foreseen by the mix design – as approved on a per case basis – are measured separately.

c. Use of surface vibrators on concrete mass and the configuration of the upper level (final or temporary level) of the concreted items, according to the provisions of the project design

d. Idleness of the vehicles to transport the concrete, delivery on site, installation and return of the concrete pump, as well as collection, loading and removal of any spillage or redundant concrete that has been brought at the concreting location

e. The additional process for the configuration of special purposes flooring (e.g. industrial floor) is not included.

The prices of this item are applicable in general and do not depend on the size of the concrete structures (except for small remote technical projects, for which the price increase determined in item ΥΔΡ 9.13 applies), on their completion in one or more phases (partial execution) or on any local restrictions and difficulties (ensuring circulation during construction, space constraints, protection of adjacent structures, difficulties for the concrete to approach the worksite, concreting under extreme weather conditions, etc.)

The works will be executed in line with the following ETEPs:

01-01-01-00: Concrete production and transportation
01-01-02-00: Concrete casting and compaction
01-01-03-00: Concrete curing
01-01-04-00: Worksite concrete batch plants
01-01-05-00: Concrete compaction by vibration
01-01-07-00: Mass concrete

It is stressed that the addition of water to the concrete on site the project is strictly forbidden. Moreover, using the concrete 90 minutes after mixing is prohibited, unless additional retardants are used based on a special mix design.

Price per cubic meter (m^3) of element made of concrete, according to the dimensions foreseen by the design.

ΑΤ: 187	**For structures made of concrete class C8/10** Item ΝΕΤ ΥΔΡ 9.10.01 (Revised per item ΥΔΡ 6323)
Euro	In full: Sixty two In numbers: 62.00

ΑΤ: 188	**For structures made of concrete class C10/12** Item ΝΕΤ ΥΔΡ 9.10.02 (Revised per item ΥΔΡ 6325)

Euro In full: Sixty seven
In numbers: 67.00

ΑΤ: 189	**For structures made of concrete class C12/15** Item ΝΕΤ ΥΔΡ 9.10.03 (Revised per item ΥΔΡ 6326)

Euro In full: Seventy one
In numbers: 71.00

ΑΤ: 190	**For structures made of concrete class C16/20** Item ΝΕΤ ΥΔΡ 9.10.04 (Revised per item ΥΔΡ 6327)

Euro In full: Seventy six
In numbers: 76.00

ΑΤ: 191	**For structures made of concrete class C20/25** Item ΝΕΤ ΥΔΡ 9.10.05 (Revised per item ΥΔΡ 6329)

Euro In full: Eighty one
In numbers: 81.00

ΑΤ: 192	**For structures made of concrete class C25/30** Item ΝΕΤ ΥΔΡ 9.10.06 (Revised per item ΥΔΡ 6329)

Euro In full: Eighty six
In numbers: 86.00

ΑΤ: 193	**For structures made of concrete class C30/37** Item ΝΕΤ ΥΔΡ 9.10.07 (Revised per item ΥΔΡ 6331)

Euro In full: Ninety five
In numbers: 95.00

REINFORCEMENT

Concrete Steel Reinforcement

Supply and on-site transport of steel concrete reinforcement for any type of structures, cross section shapes and category, as per the design, forming the reinforcement according to the design, approaching the place of installation by any means, and its placement as per the reinforcement drawings. Execution of the works as per ETEP 01-02-01-00 "Concrete steel reinforcement "

Placement of the steel reinforcement shall take place only after the acceptance of the formwork or the concrete casting surface (e.g. sub-base of reinforced floors, etc.).

The concrete steel reinforcement is measured in kilograms, per steel class (steel B500A, B500C and structural meshes) as per the detailed Bar Bending Schedules.

If the above schedules are not incorporated into the approved design of the project, they shall be prepared at the Contractor's care and shall be submitted to the Service for review and approval before commencement of the reinforcement installation works.

The Bar Bending Schedules shall be compiled on the basis of the design drawings and shall contain the detailed dimensions of the bars, their diameter, the individual and total lengths of the bars, the individual weight per diameter and the individual and the total weights of bars, the partial weights per diameter and the overall weight. Upon delivery of the reinforcement, these Bar Bending Schedules shall be signed by the Service and the Contractor and shall serve as measurements of reinforcement.

The weight per linear meter of bar shall be calculated on the basis of table 3-1 of the Concrete Technology Standard (GTS) -2008, which is presented below. Defining the unit weight of the bars on the basis of individual weighing in absolutely unacceptable.

Nom. Diam. (mm)	Application Field					Nom Diam. (mm^2)	Nom mass/m (kg/m)
	Bars	Coils and straight bars		Electrowelded meshes and trusses			
	B500C	B500A	B500C	B500A	B500C		
5.0		√		√		19.6	0.154
5.5		√		√		23.8	0.187
6.0	√	√	√	√	√	28.3	0.222
6.5		√		√		33.2	0.260
7.0		√		√		38.5	0.302
7.5		√		√		44.2	0.347
8.0	√	√	√	√	√	50.3	0.395
10.0	√		√		√	78.5	0.617
12.0	√		√		√	113	0.888
14.0	√		√		√	154	1.21
16.0	√		√		√	201	1.58
18.0	√					254	2.00
20.0	√					314	2.47
22.0	√					380	2.98
25.0	√					491	3.85
28.0	√					616	4.83
32.0	√					804	6.31
40.0	√					1257	9.86

In addition to the supply, on-site transport, forming and placement of the reinforcement, the measured units also include the following in a converted form:

- Steady tightening of the bars at all bar crossings and not alternatively, using wire with a cross section proportional to the bar diameter and location, or by means of welding in case of in-situ cast piles.
- Supply of the tightening wire.
- Supply and installation of spacers to ensure the bar coverage by concrete as foreseen in the design, as well as supply of the turnbuckles (per ISO 15835-2).
- Sideways movement and handling of the reinforcement at any height from the work surface.
- Placement of support (pivots, stirrups) and special pieces for suspension that may be required (labour and materials).
- Bar wastage and wear during cutting and forming.

Price per kilogram of steel reinforcement placed according to the design.

AT: 194	**Concrete Steel Reinforcement B500A** Item ΝΕΤ ΟΑΟ Β-30.1 (Revised per item ΟΑΟ-2611)

Euro In full: Ninety-five cents
In numbers: 0.95

AT: 195	**Concrete Steel Reinforcement B500 C** Item ΝΕΤ ΟΑΟ Β-30.2 (Revised per item ΟΑΟ-2612)

Euro In full: Ninety-five cents
In numbers: 0.95

AT: 196	**Steel structural mesh B500C** Item ΝΕΤ ΟΑΟ Β-30.3 (Revised per item ΥΔΡ-7018)

Euro In full: Ninety-five cents
In numbers: 0.95

AT: 197	**Concrete Steel Fibres** Item ΝΕΤ ΟΑΟ Β-30.4 (Revised per item ΥΔΡ-7018)

Supply, transport and incorporation into the concrete, shotcreted or in-situ cast concrete of steel fibres per ELOT EN 14889-1, class I, made of cold formed steel wire, minimum tensile strength 1100 MPa, aspect ratio and mixing ratio in concrete according to the design.

The price includes the cost for the equipment and resources required for the uniform incorporation of the fibres into the concrete, so as to avoid clogging.

Price per kg of incorporated steel fibres class I per ELOT EN 14889-1, uniform for all fibre types of this class.

Euro In full: One and ninety cents
In numbers: 1.90

AT: 198	**Polypropylene Concrete Fibres** Item ΝΕΤ ΟΑΟ Β-30.5 (Revised per item ΟΙΚ-7914)

Supply, transport and incorporation into the concrete, shotcreted or in-situ cast concrete of polypropylene fibres per ELOT EN 14889-2, of a minimum tensile strength 320 N/mm^2, length and mixing ratio in concrete according to the design.

The price includes the cost for the equipment and resources required for the uniform incorporation of the fibres into the concrete, so as to avoid clogging.

Price per kg of incorporated polypropylene fibres per ELOT EN 14889-2, uniform for all fibre types of this class.

Euro In full: Six and seventy cents
In numbers: 6.70

AT: 199	**Supply and Installation of concrete steel reinforcement for hydraulic works** Item ΝΕΤ ΥΔΡ 9.26 (Revised per item ΥΔΡ 6311)

Supply and on-site transport of steel concrete reinforcement for any type of structures for hydraulic works, cross section shapes and category (steel B500A, B500C and structural meshes), as per the design, forming the reinforcement according to the design, approaching the place of installation by any means, and its placement as per the reinforcement drawings. Execution of the works as per ETEP 01-02-01-00 "Concrete steel reinforcement "

Placement of the steel reinforcement shall take place only after the acceptance of the formwork or the concrete casting surface (e.g. sub-base of reinforced floors, etc.).

The concrete steel reinforcement is measured in kilograms, per the detailed Bar Bending Schedules.

If the above schedules are not incorporated into the approved design of the project, they shall be prepared at the Contractor's care and shall be submitted to the Service for review and approval before commencement of the reinforcement installation works.

The Bar Bending Schedules shall be compiled on the basis of the design drawings and shall contain the detailed dimensions of the bars, their diameter, the individual and total lengths of the bars, the individual weight per diameter and the individual and the total weights of bars, the partial weights per diameter and the overall weight. Upon delivery of the reinforcement, these Bar Bending Schedules shall be signed by the Service and the Contractor and shall serve as measurements of reinforcement.

The weight per linear meter of bar shall be calculated on the basis of table 3-1 of the Concrete Technology Standard (GTS) -2008, which is presented below. Defining the unit weight of the bars on the basis of individual weighing in absolutely unacceptable.

Nom. Diam. (mm)	Application Field					Nom Diam. (mm^2)	Nom mass/m (kg/m)
	Bars	Coils and straight bars		Electrowelded meshes and trusses			
	B500C	B500A	B500C	B500A	B500C		
5.0		√		√		19.6	0.154
5.5		√		√		23.8	0.187
6.0	√	√	√	√	√	28.3	0.222
6.5		√		√		33.2	0.260
7.0		√		√		38.5	0.302
7.5		√		√		44.2	0.347
8.0	√	√	√	√	√	50.3	0.395
10.0	√		√		√	78.5	0.617
12.0	√		√		√	113	0.888
14.0	√		√		√	154	1.21
16.0	√		√		√	201	1.58
18.0	√					254	2.00
20.0	√					314	2.47
22.0	√					380	2.98
25.0	√					491	3.85
28.0	√					616	4.83
32.0	√					804	6.31
40.0	√					1257	9.86

In addition to the supply, on-site transport, forming and placement of the reinforcement, the measured units also include the following in a converted form:

- Steady tightening of the bars at all bar crossings and not alternatively, using wire.
- Supply of the tightening wire.
- Supply and installation of spacers to ensure the bar coverage by concrete as foreseen in the design, as well as supply of the turnbuckles (per ISO 15835-2), unless the contractual documents provide for a special measurement and payment thereof.
- Sideways movement and handling of the reinforcement at any height from the work surface.
- Placement of support (pivots, stirrups) and special pieces for suspension that may be required (labour and materials).
- Bar wastage and wear during cutting and forming.

Price per kilogram of steel reinforcement for hydraulic works placed according to the design.

Euro In full: Ninety cents
In numbers: 0.90

TREATMENT OF CONCRETE SURFACES – INSULATIONS - JOINTS

AT: 200 **Hard pressed plaster 1.5 cm thick for external surfaces**
Item NET ΟΔΟ Β-33
(Revised per item ΥΔΡ-6402)

Production of hard pressed plaster 1.5 cm thick with cement mortar of 650 kg and 900 kg cement CEM I (per ELOT EN 197-1), for external surfaces of vaulted culverts and/or other structures, as per the design and ETEP 08-05-01-04 '"Protective coatings of hydraulic concrete structures using in-situ or ready-mixed cement mortars''.

The unit price includes:

- The supply of all materials (sand, cement, etc.),
- Production of the mortar and plastering work in three layers; cement ratio for the first two layers (sprayed and smoothened) 650 kg of cement per m^3 of dry sand, and for the third hard pressed layer shall have a cement ratio of 900 kg of cement per m^3 of dry sand
- Coating with cement to achieve a smooth flat or curved surface.

Price per square meter.

Euro In full: Seven
In numbers: 7.00

AT: 201 **Hard pressed plaster 2.0 cm thick for the external surfaces of sewers and manholes/sumps**
Item NET ΟΔΟ Β-34
(Revised per item ΥΔΡ-6403)

Production of hard pressed plaster 2.0 cm thick with cement mortar of 650 kg and 900 kg cement CEM I (per ELOT EN 197-1), for external surfaces of sewers and manholes/sumps, as per the design and ETEP 08-05-01-04 "Protective coatings of hydraulic concrete structures using in-situ or ready-mixed cement mortars".

The unit price includes:

- The supply of all materials (sand, cement, etc.),
- Production of the mortar and plastering work in three layers; cement ratio for the first two layers (sprayed and smoothened) 650 kg of cement per m^3 of dry sand, and for the third hard pressed layer shall have a cement ratio of 900 kg of cement per m^3 of dry sand
- Coating with cement to achieve a smooth flat or curved surface.

This item is not applicable to the manholes/sumps with a lump sum unit price for their entire production sequence, as per the respective items of the price list.

Price per square meter

Euro In full: Eight and fifty cents
In numbers: 8.50

AT: 202	**Insulation by applying two coats of asphalt** Item NET ΟΔΟ Β-36 (Revised per ΟΔΟ-2411)

Protective coating of concrete or mortar surfaces, at any level from the work surface, using asphalt emulsion (black bitumen paint) using a roller, brush or spray gun.

The unit price includes:

- Through cleaning of the surface from loose materials and pollutants using wire brush or compressed air,
- Application of the primer coat thinned with water at a ratio of 1:1 or using the material recommended by the manufacturer, with a coverage of 0.10 -0.15 lt/m^2,
- Use of the required scaffolding
- Application of the asphalt emulsion in two coats, minimum coverage of 0.15 lt/m^2 per coat.

Price per square meter

Euro In full: One and forty-five cents
In numbers: 1.45

AT: 203	**Sealing the concrete surface with asphalt membrane on asphalt concrete blinding** Item NET ΟΔΟ Β-37.1 (Revised per item ΟΔΟ-2412)

Concrete surface sealing with plastomer asphalt membrane reinforced with polyester fibres, minimum weight 4,50 kg/m^2, as per ETEP 08-05-01-02 "Waterproofing of concrete structures using asphaltic membranes" on blinding asphalt concrete type ΑΣ10, maximum grain size 10 mm, as per ETEP 05-03-11-04, average thickness 3 cm.

The unit price also includes:

- All kinds of incorporated materials and consumables, as well as their transport on site the project
- The personnel, equipment and resources required for the execution of the works
- Through cleaning of the concrete surface using wire brush, motorized broom or compressed air
- Application of the bonding coat on the concrete surface
- Casting and compaction of the asphalt concrete blinding, class ΑΣ10

- Application of primer coat with asphalt emulsion (coverage approx. 0.40 kg/m^2) and when fully dried up, coating with asphalt clue, compatible with the primer coat (coverage approx. 2.5 kg/m^2)
- Placement and bonding of the asphalt membrane with a blowtorch
- Membrane overlapping

Price per square meter

Euro In full: Nine and fifty cents
In numbers: 9.50

AT: 204	**Sealing concrete surfaces with two layers of asphalt fabric and protection mortar** Item NET ΟΔΟ Β-37.2 (Revised per item ΟΔΟ-2412)

Sealing concrete surfaces with two layers of plastomer asphalt membrane (asphalt cloth), reinforced with polyester fibres, minimum thickness 2 mm, and with a layer of protective screed 2 cm thick, 600 kg of cement per m^3, according to ETEP 08-05-01-02 'Waterproofing of concrete structures using asphaltic membranes".

The unit price incorporates:

- All kinds of incorporated materials and consumables and their on-site transport
- Personnel, equipment and resources required for the execution of the works
- Through cleaning of the concrete surface using wire brush, motorized broom or compressed air
- Application of primer coat with asphalt emulsion (coverage approx. 0.40 kg/m^2) and when fully dried up, coating with asphalt clue, compatible with the primer coat (coverage approx. 2.5 kg/m^2)
- Placement and bonding of the asphalt membrane with a blowtorch, in two crossing layers
- Production and placement of the screed for the protection of the membrane
- Membrane overlapping.

Price per square meter.

Euro In full: Eleven
In numbers: 11.00

AT: 205	**Waterproofing drainage channels bottom with geomembrane** Item NET ΟΔΟ Β-42 (Revised per item ΟΔΟ-2412)

Waterproofing the bottom and slopes of drainage channels with geomebranes made of PVC, polyethylene, propylene, resistant to ultraviolet radiation, thickness ≥ 1.5 mm, bonded according to the manufacturer's recommendations.

If not otherwise specified in the design, the geomembrane shall have the following features:

- resistance to tear ≥ 300 N/mm per ISO 34-1
- resistance to puncture ≥ 3.3 kN per ELOT EN ISO 12236 E2
- tensile strength at break ≥ 42 N/mm per EN ISO 527-3
- Carbon Black Content ≤ 3% per ELOT ISO 11358
- water absorption ≤ 0.1 % per EN ISO 62 E2
- brittleness at -40°C without appearance of cracks, per ELOT EN 495-5

The unit price includes:

- Supply of the membrane and bonding materials, as well as transport to the location of incorporation,
- Carefully laying of the membrane,
- Membrane bonding using a bonding agent suitable for the membrane material, or thermal bonding,
- Membrane sheet wastage and overlapping.

Price per square meter of surface covered with geomembrane.

EURO In full: Five and forty cents
In numbers: 5.40

AT: 206	**Sealing horizontal joints with asphalt mastic applied in hot** Item NET ΟΔΟ Β-43.1 (Revised per item ΥΔΡ-6370)

Sealing technical projects' horizontal joints with minor shifting (culverts, line channels, flooring layers, etc.) with elastomer asphalt mastic (mixture of refined asphalt, synthetic elastics, resins, plasticizers and aggregates -- rubber asphalt) applied in hot.

The unit price includes:

- Thorough cleaning of the joint with metal-blasting or wire-brush,
- Application of a bonding primer, compatible with the asphalt mastic,
- Heating and careful application of the mastic without spreading it outside the joint gap, in a manner that its final surface lays 3-5 mm below the concrete surface.

Sealing with hot asphalt mastic requires completely dry concrete surfaces and ambient temperature higher than 5°C.

This method is suitable for joints with a width of up to 25 mm, while the filling depth must not exceed 50 mm (recommended filling depth 25 mm).

The remaining joint gap is recommended to be filled using flexible high density particles, while all submerged elements must also be fitted with waterstops. These works are priced separately on the basis of the relevant item of the Price List.

Price per linear meter of sealed joint.

Euro In full: Three and twenty cents
In numbers: 3.20

AT: 207	**Sealing vertical and oblique joints with plastomer asphalt mastic** Item ΝΕΤ ΟΔΟ Β-43.2 (Revised per item ΥΔΡ-6370)

Sealing technical projects' horizontal joints with minor shifting (culvert walls, retaining walls, foundation members, cable and pipe routing openings in concrete elements, etc., with elastomer asphalt mastic applied in hot.

The unit price includes:

- Thorough cleaning of the joint lips and gap with metal-blasting or wire-brush,
- Masking the lips of the joint with tape (if required in order to avoid staining the concrete surface),
- Application of a bonding primer, compatible with the asphalt mastic,
- Heating the mastic according to the manufacturer's recommendations
- Application of the mastic in the gap using a spatula (the material is thick and pliable).

Sealing with hot asphalt mastic requires completely dry concrete surfaces and ambient temperature higher than 5°C.

This method is suitable for joints with a width of up to 25 mm, while the filling depth must not exceed 50 mm (recommended filling depth 25 mm).

The remaining joint gap is recommended to be filled using flexible high density particles, a material priced separately on the basis of item Β-43.3 of the Price List.

Price per linear meter of sealed joint.

Euro In full: Three and sixty cents
In numbers: 3.60

AT: 208	**Sealing of joints with waterstop** Item NET ΟΔΟ Β-44 (Revised per item ΥΔΡ-6373)

Supply and installation of elastic waterstop on construction joints of concrete structures, applied to the construction elements on both sides of the joint, made of neoprene or PVC, straight, with one central swelling, 240 mm wide, applied at any location and type of structure, according to ETEP 08-05-02-02 "Waterstops for concrete joints".

The unit price includes:

- Supply and on site transport of the waterstop and its pre-formed special pieces,
- Cutting, placement and fixation of the waterstop on the concrete reinforcement bars,
- Bonding the sections and special pieces of the tape so as to achieve a continuous waterstop,
- Special configuration of the formworks as required to allow passing (mandatorily) of the protruding part of the waterstop.

If the design foresees the installation of waterstop with a width other than the conventional width of 240mm, this waterstop shall be measured by converting its length to an equal length of 240mm waterstop, as specified in the general terms of this Price List.

Price per linear meter of elastic, 240mm waterstop for joint sealing

Euro In full: Eleven and thirty cents
In numbers: 11.30

AT: 209	**Geotextiles for underdrains** Item NET ΟΔΟ Β-64.1 (Revised per item ΟΙΚ-7914)

Supply, transportation and installation of non-woven geotextile made of polypropylene fibres, for the construction of street linear underdrains and drains behind walls or bases, thickness: ≥1.0 mm (per ELOT EN 9863-1), minimum weight: 150 gr/m^2 (per ELOT EN ISO 9864), tensile strength: ≥9 kN/m (per ELOT EN ISO 10319), elongation at break ≥ 50% (per EN ISO 10319), puncture resistance: ≥1500 N (per ELOT EN 12236), in line with the specifications of the design and the National Technical Specification ETEP 08-03-03-00.

The unit price will include:

- Supply of the geotextile onsite the project,
- Cutting the geotextile at the appropriate dimensions, placing the geotextile near the trench and laying it into the trench,

- Temporary retaining of the geotextile, configuration of the underdrain cross-section in line with the design (using wooden struts, panels, etc. without sharp edges), closing the underdrain's cross-section through the foreseen geotextile overlapping and sewing of adjacent sheets.

The need to use the appropriate equipment for the installation of the foreseen materials of the single-stage filter for preventing wear to the installed geotextile.

Price per square meter of underdrains surface covered with geotextile.

EURO In full: One and thirty-five cents
In numbers: 1.35

Flexible tapes of indoor type (Waterstops) for waterproofing concrete joints

Flexible tapes of indoor type (Waterstops) for waterproofing concrete joints, PVC-P (plasticized polyvinyl chloride) or NBR (nitrile butadiene rubber: synthetic rubber), according to DIN 18541, or vulcanized elastomer material in accordance with DIN 7865-2, or polyethylene (PE), integrated and fixed approximately in the middle of the member's cross section (channel walls and bottoms, tanks, cast situ sewers made of concrete, etc.), according to the design, the instructions of the manufacturer and ETEP 08-05-02-02 "Waterstops for concrete joints (waterstops)".

The unit price includes the supply of elastic tapes, the special configuration of the formwork to keep the tape intact during concreting, the juxtaposition, welding or cold vulcanization of joints, any kind of special items, welding and fixing materials, as well as the depreciation and wear of tapes.

Price per linear meter (mm) of tape, fully placed.

AT: 210	**For 160 mm. wide tapes** Item NET ΥΔΡ 10.02.01 (Revised per item ΥΔΡ 6373)

EURO In full: Twelve and forty cents
In numbers: 12.40

AT: 211	**For 240 mm. wide tapes** Item NET ΥΔΡ 10.02.02 (Revised per item ΥΔΡ 6373)

EURO In full: Sixteen and sixty cents
In numbers: 16.60

AT: 212	**For 300 mm. wide tapes** Item NET ΥΔΡ 10.02.03 (Revised per item ΥΔΡ 6373)

EURO In full: Twenty one and forty cents
In numbers: 21.40

Joint sealing of nominal gap 10mm using elastomeric material

Sealing of joints for the lining of channels, box-shaped sewers and any kind of concrete members using elastomer material highly resistant to various environmental conditions (temperature variations, exposure to ultraviolet radiation etc.), cold-applied, according to the design, the instructions of the supplier of the material and ETEP 08-05-02-05 " Concrete structures joint sealing using elastomeric materials".

The unit price includes the following:

- Supply of polyurethane mastic base and the respective primer, if required
- Supply of clogging pad (cord) made of extruded polyethylene foam to clog the gap of the joint (when no flexible filler bands of Flexcell type are placed)
- Thorough cleaning of the joint and preparation of the surface to be clean, dry, without any weathered parts
- Application of the primer and preparation and application of the sealing material in accordance with the supplier's instructions.

This unit price is adapted depending on the joint span.

Price per linear meter (mm) for the full sealing of a joint of nominal gap 10mm.

AT: 213	**Joint Sealing of 10mm span using polyurethane-based materials** Item ΝΕΤ ΥΔΡ 10.03.01 (Revised per item ΥΔΡ 6373)

EURO In full: Fourteen and thirty cents
In numbers: 14.30

AT: 214	**Joint Sealing of 10mm span using polysulfide-based materials** Item ΝΕΤ ΥΔΡ 10.03.02 (Revised per item ΥΔΡ 6373)

EURO In full: Seventeen and ten cents
In numbers: 17.10

AT: 215	**Joint Sealing of 10mm span using acrylic-based materials** Item ΝΕΤ ΥΔΡ 10.03.03 (Revised per item ΥΔΡ 6373)

EURO In full: Eleven and forty cents
In numbers: 11.40

AT: 216	**Perforated plastic drainage pipes D160 mm lined with geotextile** Item ΝΕΤ ΥΔΡ 10.24 (Revised per item ΥΔΡ 6620.1)

Perforated drainage pipes made of PVC, PE (polyethylene) or PP (polypropylene) with 160mm inner diameter, lined with geotextile (sock) delivered in the form of a ready-made closed mantle and applied (worn) on the pipe on site the Project.

The unit price includes the supply of perforated pipes and the special fittings (splices, angles, T-shaped items etc.) of the configured geotextile mantle and its splicing/fixing materials, the assembly of the perforated pipeline, in accordance with the supplier's instructions and its installation at the locations foreseen by the design.

Price per linear meter (mm).

EURO In full: Fourteen and thirty cents
In numbers: 14.30

AT: 217	**Application of epoxy welding material over an already existing concrete surface** Item ΝΕΤ ΥΔΡ 10.25 (Revised per item ΥΔΡ 6370)

Application of two-component welding epoxy resin over an already existing concrete surface to ensure its adhesion with the concrete to be cast, at the locations specified in the design.

The unit price includes the following:
- Abrasing the existing concrete surface in order to improve the special contact surface and remove the loose materials using a wire brush or compressed air
- Supply of resin components, mixing and applying it on the surface of the already existing concrete using a brush, roll or spray, in accordance with the supplier's instructions (mixing proportions, consumption per surface unit etc.)

Price per square meter (m^2) of the application surface

EURO In full: Eleven and forty cents
In numbers: 11.40

ΑΤ: 218	**Joints sealing using a bentonite expansive tape** Item ΝΕΤ ΥΔΡ 10.30 (Revised per item ΥΔΡ 6373)

Sealing of joints for when concreting is discontinued (construction joints), of surfaces between new and old concrete surfaces and of the gap of pipe routing holes through concrete items using expansive waterstops consisting of a bentonite mix with flexible exterior cover made of woven geotextile or similar enclosure.
It includes the supply, delivery on site and installation of the sealing tape according to the supplier's instructions at the locations foreseen by the design.
Note that the bentonite waterstops are not proposed as a solution in order to seal the expansion-contraction joints.

Price per linear meter of tape (mm), without measuring the longitudinal splicing.

EURO In full: Eight and sixty cents
In numbers: 8.60

URBAN ROADWORKS

AT: 219	**Precast concrete curbs** Item NET ΟΔΟ Β-51 (Revised per item ΟΔΟ-2921)

Installation of curbs made of precast concrete class C20/25, 0.15 m wide and 0.25 to 0.30 m high, on the basis of the detail drawings of the design, by cutting straight or curved, per ELOT EN 1340, for constructing traffic islands, sidewalk, intersection, etc., produced at a batching plant by vibration and compaction; in-situ production with custom-made formwork is strictly ruled out.

Execution of works in line with ETEP 05-02-01-00 "Curbs, gutters and roadside concrete lined drainage ditches".

The unit price includes:

- Supply and transport of the curbs and all required materials, not including the concrete of the base plate,
- Placing them on a straight or curved line at the foreseen in the drawing location (in terms of layout and elevation), using pieces with a smooth surface of a length not less than 0.50 m, fixing the curbs on place by constructing a continuous prism of a cross section 0.10x0.20 m made of reinforced concrete class C8/10, embedment of the curbs and filling the joints using cement mortar of 650 kg cement per m^3 of sand.

Price per linear meter of a fully installed curb, without its base, which is measured separately.

Euro	In full: Eight In numbers: 8.00

AT: 220	**Slab paving of sidewalks, traffic islands, etc.** Item NET ΟΔΟ Β-52 (Revised per item ΟΔΟ-2922)

Paving sidewalks, traffic islands, etc., as per ELOT EN 1339 with cement slabs 0,50 x 0,50 m, 5 cm thick, anti-slip surface of white cement, according to the design and ETEP 05-02-02-00 "Paving slabs and cobblestones for pedestrian areas".

The unit price includes:

- Supply and in-situ transport of the cement slabs and other material for slab fixation and joint filling,
- Placement of the cement slabs on lime/cement screed 2,5 - 3,0 cm thick, made at a ration of one part of lime, five parts of pure sand and 180 kg of cement / m^3,
- Joint filling with white cement/marble mortar at a ratio of 650 kg cement / m^3 of mortar, as well as cleaning of the joints.

Price per square meter of ready paved surface.

Euro In full: Eleven and forty cents
In numbers: 11.40

AT: 221	**Concrete slabs paving, 40x40 cm** Item NET ΟΔΟ Β-81 (Revised per item ΟΔΟ-2922)

Slab-paving of sidewalks, traffic isles and public outdoor areas using 40x40 cm coloured slabs, level or ribbed, made of concrete, per ELOT EN 1339.

Paving slabs for sidewalks, public squares and public areas using anti-skid slabs made of concrete, colored, of standard dimensions 40x40 cm, 3 cm thick.

The unit price will include:

- supply, transportation and delivery on site of the project of slabs packaged in pallets
- preparation and laying of the grouting mortar (labour and materials)
- installation of slabs in line with the design layout (including cutting items for full coverage of the foreseen surface using special cutting tools),
- joint filling, using grout at the appropriate colour (materials and labour),
- full cleaning of the slab-paved surface, collection for final disposal at any distance of any redundant construction materials, crushed slabs, packaging material, etc.

The installation of reflective tapes at the perimeter of the slab paving for protection until hardening of the grout mortar is also included.

Price per square meter (m^2) of slab-paving work, completed as per the above.

EURO In full: Fourteen and thirty cents
In numbers: 14.30

AT: 222	**Configuration of crossings for persons with disabilities in sidewalks and traffic isles** Item NET ΟΔΟ Β-82 (Revised per item ΟΔΟ-2922)

Full configuration of crossings/accesses for persons with disabilities in existing sidewalks and traffic isles.

The unit price will include:

- dismantling of the existing slab paving and curbs
- full reconstruction thereof (materials and labour: slabs, grouting mortar, joint fillers, transportation of materials on site the project, execution of works, cleaning of the works execution area, collection and disposal of redundant material and debris), in line with the depressed level foreseen by the design; the arrangement, type and form of the slabs must be fully compliant with the existing slab paving.

The installation of reflective tapes at the perimeter of the slab paving until hardening of the grout mortar is also included.

Lump Sum Price (pc) of crossing, completed as per the above, for persons with disabilities.

EURO In full: Ninety-five
In numbers: 95.00

AT: 223	**Concrete tree edging** Item NET ΟΔΟ Β-83 (Revised per item ΟΔΟ-2921)

Configuration of concrete edging using concrete precast segments.

The unit price will include:

- supply and installation of precast concrete segments - class C16/20
- embedment mortar
- full alignment thereof with the surrounding slab paving
- careful removal of excavation spoils, material remains, etc.

Price per a fully configured edging, as specified above (piece), irrespective of dimensions.

EURO In full: Nineteen
In numbers: 19.00

AT: 224	**Adjusting the level of an existing manhole on a sidewalk under reconstruction** Item NET ΟΔΟ Β-85 (Revised per item ΟΔΟ-2548)

Careful dismantling of the frame intended for housing the cover of an existing manhole, so as to prevent damage, adjusting the height of the manhole walls by dismantling or through application of a layer of powerful cement mortar, embedding the housing frame at the required level with ± 5mm precision and careful application of joint filler in line with the surrounding new slab paving. The cement mortar for final surface configuration around the housing frame shall be prepared with sea sand to avoid cracking or, alternatively, epoxy mortar will be applied.

Replacing both cover and the manhole's housing frame is not included in the price. Any required new cast iron covers will be measured separately on the basis of the pertinent items of the price list.

Price per item of completed work (piece) for manholes with a cover surface up to 0.50 m^2. For greater manholes, the price shall be adjusted by multiplying with coefficient E / 0.50, where E is the surface of the manhole based on the cover's outer dimensions.

EURO In full: Thirty-three and thirty cents
In numbers: 33.30

AT: 225	**Retrofitting of paving slabs on sidewalks, traffic islands or squares above underground utility trenches** Item ΝΕΤ ΥΔΡ 4.10 (Revised per item ΥΔΡ 6804)

Retrofitting of paving slabs on a sidewalk, traffic island or square, which have been dismantled for the construction of underground utility networks, using cement slabs, paving stones, stone units, marbles, etc. that have been carefully dismantled without causing any damage / wear on them and their filling up using materials of the same texture, colour and dimensions, in order to ensure a unified form of the overall paving of the area; as to the remaining items, the execution of works must adhere to ETEP 08-06-08-03 "Retrofitting of concrete paving slabs along constructed underground utility".

The unit price includes the following:

a. Supply and on site transportation of the additional materials required for slab paving, whose type and form must be the same as the existing ones

b. Supply and on site transportation of the materials required for the reinstatement of the sub-base at its prior condition: sand for the foundation or concrete bedding (with or without reinforcement mesh)

c. Construction of the foundation sub-base and placement of slabs, paving stones, stone units, etc., so that both joints and architectural patterns (alteration of colours or texture of slabs, etc.) be fully harmonized with the surrounding slab paving. It is stressed that, in the boundaries of the reinstatement zone, solid (in one piece) slabs will be used (id joint cutting toll has been used for delimiting the zone of the trench, slabs that have been cut will be replaced by solid ones during retroffiting).

Price per square meter (m^2) for complete re-construction and retrofitting of sidewalk slab paving.

EURO In full: Twenty three and eighty cents
In numbers: 23.80

AT: 226	**Reinstatement of sidewalk, made of non-reinforced concrete above underground utility trenches** Item ΝΕΤ ΥΔΡ 4.11 (Revised per item ΥΔΡ 6804)

Reinstatement of sidewalk, made of non-reinforced concrete, which has been dismantled for the construction of underground utility networks at its prior condition.

The unit price includes the following:

a. Supply and on site delivery of concrete class C12/15

b. Levelling and compaction of the concrete bedding surface and its sprinkling prior to concreting

c. Cleaning of slopes on either side of the trench from loose materials

d. Casting and compaction of concrete to be used for the reinstatement of the sidewalk, whose thickness will be equal to the dismantled concrete and configuration of the final surface, so as to be fully harmonized with the surround slab paving (textures, continuation of scotia, joints, etc.).

Price per square meter (m^2) for retrofitting of sidewalk made of concrete.

EURO In full: Nine and fifty cents
In numbers: 9.50

GROUP C:
METAL STRUCTURES – FITTINGS, MANHOLES, PIPING – NETWORKS, NETWORK - PIPING ITEMS, REPAIR – MAINTENANCE WORKS, OTHER NETWORK STRUCTURES

METAL STRUCTURES

AT: 227 **Galvanized iron articles**
Item NET ΟΔΟ Β-48
(Revised per item ΟΔΟ-2672)

Construction of frames, covers, grids, anchors and other plain iron parts for manholes/sumps, as per the design, using class S235J steel profiles, per ELOT EN 10025, hot-dip galvanized per ELOT EN ISO 1641.

The unit price includes:

- Supply of the required steel profile cross sections and their forming according to the drawings (cutting, chamfering, drilling, welding, etc.) at a plant equipped with the proper machines
- Hot-dip galvanize of the ready product
- The required operation and fixing accessories (bolts, nuts, etc.), all hot-dip galvanized
- Transport of the ready made products at the installation location
- Drilling of holes to existing concrete elements for fixing the galvanized items
- Production and spreading of the necessary mortal for the seating and fixation of the items
- Placement and fixing the galvanized items at the places and levels foreseen in the design

This item is also used to price the reinforcement bars for the connection of the slabs or bearing elements to the end abutments.

Price per kilogram of galvanized iron parts fully installed.

Euro In full: Two and twenty cents
In numbers: 2.20

AT: 228 **Cast iron gully tops**
Item NET ΟΔΟ Β-49
(Revised per item ΥΔΡ-6752)

Supply and installation of cast iron gully tops with the associated base frames, of any dimensions, per ELOT EN 124, bearing capacity D400, according to the design and Project Construction Standards.

Relevant ETEP: 08-07-01-01 "Grey cast iron gully tops"

The unit price includes:

- Supply of the cast iron items,
- Transport in site the project, loading/unloading with proper means (e.g., hydraulic jig-boom crane),
- Preparation of the frame seating surface, adjustment of the required final level of the gully top using durable pads, and fixing the frame with the use of strong mortar.

Price per kg of installed cast iron gully tops and frames.

Euro In full: One and twenty cents
In numbers: 1.20

AT: 229	**Steps made of mild cast iron** Item NET ΟΔΟ Β-50 (Revised per item ΥΔΡ-6753)

Supply and installation of steps made of mild cast iron for any type of manholes, as per the design, the Projects Construction Standards (PCS) and ETEP 08-07-01-05.

The unit price includes:

- The supply of the steps,
- Drilling of holes on the manhole walls for the placement of the steps (or extraction of the polystyrene pieces inserted during concreting for fitting the steps, and thorough cleaning of the hole)
- Embedment of the steps using mortar, or alternatively placement of the steps at the appropriate position during manhole concreting.

Price per kilogram of steps made of mild cast iron.

Euro In full: One and ninety cents
In numbers: 1.90

AT: 230	**Ductile iron tops** Item NET ΥΔΡ 11.01.02 (Revised per item ΥΔΡ 6752)

Gully tops per ELOT EN 124, with CE marking, bearing capacity category D as provided for by the design (depending on the installation location).
Supply and on site transportation of the gully tops and frames, precise adjustment of the level and gradient of the top using hard pads and the embedment of the frame in concrete.
Measurement based on the supplier's lists (measurement by weighing is not accepted).

Price per kilogram (kg) of top and its frame, irrespective of its bearing capacity.

Euro in full: Two and seventy cents
In numbers: 2.70

AT: 231	**Ductile iron drainage gratings** Item NET ΥΔΡ 11.02.04 (Revised per item ΥΔΡ 6752)

Metallic drainage gratings with their respective frame, fully installed in accordance with the design details drawings.
Supply and on site transportation of the grating and its frame, the precise adjustment of the level and gradient of the grating by using hard pads and the embedment of the frame in screed, non shrinkable mortar or epoxy mortars.
This item is applicable both for new and existing structures (replacement of gratings).
Measurement: a) for the standard industrial type gratings, based on the manufacturer's list of weights, b) for the welded gratings, based on detailed calculations of steel profile bars and steel profiles of other shapes utilized in the manufacturing. Measurement by weighing is not accepted.
Ductile iron drainage gratings (spheroid graphite cast iron, ductile iron) with bearing capacity D, as provided for by the design, per ELOT EN 124, according to the Greek Technical Specification (ETEP) "Ductile iron gully tops".

Price per kilogram (kg) of the grating and frame.

Euro in full: Two and seventy cents
In numbers: 2.70

AT: 232	**Cast iron steps** Item NET ΥΔΡ 11.03 (Revised per item ΥΔΡ 6753)

Supply and installation in manholes of any type of cast iron steps (made of grey cast iron or spheroid graphite cast iron), in accordance with the design and ETEP 08-07-01-05 "Manhole steps".

Fixing in the holes foreseen during concreting of the manhole or in holes drilled on the manhole walls, using cement mortar or epoxy mortar.

Price per kilogram (kg), based on the supplier's list of weights.

Euro in full: Two
In numbers: 2.00

SUMPS

Standard stormwater drainage and sewage sumps (Works Construction Standards)

Sumps and manholes for stormwater sewage networks or underdrains, prefabricated in part or in total, or cast in-situ, in line with the specifications of the design and the approved Works Construction Standards, connected to the inlet/outlet ducts and ready-to-use.

The unit price will include:

- Supply and transportation onsite of the required materials, prefabricated components and fittings for full configuration of the manholes, as per the Works Construction Standards
- The personnel, the equipment and the means necessary for fully constructing the sumps/manholes and for handling prefabricated components (the use of the appropriate crane is imperative)
- Excavation of the supporting trench at any type of soil
- Installation and fixing of the prefabricated components and/or installation of reinforcement, construction of formwork and pouring of concrete
- Configuring and drilling of holes for the connection of pipes
- Connection of pipes and sealing of the void between holes and pipes with non- shrink cement grout
- Supply and embedment of the manhole steps
- Supply and installation of grids, covers and frames
- Re-backfilling the trench with crashed quarry material
- Onsite concreting of part of the sumps for adjusting their crown level at the street grade or camber.

The unit price will not include:

- the installation of steel reinforcement at sumps, type Φ1N
- on site concreting of part of the sumps for increasing their inner height over 1200 mm
- the construction of a neck, h ≥1.00 m, at sewerage or underdrains manholes.

Price per piece of fully constructed sump/manhole.

AT: 233	**Sump, type Φ1N (Works Construction Standards)** Item ΝΕΤ ΟΔΟ Β-66.1 (Revised per item ΟΔΟ-2548)

EURO In full: Three hundred and sixty-two
In numbers: 362.00

AT: 234	**Sumps between slopes (Works Construction Standards)** Item NET ΟΔΟ Β-66.2 (Revised per item ΟΔΟ-2548)

EURO In full: Four hundred ninety-seven and sixty-two cents
In numbers: 497.62

AT: 235	**Sewerage manhole, type Φ10 (D=0.40 m or 0.60 m (Works Construction Standards)** Item NET ΟΔΟ Β-66.3 (Revised per item ΟΔΟ-2548)

EURO In full: Eight hundred and ten
In numbers: 810.00

AT: 236	**Sewerage manhole, type Φ10 (D=0.80 m) (Works Construction Standards)** Item NET ΟΔΟ Β-66.4 (Revised per item ΟΔΟ-2548)

EURO In full: One thousand and fifty
In numbers: 1,050.00

AT: 237	**Sewerage manhole, type Φ11 (D=1.00 m) (Works Construction Standards)** Item NET ΟΔΟ Β-66.5 (Revised per item ΟΔΟ-2548)

EURO In full: One thousand five hundred and forty
In numbers: 1,540.00

AT: 238	**Sewerage manhole, type Φ12 (D=1.20 m) (Works Construction Standards)** Item NET ΟΔΟ Β-66.6 (Revised per item ΟΔΟ-2548)

EURO In full: Two thousand forty
In numbers: 2,040.00

AT: 239	**Underdrains manhole (Works Construction Standards)** Item NET ΟΔΟ Β-66.7 (Revised per item ΟΔΟ-2548)

EURO In full: Three hundred seventeen
In numbers: 317.00

Typical air relief valve manholes

Complete structure of a typical air relief valve manhole at any location of the project and regardless of the depth of the line of pipe from surface, according to the applicable Greek Technical Specifications (ETEP) per individual scope of works.

The unit price shall include the following:

- Any investigation trenches required for identifying ducts and networks;
- The required excavations executed by any means (mechanical means or manual excavation) in any type of soil, accompanied by any work that may be required for retaining the slopes of the trench, as well as loading-unloading of redundant excavation spoil and their transportation at any distance therefrom;
- The required dismantling works;
- Pumping works that may be required;
- The required soil layers improvement for the manhole's bedding;
- Non-reinforced and reinforced concrete structures forming the manhole (concrete of any category, steel-reinforcement, formwork, admixtures) according to the drawings of the Design;
- The required inner layout of the manhole;
- Asphalt coating insulation for the outer slopes of the manhole;
- The supply and installation of the required cast iron risers and top of the manhole, in line with the drawings of the Design;
- The structure of the sewer force main towards the appropriate discharging item (pipe, special fittings, connection and embedment of pipe);
- The supply and installation of the ventilation pipe (whenever provided for);
- Backfilling of the trench's gab using crushed rock;
- Reinstatement of the trench's surface to its prior condition (road pavement or sidewalk);
- Any other work or individual structure required for the completion of the manhole, in line with the drawings of the Design.

The price does not include the air relief valves and the gate valves, which are compensated on the basis of the respective Price List items.

Price per piece (pc) of a constructed manhole.

AT: 240	**Typical air relief valve manhole for pipes DN < 600 mm and dimensions 2.00x1.50 m** Item ΝΕΤ ΥΔΡ 9.30.01 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Euro In full: Two thousand one hundred and ninety
In numbers: 2,190.00

AT: 241	**Typical air relief valve manhole for pipes DN > 600 mm and dimensions 2.20x1.50 m** Item NET ΥΔΡ 9.30.02 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Euro In full: Two thousand three hundred and eighty
In numbers: 2,380.00

Typical Water Discharge Manhole

Complete structure of a typical water discharge manhole at any location of the project and regardless of the depth of the line of pipe from surface, according to the applicable Greek Technical Specifications (ETEP) per individual scope of works.

The unit price shall include the following:

- Any investigation trenches required for identifying ducts and networks;
- The required excavations executed by any means (mechanical means or manual excavation) in any type of soil, accompanied by any work that may be required for retaining the slopes of the trench, as well as loading-unloading of redundant excavation spoil and their transportation at any distance therefrom;
- The required dismantling works;
- Pumping works that may be required;
- The required soil layers improvement for the manhole's bedding;
- Non-reinforced and reinforced concrete structures forming the manhole (concrete of any category, steel-reinforcement, formwork, admixtures) according to the drawings of the Design;
- The required inner layout of the manhole, according to the drawings of the Design;
- Asphalt coating insulation for the outer slopes of the manhole;
- The supply and installation of the required cast iron risers and top of the manhole, in line with the drawings of the Design;
- The structure of the sewer force main towards the appropriate discharging item (pipe, special fittings, connection and embedment of pipe);
- The supply and installation of the ventilation pipe (whenever provided for);
- Backfilling of the trench's gab using crushed rock;
- Reinstatement of the trench's surface to its prior condition (road pavement or sidewalk);
- Any other work or individual structure required for the completion of the manhole, in line with the drawings of the Design.

The price does not include the cast iron gate valves and the dismantling joint, which are compensated on the basis of the respective Price List items.

Price per piece (pc) of a constructed manhole.

AT: 242	**Typical water discharge manhole simple (type A)**

Item NET ΥΔΡ 9.31.01
(Revised per item 50% ΥΔΡ-6327 + 50% ΥΔΡ-6311)

Euro In full: One thousand eight hundred and ten
In number: 1,810.00

AT: 243 **Typical water discharge manhole 2-chamber (type B)**
Item NET ΥΔΡ 9.31.02
(Revised per item 50% ΥΔΡ-6327 + 50% ΥΔΡ-6311)

Euro In full: Three thousand one hundred and eighty
In numbers: 3,180.00

Typical valves manholes

Complete structure of a typical valves' manhole at any location of the project and regardless of the depth of the line of pipe from surface, according to the applicable Greek Technical Specifications (ETEP) per individual scope of works.

The unit price shall include the following:

- Any investigation trenches required for identifying ducts and networks;
- The required excavations executed by any means (mechanical means or manual excavation) in any type of soil, accompanied by any work that may be required for retaining the slopes of the trench, as well as loading-unloading of redundant excavation spoil and their transportation at any distance therefrom;
- The required dismantling works;
- Pumping works that may be required;
- The required soil layers improvement for the manhole's bedding;
- Non-reinforced and reinforced concrete structures forming the manhole (concrete of any category, steel-reinforcement, formwork, admixtures) according to the drawings of the Design;
- The required inner layout of the manhole, according to the drawings of the Design;
- Asphalt coating insulation for the outer slopes of the manhole;
- The supply and installation of the required cast iron risers and top of the manhole, in line with the drawings of the Design;
- The structure of the sewer force main towards the appropriate discharging item (pipe, special fittings, connection and embedment of pipe);
- The supply and installation of the ventilation pipe (whenever provided for);
- Backfilling of the trench's gab using crushed rock;
- Reinstatement of the trench's surface to its prior condition (road pavement or sidewalk);
- Any other work or individual structure required for the completion of the manhole, in line with the drawings of the Design.

The price does not include the valves (either of sliding or butterfly type) and the dismantling joints, which are compensated on the basis of the respective Price List items.

Price per piece (pc) of a constructed manhole.

AT: 244	**Typical valves' manhole for pipes DN < 300 mm and dimensions 1.50x1.50 m** Item NET ΥΔΡ 9.32.01 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Euro In full: One thousand four hundred and seventy
In numbers: 1,470.00

AT: 245	**Typical valves' manhole for pipes DN 300 – 600 mm and dimensions 2.00x2.50 m** Item NET ΥΔΡ 9.32.02 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Euro In full: Two thousand nine hundred and ninety
In numbers: 2,990.00

AT: 246	**Typical valves' manhole for pipes DN > 600 mm and dimensions 2.00x3.00 m** Item NET ΥΔΡ 9.32.03 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Euro In full: Three thousand four hundred and seventy
In numbers: 3,470.00

Typical supply meter devices manholes

Complete structure of a typical supply meter device manhole at any location of the project and regardless of the depth of the line of pipe from surface, according to the applicable Greek Technical Specifications (ETEP) per individual scope of works.

The unit price shall include the following:

- Any investigation trenches required for identifying ducts and networks;
- The required excavations executed by any means (mechanical means or manual excavation) in any type of soil, accompanied by any work that may be required for retaining the slopes of the trench, as well as loading-unloading of redundant excavation spoil and their transportation at any distance therefrom;
- The required dismantling works;
- Pumping works that may be required;
- The required soil layers improvement for the manhole's bedding;
- Non-reinforced and reinforced concrete structures forming the manhole (concrete of any category, steel-reinforcement, formwork, admixtures) according to the drawings of the Design;

- The required inner layout of the manhole, according to the drawings of the Design;
- Asphalt coating insulation for the outer slopes of the manhole;
- The supply and installation of the required cast iron risers and top of the manhole, in line with the drawings of the Design;
- The structure of the sewer force main towards the appropriate discharging item (pipe, special fittings, connection and embedment of pipe);
- The supply and installation of the ventilation pipe (whenever provided for);
- Backfilling of the trench's gab using crushed rock;
- Reinstatement of the trench's surface to its prior condition (road pavement or sidewalk);
- Any other work or individual structure required for the completion of the manhole, in line with the drawings of the Design.

The price does not include the supply meter device and the dismantling joint, which are compensated on the basis of the respective Price List items.

Price per piece (pc) of a constructed manhole.

AT: 247	**Typical supply meter device manhole for pipes DN ≤ 300 mm, and dimensions 2.00x1.50 m** Item NET ΥΔΡ 9.33.01 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Euro In full: Two thousand
In numbers: 2,000.00

AT: 248	**Typical supply meter device manhole for pipes DN > 300 mm, and dimensions 2.20x1.50 m** Item NET ΥΔΡ 9.33.02 (Revised per item 50% ΥΔΡ-6329 +50% ΥΔΡ-6311)

Euro In full: Two thousand five hundred and twenty
In numbers: 2,520.00

AT: 249	**Typical supply meter device manhole, dimensions 2.50 x 2.50 m** Item NET ΥΔΡ 9.33.03 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Euro In full: Three thousand four hundred and seventy
In numbers: 3,470.00

AT: 250	**Typical water hammer arresting valves manholes** Item NET ΥΔΡ 9.34 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Complete structure of a typical water hammer arresting valve manhole at any location of the project and regardless of the depth of the line of pipe from surface, according to the applicable Greek Technical Specifications (ETEP) per individual scope of works.

The unit price shall include the following:

- Any investigation trenches required for identifying ducts and networks;
- The required excavations executed by any means (mechanical means or manual excavation) in any type of soil, accompanied by any work that may be required for retaining the slopes of the trench, as well as loading-unloading of redundant excavation spoil and their transportation at any distance therefrom;
- The required dismantling works;
- Pumping works that may be required;
- The required soil layers improvement for the manhole's bedding;
- Non-reinforced and reinforced concrete structures forming the manhole (concrete of any category, steel-reinforcement, formwork, admixtures) according to the drawings of the Design;
- Asphalt coating insulation for the outer slopes of the manhole;
- The supply and installation of the required cast iron risers and top of the manhole, in line with the drawings of the Design;
- The structure of the sewer force main towards the appropriate discharging item (pipe, special fittings, connection and embedment of pipe);
- The supply and installation of the ventilation pipe (whenever provided for);
- Backfilling of the trench's gab using crushed rock;
- Reinstatement of the trench's surface to its prior condition (road pavement or sidewalk);
- Any other work or individual structure required for the completion of the manhole, in line with the drawings of the Design.

The price does not include the water hammer arresting valve and the gate valve, which are compensated on the basis of the respective Price List items.

Price per piece (pc) of a constructed manhole.

Euro In full: Three thousand nine hundred and ninety
In numbers: 3,990.00

AT: 251	**Flow direction changing manholes, pipes DN ≤ 300 mm** Item ΝΕΤ ΥΔΡ 9.35 (Revised per item 50% ΥΔΡ-6329 + 50% ΥΔΡ-6311)

Complete structure of a typical flow direction changing manhole for pipes DN ≤ 300 mm at any location of the project and regardless of the depth of the line of pipe from surface, according to the applicable Greek Technical Specifications (ETEP) per individual scope of works.

The unit price shall include the following:

- Any investigation trenches required for identifying ducts and networks;

- The required excavations executed by any means (mechanical means or manual excavation) in any type of soil, accompanied by any work that may be required for retaining the slopes of the trench, as well as loading-unloading of redundant excavation spoil and their transportation at any distance therefrom;
- The required dismantling works;
- Pumping works that may be required;
- The required soil layers improvement for the manhole's bedding;
- Non-reinforced and reinforced concrete structures forming the manhole (concrete of any category, steel-reinforcement, formwork, admixtures) according to the drawings of the Design;
- The required inner layout of the manhole, according to the drawings of the Design;
- Asphalt coating insulation for the outer slopes of the manhole;
- The supply and installation of the required cast iron risers and top of the manhole, in line with the drawings of the Design;
- The structure of the sewer force main towards the appropriate discharging item (pipe, special fittings, connection and embedment of pipe);
- The supply and installation of the ventilation pipe (whenever provided for);
- Backfilling of the trench's gab using crushed rock;
- Reinstatement of the trench's surface to its prior condition (road pavement or sidewalk);
- Any other work or individual structure required for the completion of the manhole, in line with the drawings of the Design.

The price does not include the water hammer arresting valve and the gate valve, which are compensated on the basis of the respective Price List items.

Price per piece (pc) of a constructed manhole.

Euro In full: Eight hundred and sixty
In numbers: 860.00

AT: 252	**Typical junction manholes** Item NET ΥΔΡ 9.36 (Revised per item 50% ΥΔΡ-6327 + 50% ΥΔΡ-6311)

Complete structure of a typical junction manhole at any location of the project and regardless of the depth of the line of pipe from surface, according to the applicable Greek Technical Specifications (ETEP) per individual scope of works.

The unit price shall include the following:

- Any investigation trenches required for identifying ducts and networks;
- The required excavations executed by any means (mechanical means or manual excavation) in any type of soil, accompanied by any work that may be required for retaining the slopes of the trench, as well as loading-unloading of redundant excavation spoil and their transportation at any distance therefrom;

- The required dismantling works;
- Pumping works that may be required;
- The required soil layers improvement for the manhole's bedding;
- Non-reinforced and reinforced concrete structures forming the manhole (concrete of any category, steel-reinforcement, formwork, admixtures) according to the drawings of the Design;
- The required inner layout of the manhole, according to the drawings of the Design;
- Asphalt coating insulation for the outer slopes of the manhole;
- The supply and installation of the required cast iron risers and top of the manhole, in line with the drawings of the Design;
- The structure of the sewer force main towards the appropriate discharging item (pipe, special fittings, connection and embedment of pipe);
- The supply and installation of the ventilation pipe (whenever provided for);
- Backfilling of the trench's gab using crushed rock;
- Reinstatement of the trench's surface to its prior condition (road pavement or sidewalk);
- Any other work or individual structure required for the completion of the manhole, in line with the drawings of the Design.

The price does not include the devices within the manhole (valves and dismantling joints), which are compensated on the basis of the respective Price List items.

Price per piece (pc) of a constructed manhole.

Euro In full: Two thousand five hundred and seventy
In numbers: 2,570.00

PIPING - NETWORKS

AT: 253 **Galvanized cable conduits DN100 (incorporated)**
Item ΝΕΤ ΟΔΟ Β-59
(Revised per item ΗΛΜ-5)

Construction of cable conduits underneath the road pavement or at technical projects, using seamed and treaded galvanized steel pipes S195T, class L (green colour code), nominal diameter DN100 mm (thread size = 4'', d_{out} = 114,3 mm, wall thickness 3,6 mm).

The unit price includes:

- Supply and in-situ transport of the steel pipes, the cable draw wire, the galvanized special pieces, articles and brackets,
- Installation and coupling of the pipes,
- Placement of the cable drawing wire and marking of the pipes
- Assembly of pipe guides as foreseen.

The excavation/backfilling of the trench and the embedment of the conduits are priced separately on the basis of the pertinent items of the Price List.

Price per linear meter of pipeline.

Euro In full: Twenty-two and sixty cents
In numbers: 22.60

Supply, transportation at the installation location and placement of precast concrete sewage pipes, strength class 120, per ELOT EN 1916

Supply, transportation at the installation location, sideway movement, lower in the trench, placement and connection of concrete pipes per ELOT EN 1916, made of concrete with minimum typical strength 40 MPa and CE marking, with rubber sealing ring per ELOT EN 681-1.

Concrete pipes are distinguished according to:

[a] their nominal diameter (DN) which is the inner diameter in mm

[b] their construction material: non reinforced, reinforced and fiber reinforced

[c] their connection methodology: tongue and grooved type (O-gee pipes), bell-sochet pipes

[d] their application field: rain water or sewage pipes, perforated draining pipes, hydraulic pipe-jacking

[e] their strength class (series, strength class), which is defined as the minimum rupture load in kN/m, divided by 1/1000 of the nominal diameter (DN), as defined in ELOT EN 1916.

It is pointed out that the permissible depth of placement for the applicable live loads derives from the class strength and the pipe bedding factor, as per ELOT EN 1295-1. Therefore, by using only one concrete pipe strength class and by selecting the pipe line bedding/embedding factor we cover all types of conditions encountered at sewage networks (underneath heavy or light traffic roads, but not underneath road pavements).

The desired class strength is related to the thickness of the pipe walls, the concrete class and the type of reinforcement (mesh and/or steel fibers).

In view of the above, this item refers to concrete pipes with strength class 120, without distinction as to the connection method (tongue and groove type or bell-sochet pipes) and as to the presence or non presence of reinforcement.

The layout of the reinforcement as regards the thickness of bar coverage shall comply with the requirements of ELOT EN 206-1, depending on the pipe's loading conditions.

The sealing rings shall comply with the requirements of ELOT EN 681-1 and can be incorporated into the pipes at the time of manufacture or be subsequently delivered for installation during the pipe line assembly.

Whenever Sulfate Resistant (SR) cement is added in the concrete of the pipes, the respective unit price is usually increased by 10%.

Whenever an epoxy based or other material is applied as an extra inner side protection, the respective unit price is usually increased by 10%.

The unit price includes the supply and the transportation on site the Project of concrete pipes of a strength class (series) 120, with CE marking, as per ELOT EN 1916, accompanied by the corresponding rubber sealing rings, the required sideways movements, the lowering into the trench with mechanical means, the laying, the placement of the sealing ring and the aligning and temporary support of the pipes until they are embedded, in order to ensure the longitudinal gradient foreseen by the design.

The works for the excavation of the trench, the embedment of the pipes and the backfilling of the rest of the trench are priced separately according to the respective items of the Price List.

Pipes of intermediate diameters, in addition to the diameters included in this item, shall be priced on the basis of a linear comparison of the immediately higher and lower unit prices.

Unit price per linear meter of pipe line (the part of the pipe line inside the manholes is also counted), per nominal diameter and type of concrete pipes, regardless the length of each pipe, as follows:

ΑΤ: 254	**Sewage concrete pipes, strength class 120, per ELOT EN 1916** **Nominal diameter D200 mm** Item ΝΕΤ ΥΔΡ 12.01.01.01 (Revised per item ΥΔΡ 6551.1)

Euro In full: Thirteen and thirty cents
In numbers: 13.30

ΑΤ: 255	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D300 mm** Item ΝΕΤ ΥΔΡ 12.01.01.02 (Revised per item ΥΔΡ 6551.2)

Euro In full: Twenty and ninety cents
In numbers: 20.90

AT: 256	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D400 mm** Item NET ΥΔΡ 12.01.01.03 (Revised per item ΥΔΡ 6551.3)

Euro In full: Thirty-eight
In numbers: 38.00

AT: 257	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D500 mm** Item NET ΥΔΡ 12.01.01.04 (Revised per item ΥΔΡ 6551.4)

Euro In full: Fifty-two
In numbers: 52.00

AT: 258	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D600 mm** Item NET ΥΔΡ 12.01.01.05 (Revised per item ΥΔΡ 6551.5)

Euro In full: Sixty-seven
In numbers: 67.00

AT: 259	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D800 mm** Item NET ΥΔΡ 12.01.01.06 (Revised per item ΥΔΡ 6551.6)

Euro In full: Ninety-five
In numbers: 95.00

AT: 260	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D1000 mm** Item NET ΥΔΡ 12.01.01.07 (Revised per item ΥΔΡ 6551.7)

Euro In full: One hundred and thirty-three
In numbers: 133.00

AT: 261	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D1200 mm** Item NET ΥΔΡ 12.01.01.08 (Revised per item ΥΔΡ 6551.7)

Euro In full: One hundred and sixty-two
In numbers: 162.00

AT: 262	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D1400 mm** Item NET ΥΔΡ 12.01.01.09 (Revised per item ΥΔΡ 6551.7)

Euro In full: Two hundred and nine
In numbers: 209.00

AT: 263	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D1600 mm** Item NET ΥΔΡ 12.01.01.10 (Revised per item ΥΔΡ 6551.7)

Euro In full: Two hundred and sixty-six
In numbers: 266.00

AT: 264	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D1800 mm** Item NET ΥΔΡ 12.01.01.11 (Revised per item ΥΔΡ 6551.7)

Euro In full: Three hundred and sixty
In numbers: 360.00

AT: 265	**Sewage concrete pipes, strength class 120 per ELOT EN 1916** **Nominal diameter D2000 mm** Item NET ΥΔΡ 12.01.01.12 (Revised per item ΥΔΡ 6551.7)

Euro In full: Four hundred and eighty
In numbers: 480.00

AT: 266	**Sewage concrete pipes, strength class 120 per ELOT EN 1916 Nominal diameter D2250 mm** Item NET ΥΔΡ 12.01.01.13 (Revised per item ΥΔΡ 6551.7)

Euro In full: Six hundred and twenty
In numbers: 620.00

AT: 267	**Sewage concrete pipes, strength class 120 per ELOT EN 1916 Nominal diameter D2500 mm** Item NET ΥΔΡ 12.01.01.14 (Revised per item ΥΔΡ 6551.7)

Euro In full: Seven hundred and eighty
In numbers: 780.00

Solid wall PVC-U sewage pipes

Sewage ducts made of non plasticised PVC-U solid wall pipes, per ELOT EN 1401−1, according to the design and the Greek Technical Specification (ETEP) 08-06-02-02 "Sewage networks made of PVC-U pipes".

The pipes are distinguished on the basis of their nominal diameter DN (equal to the outer diameter), the SDR (Standard Dimension Ratio: ratio of the pipe outer diameter in relation to its wall thickness) the ring stiffness index number SN.

The present item applies to bell-sochet type pipes with rubber sealing ring (per ELOT EN 681.1), as well as to pipes with straight ends which are coupled using a glued coupler.

The unit prices of this item include:

a. Supply, on site transportation, temporary storage and sideways movement of the pipes and the sealing or joining rings (and the required glue).

b. Disposal of the required equipment and means for pipe handling and connection.

c. Fetching the pipes at the place of laying, connection of the pipes to one another, connection of the pipe with the manholes of the network, as well as the testing of the networks per section.

The following works are not included and are measured separately on the basis of the relevant items of the Price List:

- Layers for pipe seating and embedment and backfilling of the trench, as per the design
- Special pieces for connection to the sewage network ("saddle" with coupler)
- Special pieces of the pipe (angles, Tees, plugs etc.) made of PVC or cast iron

Price per linear meter of piping not including the length of the manholes and the special pieces.

AT: 268	**Sewage ducts of solid wall PVC-U pipes**

	Sewage ducts made of PVC-U pipes, SDR 41, DN 110 mm Item NET ΥΔΡ 12.10.01 (Revised per item ΥΔΡ 6711.1)

Euro In full: Three and fifty cents
In numbers: 3.50

AT: 269	**Sewage ducts of solid wall PVC-U pipes** **Sewage ducts made of PVC-U pipes, SDR 41, DN 125 mm** Item NET ΥΔΡ 12.10.02 (Revised per item ΥΔΡ 6711.1)

Euro In full: Three and ninety cents
In numbers: 3.90

AT: 270	**Sewage ducts of solid wall PVC-U pipes** **Sewage ducts made of PVC-U pipes, SDR 41, DN 160 mm** Item NET ΥΔΡ 12.10.03 (Revised per item ΥΔΡ 6711.1)

Euro In full: Six and fifty cents
In numbers: 6.50

AT: 271	**Sewage ducts of solid wall PVC-U pipes** **Sewage ducts made of PVC-U pipes, SDR 41, DN 200 mm** Item NET ΥΔΡ 12.10.04 (Revised per item ΥΔΡ 6711.2)

Euro In full: Eight and sixty cents
In numbers: 8.60

AT: 272	**Sewage ducts of solid wall PVC-U pipes** **Sewage ducts made of PVC-U pipes, SDR 41, DN 250 mm** Item NET ΥΔΡ 12.10.05 (Revised per item ΥΔΡ 6711.3)

Euro In full: Thirteen and sixty cents
In numbers: 13.60

AT: 273	**Sewage ducts of solid wall PVC-U pipes** **Sewage ducts made of PVC-U pipes, SDR 41, DN 315 mm** Item NET ΥΔΡ 12.10.06 (Revised per item ΥΔΡ 6711.4)

Euro In full: Twenty one
In numbers: 21.00

AT: 274	**Sewage ducts of solid wall PVC-U pipes** **Sewage ducts made of PVC-U pipes, SDR 41, DN 355 mm**

Item ΝΕΤ ΥΔΡ 12.10.07
(Revised per item ΥΔΡ 6711.5)

Euro In full: Twenty five and fifty cents
In numbers: 25.50

AT: 275 **Sewage ducts of solid wall PVC-U pipes**
Sewage ducts made of PVC-U pipes, SDR 41, DN 400 mm
Item ΝΕΤ ΥΔΡ 12.10.08
(Revised per item ΥΔΡ 6711.6)

Euro In full: Thirty one and forty cents
In numbers: 31.40

AT: 276 **Sewage ducts of solid wall PVC-U pipes**
Sewage ducts made of PVC-U pipes, SDR 41, DN 500 mm
Item ΝΕΤ ΥΔΡ 12.10.09
(Revised per item ΥΔΡ 6711.7)

Euro In full: Forty six and forty cents
In numbers: 46.40

AT: 277 **Sewage ducts of solid wall PVC-U pipes**
Sewage ducts made of PVC-U pipes, SDR 41, DN 630 mm
Item ΝΕΤ ΥΔΡ 12.10.10
(Revised per item ΥΔΡ 6711.7)

Euro In full: Seventy one
In numbers: 71.00

Saddle with coupler glued onto sewage pipes made of PVC-U series 41.

Supply, on site transportation, fetching and installation of special pieces made of non plasticised PVC-U, with mechanical coupling or gluing, depending on the special piece. The price includes the respective rubber sealing rings per ELOT EN 681-1 as well as the required gluing materials.

Standard glued saddles with couplers made of PVC for connecting sewage pipes to the sewage network. The unit price includes the drilling of a hole on the wall of the pipe using a pipe drilling machine, the preparation of the pipe surface for gluing, as well as a plug of a nominal diameter of 160 mm, in case there are stand-by connections.

Price per piece of a fully installed saddle with coupler.

AT: 278 **Saddle with coupler glued onto sewage pipes made of PVC-U series 41.**
Saddle/coupler – Nominal diameters 200/125 mm.
Item ΝΕΤ ΥΔΡ 12.12.01.01
(Revised per item ΥΔΡ 6712.1)

Euro In full: Twenty seven and ninety cents

In numbers: 27.90

AT: 279	**Saddle with coupler glued onto sewage pipes made of PVC-U series 41. Saddle/coupler – Nominal diameters 200/160 mm.** Item NET ΥΔΡ 12.12.01.02 (Revised per item ΥΔΡ 6712.2)

Euro In full: Twenty nine and ninety cents
In numbers: 29.90

AT: 280	**Saddle with coupler glued onto sewage pipes made of PVC-U series 41. Saddle/coupler – Nominal diameters 315/160 mm.** Item NET ΥΔΡ 12.12.01.03 (Revised per item ΥΔΡ 6712.3)

Euro In full: Thirty five and ninety cents
In numbers: 35.90

AT: 281	**Saddle with coupler glued onto sewage pipes made of PVC-U series 41. Saddle/coupler – Nominal diameters 355/160 mm.** Item NET ΥΔΡ 12.12.01.04 (Revised per item ΥΔΡ 6712.4)

EURO In full: Forty and ninety cents
In numbers: 40.90

AT: 282	**Saddle with coupler glued onto sewage pipes made of PVC-U series 41. Saddle/coupler – Nominal diameters 400/160 mm.** Item NET ΥΔΡ 12.12.01.05 (Revised per item ΥΔΡ 6712.5)

Euro In full: Forty-four and ninety cents
In numbers: 44.90

Ducts under pressure, made of PVC-U pipes

Ducts under pressure made of non plasticised PVC-U pipes, with solid walls, per ELOT EN 1452-2, according to the design and the ETEP 08-06-02-01 "PVC-U pipe networks under pressure".

The unit price includes:

a. Supply, on site transportation of the pipes and all required special PVC pieces of an equivalent nominal pressure, according to the Project's design (for avoiding obstacles and horizontal, longitudinal changes to the alignment etc.).

b. Sideway movements within the worksite, fetching, installation and connection of the pipe and the special pieces, as well as testing as per ETEP 08-06-02-01.

c. Placement of plastic warning devices at the trench of a colour to be determined by the Service, as per ETEP 08-06-08-01 "Underground networks plastic warning devices".

It is clarified that the cost for the connection of the constructed sewage duct made of PVC-U pipes with the existing network is not included in this item and it is paid separately on the basis of the respective items in this Price List. Moreover, the cost does not include the network control and safety devices, the fixing of the pipes and their embedment in sand which is paid separately on the basis of the relevant items of this Price List.

Price of one meter of useful length, per pipe diameter and category of nominal pressure, fully installed as per the above, and ready for full operation:

ΑΤ: 283	**Nominal pressure 10 at** **Nominal diameter D 50 mm** Item ΝΕΤ ΥΔΡ 12.13.02.01 (Revised per item ΥΔΡ 6621.1)

Euro In full: Two and seventy cents
In numbers: 2.70

ΑΤ: 284	**Nominal pressure 10 at** **Nominal diameter D 63 mm** Item ΝΕΤ ΥΔΡ 12.13.02.02 (Revised per item ΥΔΡ 6621.1)

Euro In full: Three and seventy cents
In numbers: 3.70

ΑΤ: 285	**Nominal pressure 10 at** **Nominal diameter D 75 mm** Item ΝΕΤ ΥΔΡ 12.13.02.03 (Revised per item ΥΔΡ 6621.1)

Euro In full: Four and forty cents
In numbers: 4.40

ΑΤ: 286	**Nominal pressure 10 at** **Nominal diameter D 90 mm** Item ΝΕΤ ΥΔΡ 12.13.02.04 (Revised per item ΥΔΡ 6621.1)

Euro In full: Five and sixty cents
In numbers: 5.60

ΑΤ: 287	**Nominal pressure 10 at** **Nominal diameter D 110 mm** Item ΝΕΤ ΥΔΡ 12.13.02.05 (Revised per item ΥΔΡ 6621.1)

Euro In full: Six and eighty cents
In numbers: 6.80

ΑΤ: 288	**Nominal pressure 10 at** **Nominal diameter D 140 mm**

Item ΝΕΤ ΥΔΡ 12.13.02.06
(Revised per item ΥΔΡ 6621.2)

Euro In full: Eleven and fifty cents
In numbers: 11.50

AT: 289 **Nominal pressure 10 at**
Nominal diameter D 160 mm
Item ΝΕΤ ΥΔΡ 12.13.02.07
(Revised per item ΥΔΡ 6621.3)

Euro In full: Thirteen and fifty cents
In numbers: 13.50

AT: 290 **Nominal pressure 10 at**
Nominal diameter D 200 mm
Item ΝΕΤ ΥΔΡ 12.13.02.08
(Revised per item ΥΔΡ 6621.4)

Euro In full: Nineteen
In numbers: 19.00

AT: 291 **Nominal pressure 10 at**
Nominal diameter D 225 mm
Item ΝΕΤ ΥΔΡ 12.13.02.09
(Revised per item ΥΔΡ 6621.5)

Euro In full: Twenty-five
In numbers: 25.00

AT: 292 **Nominal pressure 10 at**
Nominal diameter D 280 mm
Item ΝΕΤ ΥΔΡ 12.13.02.10
(Revised per item ΥΔΡ 6621.6)

Euro In full: Thirty-nine and ninety cents
In numbers: 39.90

AT: 293 **Nominal pressure 10 at**
Nominal diameter D 315 mm
Item ΝΕΤ ΥΔΡ 12.13.02.11
(Revised per item ΥΔΡ 6621.7)

Euro In full: Forty-nine and ninety cents
In numbers: 49.90

AT: 294 **Nominal pressure 10 at**
Nominal diameter D 355 mm
Item ΝΕΤ ΥΔΡ 12.13.02.12
(Revised per item ΥΔΡ 6621.8)

Euro In full: Sixty

In numbers: 60.00

AT: 295	**Nominal pressure 10 at** **Nominal diameter D 400 mm** Item NET ΥΔΡ 12.13.02.13 (Revised per item ΥΔΡ 6621.9)

Euro In full: Seventy-five
In numbers: 75.00

AT: 296	**Nominal pressure 10 at** **Nominal diameter D 450 mm** Item NET ΥΔΡ 12.13.02.14 (Revised per item ΥΔΡ 6621.9)

Euro In full: Ninety
In numbers: 90.00

AT: 297	**Nominal pressure 10 at** **Nominal diameter D 500 mm** Item NET ΥΔΡ 12.13.02.15 (Revised per item ΥΔΡ 6621.9)

Euro In full: One hundred and nine
In numbers: 109.00

AT: 298	**Nominal pressure 16 at** **Nominal diameter D 50 mm** Item NET ΥΔΡ 12.13.04.01 (Revised per item ΥΔΡ 6622.1)

Euro In full: Three and fifty cents
In numbers: 3.50

AT: 299	**Nominal pressure 16 at** **Nominal diameter D 63 mm** Item NET ΥΔΡ 12.13.04.02 (Revised per item ΥΔΡ 6622.1)

Euro In full: Four and eighty cents
In numbers: 4.80

AT: 300	**Nominal pressure 16 at** **Nominal diameter D 75 mm** Item NET ΥΔΡ 12.13.04.03 (Revised per item ΥΔΡ 6622.1)

Euro In full: Five and seventy cents
In numbers: 5.70

AT: 301	**Nominal pressure 16 at** **Nominal diameter D 90 mm** Item NET ΥΔΡ 12.13.04.04 (Revised per item ΥΔΡ 6622.1)

Euro In full: Seven and twenty cents
In numbers: 7.20

AT: 302	**Nominal pressure 16 at** **Nominal diameter D 110 mm** Item NET ΥΔΡ 12.13.04.05 (Revised per item ΥΔΡ 6622.1)

Euro In full: Nine and ten cents
In numbers: 9.10

AT: 303	**Nominal pressure 16 at** **Nominal diameter D 140 mm** Item NET ΥΔΡ 12.13.04.06 (Revised per item ΥΔΡ 6622.2)

Euro In full: Fifteen
In numbers: 15.00

AT: 304	**Nominal pressure 16 at** **Nominal diameter D 160 mm** Item NET ΥΔΡ 12.13.04.07 (Revised per item ΥΔΡ 6622.3)

Euro In full: Twenty
In numbers: 20.00

AT: 305	**Nominal pressure 16 at** **Nominal diameter D 200 mm** Item NET ΥΔΡ 12.13.04.08 (Revised per item ΥΔΡ 6622.3)

Euro In full: Twenty seven and ninety cents
In numbers: 27.90

AT: 306	**Nominal pressure 16 at** **Nominal diameter D 225 mm** Item NET ΥΔΡ 12.13.04.09 (Revised per item ΥΔΡ 6622.3)

Euro In full: Thirty-five
In numbers: 35.00

AT: 307	**Nominal pressure 16 at**

Nominal diameter D 280 mm
Item ΝΕΤ ΥΔΡ 12.13.04.10
(Revised per item ΥΔΡ 6622.3)

Euro In full: Fifty-eight
In numbers: 58.00

AT: 308 **Nominal pressure 16 at**
Nominal diameter D 315 mm
Item ΝΕΤ ΥΔΡ 12.13.04.11
(Revised per item ΥΔΡ 6622.3)

Euro In full: Seventy
In numbers: 70.00

AT: 309 **Nominal pressure 16 at**
Nominal diameter D 355 mm
Item ΝΕΤ ΥΔΡ 12.13.04.12
(Revised per item ΥΔΡ 6622.3)

Euro In full: Eighty-five
In numbers: 85.00

AT: 310 **Nominal pressure 16 at**
Nominal diameter D 400 mm
Item ΝΕΤ ΥΔΡ 12.13.04.13
(Revised per item ΥΔΡ 6622.3)

Euro In full: One hundred and five
In numbers: 105.00

AT: 311 **Nominal pressure 16 at**
Nominal diameter D 450 mm
Item ΝΕΤ ΥΔΡ 12.13.04.14
(Revised per item ΥΔΡ 6622.3)

Euro In full: One hundred and twenty-nine
In numbers: 129.00

AT: 312 **Nominal pressure 16 at**
Nominal diameter D 500 mm
Item ΝΕΤ ΥΔΡ 12.13.04.15
(Revised per item ΥΔΡ 6622.3)

Euro In full: One hundred and sixty
In numbers: 160.00

Plastics Piping System under pressure consisting of solid wall PE pipes, per ELOT EN 12201-2

Piping system under pressure consisting of solid wall pipes (PE), per EN 12201-2, for drinkable water and general use water supply and for drainage and sewerage under pressure.

The pipes are distinguished on the basis of manufacturing material (PE 100, PE 80, PE 40) their nominal diameter DN (equal to the outer diameter: DN/OD pipes), the SDR (Standard Dimension Ratio: ratio of the pipe outer diameter in relation to its wall thickness) and the manufacturing manner (co-extruded layers or either or both the outside and/or the inside of the pipe, with a peelable contiguous thermoplastics additional layer on the outside of the pipe).
The number characterizing the manufacturing material (PE 100, PE 80, PE 40) relates to the minimum required strength (MRS), namely: PE 100 – MRS 10 MPa, PE 80 – MRS 8 MPa, PE 40 – MRS 4 MPa.
In line with EN 12201-2, the nominal pressure (PN) for the operation of the pipes correlates to a maximum SDR rating.
In the present item, pipes are distinguished on the basis of their PN and, thus, SDR requirements, stipulated in the Standard, are fully adhered to.
PE pipes have CE marking indicating their characteristics, such as their suitable for use, W = for drinkable water, P = for sewerage networks under pressure W/P = for networks of general use.
This item makes no distinction among the use of the pipes and the prices apply to all kinds of networks.
It is stressed that the pipes with a peelable contiguous thermoplastics additional layer on the outside must fulfill all requirements pertaining to the physical, mechanical and chemical characteristics that are applicable to the remaining PE pipes.
The unit prices of this item include:

a. Supply, on site transportation, temporary storage and protection and sideways movement of the pipes, the required joining and the special PE fittings.

b. Transportation on site the Project of the gluing and checking devices of the pipes, their use and operation and all kinds of the necessary consumables.

c. Fetching the pipes at the place of laying, connection of the pipes and their PE special fittings, using butt welding or electrical couplers, as well as the testing of the network per section.

d. Supply, on site transportation and placement of network's marking tape, in line with the respective Technical Specifications

It is clarified that the cost for the connection of the PE pipe under construction with the existing network is not included in this item; it is separately compensated on the basis of the respective items of this Price List. Similarly, the checking and safety devices of the network, along with the sand embedment of the pipes activities are separately compensated on the basis of the respective items of this Price List.

Price per meter of the axial length of PE piping, fully installed, per type, nominal diameter and nominal pressure, as follows:

Plastics Piping System under pressure consisting of solid wall PE pipes (minimum required strength (MRS10 = 10 MPa), per ELOT EN 12201-2

AT: 313	**Nominal pressure 10 at** **Nominal diameter D 63 mm** Item ΝΕΤ ΥΔΡ 12.14.01.04 (Revised per item ΥΔΡ 6621.1)

Euro In full: Four and thirty cents
In numbers: 4.30

AT: 314	**Nominal pressure 10 at**

	Nominal diameter D 90 mm Item ΝΕΤ ΥΔΡ 12.14.01.06 (Revised per item ΥΔΡ 6621.1)

Euro In full: Seven
In numbers: 7.00

AT: 315	**Nominal pressure 10 at** **Nominal diameter D 110 mm** Item ΝΕΤ ΥΔΡ 12.14.01.07 (Revised per item ΥΔΡ 6621.1)

Euro In full: Nine and thirty cents
In numbers: 9.30

AT: 316	**Nominal pressure 10 at** **Nominal diameter D 125 mm** Item ΝΕΤ ΥΔΡ 12.14.01.08 (Revised per item ΥΔΡ 6621.2)

Euro In full: Eleven
In numbers: 11.00

AT: 317	**Nominal pressure 10 at** **Nominal diameter D 125 mm** Item ΝΕΤ ΥΔΡ 12.14.01.09 (Revised per item ΥΔΡ 6621.2)

Euro In full: Fourteen
In numbers: 14.00

AT: 318	**Nominal pressure 10 at** **Nominal diameter D 160 mm** Item ΝΕΤ ΥΔΡ 12.14.01.10 (Revised per item ΥΔΡ 6621.3)

Euro In full: Sixteen
In numbers: 16.00

AT: 319	**Nominal pressure 10 at** **Nominal diameter D 200 mm** Item ΝΕΤ ΥΔΡ 12.14.01.11 (Revised per item ΥΔΡ 6621.4)

Euro In full: Twenty one and ninety cents
In numbers: 21.90

AT: 320	**Nominal pressure 10 at** **Nominal diameter D 315 mm** Item ΝΕΤ ΥΔΡ 12.14.01.15 (Revised per item ΥΔΡ 6621.7)

Euro In full: Fifty five
In numbers: 55.00

AT: 321	**Nominal pressure 16 at** **Nominal diameter D 63 mm** Item NET ΥΔΡ 12.14.01.44 (Revised per item ΥΔΡ 6621.1)

Euro In full: Five and sixty cents
In numbers: 5.60

AT: 322	**Nominal pressure 16 at** **Nominal diameter D 90 mm** Item NET ΥΔΡ 12.14.01.46 (Revised per item ΥΔΡ 6621.1)

Euro In full: Eight and eighty cents
In numbers: 8.80

AT: 323	**Nominal pressure 16 at** **Nominal diameter D 110 mm** Item NET ΥΔΡ 12.14.01.47 (Revised per item ΥΔΡ 6621.1)

Euro In full: Thirteen
In numbers: 13.00

AT: 324	**Nominal pressure 16 at** **Nominal diameter D 125 mm** Item NET ΥΔΡ 12.14.01.48 (Revised per item ΥΔΡ 6621.2)

Euro In full: Seventeen
In numbers: 17.00

AT: 325	**Nominal pressure 16 at** **Nominal diameter D 140 mm** Item NET ΥΔΡ 12.14.01.49 (Revised per item ΥΔΡ 6621.2)

Euro In full: Twenty
In numbers: 20.00

AT: 326	**Nominal pressure 16 at** **Nominal diameter D 160 mm** Item NET ΥΔΡ 12.14.01.50 (Revised per item ΥΔΡ 6621.3)

Euro In full: Twenty five
In numbers: 25.00

AT: 327	**Nominal pressure 16 at**

	Nominal diameter D 200 mm Item NET ΥΔΡ 12.14.01.51 (Revised per item ΥΔΡ 6621.3)

Euro In full: Thirty seven and ninety cents
In numbers: 37.90

AT: 328	**Nominal pressure 16 at** **Nominal diameter D 315 mm** Item NET ΥΔΡ 12.14.01.55 (Revised per item ΥΔΡ 6621.3)

Euro In full: Eighty five
In numbers: 85.00

Networks under pressure made of ductile iron pipes

High pressure piping made of spheroid graphite ductile iron per ELOT EN 545, with bell-sochet or flange type terminations, inner lining of cement screed and outer lining of metallic zinc, with protective finish of one of the types described in Annex D of the above Standard.

The ductile iron pipes under pressure are classified on the basis of their nominal diameter DN (equal to the inner pipe diameter) and the pressure class C (equal to the maximum hydrostatic pressure under constant operation - PFA).

The characteristics of the ductile cast iron pipes per ELOT EN 545 described in the Standard must be certified by an accredited laboratory, according to the applicable EU regulations.

The unit prices include the supply and on site transportation of the ductile cast iron pipes along with the required sealing rings per ELOT EN 681-1, the temporary storage, sideways movements, the lowering of the pipes in the trench, their connection and waterproofing inspections.

The unit prices do not include the excavation of the trench, the embedment of the pipes and the special pieces of the pipe line and are measured separately according to the respective items of the Price List.

Price per linear meter of piping, without calculating the length of the special pieces.

AT: 329	**Networks under pressure made of ductile iron pipes** **Pipes DN 100 mm / class C40, per ELOT EN 545** Item NET ΥΔΡ 12.15.01 (Revised per item ΥΔΡ 6623)

Euro In full: Twenty nine and ninety cents
In numbers: 29.90

AT: 330	**Networks under pressure made of ductile iron pipes** **Pipes DN 125 mm / class C40, per ELOT EN 545** Item NET ΥΔΡ 12.15.02

(Revised per item ΥΔΡ 6623)

Euro In full: Thirty five
In numbers: 35.00

ΑΤ: 331 **Networks under pressure made of ductile iron pipes Pipes DN 150 mm / class C40, per ELOT EN 545**
Item ΝΕΤ ΥΔΡ 12.15.03
(Revised per item ΥΔΡ 6623)

Euro In full: Thirty nine and ninety
In numbers: 39.90

ΑΤ: 332 **Networks under pressure made of ductile iron pipes Pipes DN 200 mm / class C40, per ELOT EN 545**
Item ΝΕΤ ΥΔΡ 12.15.04
(Revised per item ΥΔΡ 6623)

Euro In full: Fifty five
In numbers: 55.00

ΑΤ: 333 **Networks under pressure made of ductile iron pipes Pipes DN 250 mm / class C40, per ELOT EN 545**
Item ΝΕΤ ΥΔΡ 12.15.05
(Revised per item ΥΔΡ 6623)

Euro In full: Seventy
In numbers: 70.00

ΑΤ: 334 **Networks under pressure made of ductile iron pipes Pipes DN 300 mm / class C40, per ELOT EN 545**
Item ΝΕΤ ΥΔΡ 12.15.06
(Revised per item ΥΔΡ 6623)

Euro In full: One hundred
In numbers: 100.00

ΑΤ: 335 **Networks under pressure made of ductile iron pipes Pipes DN 350 mm / class C30, per ELOT EN 545**
Item ΝΕΤ ΥΔΡ 12.15.07
(Revised per item ΥΔΡ 6623)

Euro In full: One hundred and fifteen
In numbers: 115.00

ΑΤ: 336 **Networks under pressure made of ductile iron pipes Pipes DN 400 mm / class C30, per ELOT EN 545**
Item ΝΕΤ ΥΔΡ 12.15.08
(Revised per item ΥΔΡ 6623)

Euro In full: One hundred and thirty
In numbers: 130.00

AT: 337	**Networks under pressure made of ductile iron pipes** **Pipes DN 450 mm / class C30, per ELOT EN 545** Item ΝΕΤ ΥΔΡ 12.15.09 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and thirty five
In numbers: 135.00

AT: 338	**Networks under pressure made of ductile iron pipes** **Pipes DN 500 mm / class C30, per ELOT EN 545** Item ΝΕΤ ΥΔΡ 12.15.10 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and fifty
In numbers: 150.00

AT: 339	**Networks under pressure made of ductile iron pipes** **Pipes DN 600 mm / class C30, per ELOT EN 545** Item ΝΕΤ ΥΔΡ 12.15.11 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and eighty
In numbers: 180.00

AT: 340	**Networks under pressure made of ductile iron pipes** **Pipes DN 700 mm / class C25, per ELOT EN 545** Item ΝΕΤ ΥΔΡ 12.15.12 (Revised per item ΥΔΡ 6623)

Euro In full: Two hundred and fifteen
In numbers: 215.00

AT: 341	**Networks under pressure made of ductile iron pipes** **Pipes DN 800 mm / class C25, per ELOT EN 545** Item ΝΕΤ ΥΔΡ 12.15.13 (Revised per item ΥΔΡ 6623)

Euro In full: Two hundred and fifty five
In numbers: 255.00

AT: 342	**Networks under pressure made of ductile iron pipes** **Pipes DN 900 mm / class C25, per ELOT EN 545** Item ΝΕΤ ΥΔΡ 12.15.14 (Revised per item ΥΔΡ 6623)

Euro In full: Three hundred and fifty
In numbers: 350.00

AT: 343	**Networks under pressure made of ductile iron pipes** **Pipes DN 1000 mm / class C25, per ELOT EN 545**

Item NET ΥΔΡ 12.15.15
(Revised per item ΥΔΡ 6623)

Euro In full: Three hundred and seventy
In numbers: 370.00

AT: 344 **Networks under pressure made of ductile iron pipes**
Pipes DN 1100 mm / class C25, per ELOT EN 545
Item NET ΥΔΡ 12.15.16
(Revised per item ΥΔΡ 6623)

Euro In full: Four hundred and ninety
In numbers: 490.00

AT: 345 **Networks under pressure made of ductile iron pipes**
Pipes DN 1200 mm / class C25, per ELOT EN 545
Item NET ΥΔΡ 12.15.17
(Revised per item ΥΔΡ 6623)

Euro In full: Six hundred and ten
In numbers: 610.00

Sewage networks made of ductile iron pipes

Sewage networks with pipes made of ductile spheroid graphite cast iron, per ELOT EN 598, CE marking, bell-sochet terminations, rubber sealing ring per ELOT EN 681-1, inner lining made of screed with high alumina cement and outer lining made of metal zinc, minimum thickness 70 μm, with protective finish of one of the types mentioned in Annex B' of the Standard.

The ductile sewage pipes are classified on the basis of their nominal diameter DN (equal to the inner pipe diameter).

The unit prices include the supply and on site transportation of the ductile cast iron pipes along with the required sealing rings per ELOT EN 681-1, the temporary storage, sideways movements, the lowering of the pipes in the trench, their connection and waterproofing inspections.

The excavation of the trench, embedment of the pipes and the special pieces of the pipe line are not included in the unit prices and are measured separately according to the respective items of the Price List.

Price per linear meter of piping's axial length, without calculating the length of the special pieces.

AT: 346 **Sewage networks made of ductile iron**
Pipes DN 100 mm, per ELOT EN 598
Item NET ΥΔΡ 12.16.01
(Revised per item ΥΔΡ 6623)

Euro In full: Thirty-five
In numbers: 35.00

AT: 347	**Sewage networks made of ductile iron Pipes DN 125 mm, per ELOT EN 598** Item NET ΥΔΡ 12.16.02 (Revised per item ΥΔΡ 6623)

Euro In full: Forty-one and ninety cents
In numbers: 41.90

AT: 348	**Sewage networks made of ductile iron Pipes DN 150 mm, per ELOT EN 598** Item NET ΥΔΡ 12.16.03 (Revised per item ΥΔΡ 6623)

Euro In full: Forty-seven and ninety cents
In numbers: 47.90

AT: 349	**Sewage networks made of ductile iron Pipes DN 200 mm, per ELOT EN 598** Item NET ΥΔΡ 12.16.04 (Revised per item ΥΔΡ 6623)

Euro In full: Sixty
In numbers: 60.00

AT: 350	**Sewage networks made of ductile iron Pipes DN 250 mm, per ELOT EN 598** Item NET ΥΔΡ 12.16.05 (Revised per item ΥΔΡ 6623)

Euro In full: Eighty
In numbers: 80.00

AT: 351	**Sewage networks made of ductile iron Pipes DN 300 mm, per ELOT EN 598** Item NET ΥΔΡ 12.16.06 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred
In numbers: 100.00

AT: 352	**Sewage networks made of ductile iron Pipes DN 350 mm, per ELOT EN 598** Item NET ΥΔΡ 12.16.07 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and fifteen
In numbers: 115.00

AT: 353	**Sewage networks made of ductile iron** **Pipes DN 400 mm, per ELOT EN 598** Item ΝΕΤ ΥΔΡ 12.16.08 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and thirty
In numbers: 130.00

AT: 354	**Sewage networks made of ductile iron** **Pipes DN 450 mm, per ELOT EN 598** Item ΝΕΤ ΥΔΡ 12.16.09 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and forty
In numbers: 140.00

AT: 355	**Sewage networks made of ductile iron** **Pipes DN 500 mm, per ELOT EN 598** Item ΝΕΤ ΥΔΡ 12.16.10 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and sixty
In numbers: 160.00

AT: 356	**Sewage networks made of ductile iron** **Pipes DN 600 mm, per ELOT EN 598** Item ΝΕΤ ΥΔΡ 12.16.11 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and ninety
In numbers: 190.00

AT: 357	**Sewage networks made of ductile iron** **Pipes DN 700 mm, per ELOT EN 598** Item ΝΕΤ ΥΔΡ 12.16.12 (Revised per item ΥΔΡ 6623)

Euro In full: Two hundred and forty four
In numbers: 244.00

AT: 358	**Sewage networks made of ductile iron** **Pipes DN 800 mm, per ELOT EN 598** Item ΝΕΤ ΥΔΡ 12.16.13 (Revised per item ΥΔΡ 6623)

Euro In full: Two hundred and eighty five
In numbers: 285.00

AT: 359	**Sewage networks made of ductile iron**

Pipes DN 900 mm, per ELOT EN 598
Item NET ΥΔΡ 12.16.14
(Revised per item ΥΔΡ 6623)

Euro In full: Three hundred and seventy
In numbers: 370.00

AT: 360 **Sewage networks made of ductile iron**
Pipes DN 1000 mm, per ELOT EN 598
Item NET ΥΔΡ 12.16.15
(Revised per item ΥΔΡ 6623)

Euro In full: Four hundred and ten
In numbers: 410.00

Piping special pieces made of spheroid graphite ductile iron

Special pieces, couplers and supports of pipes made of spheroid graphite ductile iron, whose cross section and other characteristics are as per ELOT EN 545 and ELOT EN 598, accompanied by certificates from an accredited EU certification agency.

The unit prices include the supply and on site transportation of the ductile cast iron pipes, their temporary storage, sideways movements and their assembly into a pipe line.

AT: 361 **Curves, Tees, stepdown adaptors plugs etc. of all types, sizes and pressure classes, per ELOT EN 545 & ELOT EN 598**
Item NET ΥΔΡ 12.17.01
(Revised per item ΥΔΡ 6623)

Curves, Tees, stepdown adaptors plugs etc. of all types (single or double connection with couplers, single or double bell-sochet type coupling), sizes (any nominal diameter), classes of operation pressure, with inner and outer protection of one of the types specified in ELOT EN 545 & ELOT EN 598. The price includes the required bolts and the rubber sealing rings ELOT EN 681-1.

Price per kilogram (kg).

Euro In full: Two and forty cents
In numbers: 2.40

Fixing items (saddles) of pressure pipes made of spheroid graphite ductile iron per ELOT EN 545, fully installed, with the required bolts

Price per fully installed saddle, according to the nominal diameter DN of the fixed pipe or special piece.

AT: 362 **Saddle DN 100 mm**
Item NET ΥΔΡ 12.17.02.01
(Revised per item ΥΔΡ 6623)

Euro In full: Four and thirty cents
In numbers: 4.30

AT: 363	**Saddle DN 125 mm** Item NET ΥΔΡ 12.17.02.02 (Revised per item ΥΔΡ 6623)

Euro In full: Five and twenty cents
In numbers: 5.20

AT: 364	**Saddle DN 150 mm** Item NET ΥΔΡ 12.17.02.03 (Revised per item ΥΔΡ 6623)

Euro In full: Five and seventy cents
In numbers: 5.70

AT: 365	**Saddle DN 200 mm** Item NET ΥΔΡ 12.17.02.04 (Revised per item ΥΔΡ 6623)

Euro In full: Eight and ten cents
In numbers: 8.10

AT: 366	**Saddle DN 250 mm** Item NET ΥΔΡ 12.17.02.05 (Revised per item ΥΔΡ 6623)

Euro In full: Ten
In numbers: 10.00

AT: 367	**Saddle DN 300 mm** Item NET ΥΔΡ 12.17.02.06 (Revised per item ΥΔΡ 6623)

Euro In full: Fourteen and thirty cents
In numbers: 14.30

AT: 368	**Saddle DN 350 mm** Item NET ΥΔΡ 12.17.02.07 (Revised per item ΥΔΡ 6623)

Euro In full: Sixteen and sixty cents
In numbers: 16.60

AT: 369	**Saddle DN 400 mm** Item NET ΥΔΡ 12.17.02.08 (Revised per item ΥΔΡ 6623)

Euro In full: Eighteen and fifty cents

In numbers: 18.50

AT: 370	**Saddle DN 450 mm** Item NET ΥΔΡ 12.17.02.09 (Revised per item ΥΔΡ 6623)

Euro In full: Twenty five and seventy cents
In numbers: 25.70

AT: 371	**Saddle DN 500 mm** Item NET ΥΔΡ 12.17.02.10 (Revised per item ΥΔΡ 6623)

Euro In full: Twenty-eight and fifty cents
In numbers: 28.50

AT: 372	**Saddle DN 600 mm** Item NET ΥΔΡ 12.17.02.11 (Revised per item ΥΔΡ 6623)

Euro In full: Thirty four and twenty cents
In numbers: 34.20

AT: 373	**Saddle DN 700 mm** Item NET ΥΔΡ 12.17.02.12 (Revised per item ΥΔΡ 6623)

Euro In full: Forty and ninety cents
In numbers: 40.90

AT: 374	**Saddle DN 800 mm** Item NET ΥΔΡ 12.17.02.13 (Revised per item ΥΔΡ 6623)

Euro In full: Seventy three
In numbers: 73.00

AT: 375	**Saddle DN 900 mm** Item NET ΥΔΡ 12.17.02.14 (Revised per item ΥΔΡ 6623)

Euro In full: Eighty four
In numbers: 84.00

AT: 376	**Saddle DN 1000 mm** Item NET ΥΔΡ 12.17.02.15 (Revised per item ΥΔΡ 6623)

Euro In full: Eighty eight
In numbers: 88.00

AT: 377	**Saddle DN 1100 mm** Item NET ΥΔΡ 12.17.02.16 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and five
In numbers: 105.00

AT: 378	**Saddle DN 1200 mm** Item NET ΥΔΡ 12.17.02.17 (Revised per item ΥΔΡ 6623)

Euro In full: One hundred and twenty-four
In numbers: 124.00

Construction of straight sections of the network using steel pipes

Construction of straight network sections with spiral seam steel pipes, per ELOT EN 10224, CE marking, steel category L235.

The unit price includes the supply, on site transportation, sideways movement, placing and welding of the pipes, repair of the insulation at the welding locations and the required watertightness inspections.

The construction of special pieces (curves, branching etc.) and their embedment in the trench are priced separately on the basis of the relevant items of the Price List.

Measurement per kilogram (kg) of steel plate according to the nominal diameter and the thickness of the plate foreseen in the design, of a specific gravity 7.85 gr/cm^3, without calculating the weight of the insulation.

Indicative dimensions of steel pipes cross sections are given below.

Dnom. (mm)	Douter (mm)	thickness (mm)	kg/m
Φ 300	323.8	4.0	31.57
Φ 300	323.8	5.0	39.34
Φ 400	406.4	4.5	44.64
Φ 400	406.4	5.2	51.49
Φ 500	508	5.0	62.07
Φ 500	508	6.4	78.62
Φ 600	609.6	5.6	83.48
Φ 600	609.6	7.1	105.72
Φ 700	711.2	6.4	110.46
Φ 700	711.2	8.0	138.84
Φ 800	812.8	8.0	158.90
Φ 800	812.8	9.5	188.74

Dnom. (mm)	Douter (mm)	thickness (mm)	kg/m
Φ 900	914.4	8.0	178.96
Φ 900	914.4	10.0	223.21
Φ 1000	1016	9.0	223.68
Φ 1000	1016	11.0	272.84
Φ 1200	1219.2	10.0	298.44
Φ 1200	1219.2	12.7	378.17
Φ 1500	1524	10.0	373.66
Φ 1500	1524	12.0	447.80
Φ 1800	1828.8	10.0	448.89
Φ 1800	1828.8	14.3	640.39
Φ 2000	2032	11.0	548.67
Φ 2000	2032	14.3	712.11

Price per kilogram (kg)

AT: 379	**Using steel pipes, inner protection of coal tar (bituminous) and outer protection of coal tar (bituminous) and a double layer of glass fiber fabric** Item NET ΥΔΡ 12.18.01 (Revised per item ΥΔΡ 6630.1)

Euro In full: One and eighty-one cents
In numbers: 1.81

AT: 380	**Using steel pipes, outer insulation of coal tar (bituminous) and polyethylene sheet and inner epoxy resin insulation** Item NET ΥΔΡ 12.18.02 (Revised per item ΥΔΡ 6630.1)

Euro In full: One and eighty-five cents
In numbers: 1.85

AT: 381	**Using steel pipes, outer insulation of coal tar (bituminous) and polyethylene sheet and inner insulation made of centrifugally applied concrete (screed)** Item NET ΥΔΡ 12.18.03 (Revised per item ΥΔΡ 6630.1)

Euro In full: One and ninety cents
In numbers: 1.90

Curves, stepdown adaptors and steel pipes joints

Curved, stepdown adaptors and joints for steel pipes made of steel pipe pieces of spiral seam, per ELOT EN 10224, steel category L235, of the same type as the type used in the construction of the straight parts of the network, including the supply of the steel pipes, the on site transportation, cutting of the pieces for the configuration of special items, welding and the repair of the insulation at the welding points and lowering in the trench for connection to the already constructed part of the network.

Measurement per kilogram (kg) of steel plate according to the nominal diameter and the thickness of the plate foreseen in the design, of a specific gravity 7.85 gr/cm^3, without calculating the weight of the insulation.

Price per kilogram (kg) irrespective of the type of the pipe inner and outer insulation.

AT: 382	**Curves, stepdown adaptors and steel pipes joints** Item NET ΥΔΡ 12.19 (Revised per item ΥΔΡ 6630.1)

Euro In full: Three
In numbers: 3.00

Steel welding flanges

Steel welding flanges, regardless diameter, per ELOT EN 1092-1, made of material category P250GH, with galvanized blots and sealing pads, fully connected to the pipe line (on site materials, consumables and labour).

Price per kilogram (kg)

ΑΤ: 383	**Steel welding flanges** Item ΝΕΤ ΥΔΡ 12.20 (Revised per item ΥΔΡ 6651.1)

Euro In full: Four and fifty cents
In numbers: 4.50

Design and construction of cathodic protection

Installation of the steel pipes cathodic protection system, according to the approved design, or according to the design to be prepared by the Contractor, if so stipulated in the Contractual Documents.

Field measurements and the design of the system shall be implemented by specialized engineers with a demonstrable experience in cathodic protection systems, approved by the Service, further to the Contractor's proposal.

Price per network km.

ΑΤ: 384	**Soil electrodynamic and resistance measurements (field works and report preparation)** Item ΝΕΤ ΥΔΡ 12.21.01 (Revised per item ΥΔΡ 6630.1)

Euro In full: One thousand
In numbers: 1,000.00

ΑΤ: 385	**Cathodic protection system design** Item ΝΕΤ ΥΔΡ 12.21.02 (Revised per item ΥΔΡ 6630.1)

Euro In full: One thousand
In numbers: 1,000.00

ΑΤ: 386	**Cathodic protection system construction** Item ΝΕΤ ΥΔΡ 12.21.03 (Revised per item ΥΔΡ 6630.1)

The unit prices includes the anodes, the electrodes, network jumpers, power supply devices (TSs, rectifiers and control instruments within a watertight cubicle IP 65) as well as all materials and works required for the completion of the installation according to the approved design.

Euro In full: Two thousand
In numbers: 2,000.00

FITTINGS FOR PIPING NETWORKS

Slide gate valves, cast steel

Supply, on site delivery and installation in the pipeline of a slide gate valve featuring a cast steel body shell, in line with the design and the Greek Technical Specification 08-06-07-02 "Slide gate valves, cast steel". Galvanized fixing bolts, waterproofing gaskets and trial run included.

Gate valves delivered on site must be accompanied by a laboratory test certificate.

Price per piece (pc) of a gate valve installed in the network.

AT: 387	**Flanged, nominal pressure 16 atm** **Nominal diameter DN 50 mm** Item ΝΕΤ ΥΔΡ 13.03.03.01 (Revised per item ΥΔΡ 6651.1)

Euro In full: One hundred and fifty-two
In numbers: 152.00

AT: 388	**Flanged, nominal pressure 16 atm** **Nominal diameter DN 80 mm** Item ΝΕΤ ΥΔΡ 13.03.03.02 (Revised per item ΥΔΡ 6651.1)

Euro In full: One hundred and eighty-one
In numbers: 181.00

AT: 389	**Flanged, nominal pressure 16 atm** **Nominal diameter DN 100 mm** Item ΝΕΤ ΥΔΡ 13.03.03.03 (Revised per item ΥΔΡ 6651.1)

Euro In full: Two hundred and thirty-eight
In numbers: 238.00

AT: 390	**Flanged, nominal pressure 16 atm** **Nominal diameter DN 150 mm** Item ΝΕΤ ΥΔΡ 13.03.03.05 (Revised per item ΥΔΡ 6651.1)

Euro In full: Three hundred and fifty
In numbers: 350.00

AT: 391	**Flanged, nominal pressure 16 atm** **Nominal diameter DN 200 mm** Item ΝΕΤ ΥΔΡ 13.03.03.07 (Revised per item ΥΔΡ 6651.1)

Euro In full: Five hundred and eighty
In numbers: 580.00

AT: 392	**Flanged, nominal pressure 25 atm** **Nominal diameter DN 80 mm** Item NET ΥΔΡ 13.03.04.01 (Revised per item ΥΔΡ 6651.1)

Euro In full: Three hundred and fifty
In numbers: 350.00

AT: 393	**Flanged, nominal pressure 25 atm** **Nominal diameter DN 100 mm** Item NET ΥΔΡ 13.03.04.02 (Revised per item ΥΔΡ 6651.1)

Euro In full: Four hundred and fifty
In numbers: 450.00

AT: 394	**Flanged, nominal pressure 25 atm** **Nominal diameter DN 150 mm** Item NET ΥΔΡ 13.03.04.03 (Revised per item ΥΔΡ 6651.1)

Euro In full: Seven hundred
In numbers: 700.00

AT: 395	**Flanged, nominal pressure 25 atm** **Nominal diameter DN 200 mm** Item NET ΥΔΡ 13.03.04.04 (Revised per item ΥΔΡ 6651.1)

Euro In full: One thousand
In numbers: 1,000.00

AT: 396	**Flanged, nominal pressure 25 atm** **Nominal diameter DN 300 mm** Item NET ΥΔΡ 13.03.04.05 (Revised per item ΥΔΡ 6651.1)

Euro In full: Two thousand one hundred and forty
In numbers: 2,140.00

Flanged butterfly (wafer) valves, cast steel

Supply, on site delivery and installation in the pipeline of a butterfly (wafer) valve featuring a cast steel body shell, in line with the design and the Greek Technical Specification 08-06-07-03 " Butterfly (wafer) valves, cast steel".
Galvanized fixing bolts, waterproofing gaskets and trial run included.

Butterfly (wafer) valves delivered on site must be accompanied by a laboratory test certificate.

Price per piece (pc) of a butterfly (wafer) valve installed in the network.

AT: 397	**Nominal diameter DN 250 mm, 16 at** Item ΝΕΤ ΥΔΡ 13.04.04.01 (Revised per item ΥΔΡ 6651.1)

Euro In full: One thousand and ninety
In numbers: 1,090.00

AT: 398	**Nominal diameter DN 400 mm, 16 at** Item ΝΕΤ ΥΔΡ 13.04.04.02 (Revised per item ΥΔΡ 6651.1)

Euro In full: Three thousand and ninety
In numbers: 3,090.00

AT: 399	**Nominal diameter DN 500 mm, 16 at** Item ΝΕΤ ΥΔΡ 13.04.04.03 (Revised per item ΥΔΡ 6651.1)

Euro In full: Four thousand two hundred and eighty
In numbers: 4,280.00

AT: 400	**Nominal diameter DN 600 mm, 16 at** Item ΝΕΤ ΥΔΡ 13.04.04.04 (Revised per item ΥΔΡ 6651.1)

Euro In full: Five thousand two hundred and thirty
In numbers: 5,230.00

AT: 401	**Nominal diameter DN 700 mm, 16 at** Item ΝΕΤ ΥΔΡ 13.04.04.05 (Revised per item ΥΔΡ 6651.1)

Euro In full: Five thousand nine hundred and ninety
In numbers: 5,990.00

AT: 402	**Nominal diameter DN 200 mm, 25 at** Item ΝΕΤ ΥΔΡ 13.04.05.01 (Revised per item ΥΔΡ 6651.1)

Euro In full: One thousand and ninety
In numbers: 1,090.00

AT: 403	**Nominal diameter DN 250 mm, 25 at** Item ΝΕΤ ΥΔΡ 13.04.05.02 (Revised per item ΥΔΡ 6651.1)

Euro In full: One thousand four hundred and thirty
In numbers: 1,430.00

AT: 404	**Nominal diameter DN 500 mm, 25 at** Item NET ΥΔΡ 13.04.05.03 (Revised per item ΥΔΡ 6651.1)

Euro In full: Five thousand three hundred and twenty
In numbers: 5,320.00

AT: 405	**Nominal diameter DN 600 mm, 25 at** Item NET ΥΔΡ 13.04.05.04 (Revised per item ΥΔΡ 6651.1)

Euro In full: Seven thousand nine hundred and eighty
In numbers: 7,980.00

AT: 406	**Nominal diameter DN 700 mm, 25 at** Item NET ΥΔΡ 13.04.05.05 (Revised per item ΥΔΡ 6651.1)

Euro In full: Twelve thousand
In numbers: 12,000.00

AT: 407	**Nominal diameter DN 800 mm, 25 at** Item NET ΥΔΡ 13.04.05.06 (Revised per item ΥΔΡ 6651.1)

Euro In full: Sixteen thousand
In numbers: 16,000.00

Kinetic dual orifice air-relief valves

Supply, on site delivery and installation in the pipeline of a kinetic dual orifice air-relief valve with ductile iron body, polypropylene or polyamide float system, silicone membrane, EPDM waterproofing ring and stainless steel axis.

All types of valve fittings, as well as galvanized fixing bolts, waterproofing gaskets and trial run are included.

Valves delivered on site must be accompanied by a laboratory test certificate.

Price per piece (pc) of a valve installed in the network.

AT: 408	**Nominal diameter DN 50 mm, 16 at** Item NET ΥΔΡ 13.10.02.01 (Revised per item ΥΔΡ 6653.1)

Euro In full: One hundred and thirty-seven and fifty cents
In numbers: 137.50

AT: 409	**Nominal diameter DN 80 mm, 16 at** Item NET ΥΔΡ 13.10.02.02 Revised per item ΥΔΡ 6653.1)

Euro In full: Two hundred and forty-seven
In numbers: 247.00

AT: 410	**Nominal diameter DN 100 mm, 16 at** Item NET ΥΔΡ 13.10.02.03 (Revised per item ΥΔΡ 6653.1)

Euro In full: Three hundred and twenty
In numbers: 320.00

AT: 411	**Nominal diameter DN 150 mm, 16 at** Item NET ΥΔΡ 13.10.02.04 (Revised per item ΥΔΡ 6653.1)

Euro In full: Seven hundred and twenty
In numbers: 720.00

AT: 412	**Nominal diameter DN 200 mm, 16 at** Item NET ΥΔΡ 13.10.02.05 (Revised per item ΥΔΡ 6653.1)

Euro In full: One thousand three hundred and fifty
In numbers: 1,350.00

AT: 413	**Nominal diameter DN 50 mm, 25 at** Item NET ΥΔΡ 13.10.03.01 (Revised per item ΥΔΡ 6653.1)

Euro In full: Three hundred and forty
In numbers: 340.00

AT: 414	**Nominal diameter DN 80 mm, 25 at** Item NET ΥΔΡ 13.10.03.02 (Revised per item ΥΔΡ 6653.1)

Euro In full: Four hundred and eighty
In numbers: 480.00

AT: 415	**Nominal diameter DN 100 mm, 25 at** Item NET ΥΔΡ 13.10.03.03 (Revised per item ΥΔΡ 6653.1)

Euro In full: Five hundred and twenty
In numbers: 520.00

AT: 416	**Nominal diameter DN 150 mm, 25 at** Item NET ΥΔΡ 13.10.03.04 (Revised per item ΥΔΡ 6653.1)

Euro In full: Nine hundred and twenty
In numbers: 920.00

AT: 417	**Nominal diameter DN 200 mm, 25 at** Item NET ΥΔΡ 13.10.03.05 (Revised per item ΥΔΡ 6653.1)

Euro In full: One thousand six hundred and twenty
In numbers: 1,620.00

Steel dismantling joints

Supply, on site delivery, installation and connection in the pipeline of a special steel item for the dismantling of fittings (gate valves, valves, etc.) according to the design and the National Technical Specification 08-06-07-05 "Dismantling Joints for Pipeline Fittings".

Galvanized connection joints, flanges and waterproofing gaskets are included.

Dismantling joint pieces delivered on site must be accompanied by a laboratory test certificate.

Price per piece (pc) of a dismantling joint installed.

AT: 418	**Nominal pressure PN 16 at** **Nominal diameter DN 50 mm** Item NET ΥΔΡ 13.15.02.01 (Revised per item ΥΔΡ 6651.1)

Euro In full: Forty-three and eighty-six cents
In numbers: 43.86

AT: 419	**Nominal pressure PN 16 at** **Nominal diameter DN 80 mm** Item NET ΥΔΡ 13.15.02.03 (Revised per item ΥΔΡ 6651.1)

Euro In full: Eighty two
In numbers: 82.00

AT: 420	**Nominal pressure PN 16 at** **Nominal diameter DN 150 mm** Item NET ΥΔΡ 13.15.02.06 (Revised per item ΥΔΡ 6651.1)

Euro In full: One hundred and seventy-one
In numbers: 171.00

AT: 421	**Nominal pressure PN 16 at** **Nominal diameter DN 250 mm**

Item NET ΥΔΡ 13.15.02.09
(Revised per item ΥΔΡ 6651.1)

Euro In full: Four hundred and ten
In numbers: 410.00

AT: 422 **Nominal pressure PN 16 at**
Nominal diameter DN 400 mm
Item NET ΥΔΡ 13.15.02.12
(Revised per item ΥΔΡ 6651.1)

Euro In full: Seven hundred and eighty
In numbers: 780.00

AT: 423 **Nominal pressure PN 16 at**
Nominal diameter DN 500 mm
Item NET ΥΔΡ 13.15.02.14
(Revised per item ΥΔΡ 6651.1)

Euro In full: Nine hundred and seventy
In numbers: 970.00

AT: 424 **Nominal pressure PN 16 at**
Nominal diameter DN 600 mm
Item NET ΥΔΡ 13.15.02.15
(Revised per item ΥΔΡ 6651.1)

Euro In full: One thousand two hundred and forty
In numbers: 1,240.00

AT: 425 **Nominal pressure PN 16 at**
Nominal diameter DN 700 mm
Item NET ΥΔΡ 13.15.02.16
(Revised per item ΥΔΡ 6651.1)

Euro In full: One thousand five hundred and seventy
In numbers: 1,570.00

AT: 426 **Nominal pressure PN 25 at**
Nominal diameter DN 80 mm
Item NET ΥΔΡ 13.15.03.01
(Revised per item ΥΔΡ 6651.1)

Euro In full: Ninety
In numbers: 90.00

AT: 427 **Nominal pressure PN 25 at**
Nominal diameter DN 150 mm
Item NET ΥΔΡ 13.15.03.02
(Revised per item ΥΔΡ 6651.1)

Euro In full: One hundred and eighty-five
In numbers: 185.00

AT: 428	**Nominal pressure PN 25 at Nominal diameter DN 200 mm** Item NET ΥΔΡ 13.15.03.03 (Revised per item ΥΔΡ 6651.1)

Euro In full: Two hundred and seventy-six
In numbers: 276.00

AT: 429	**Nominal pressure PN 25 at Nominal diameter DN 250 mm** Item NET ΥΔΡ 13.15.03.04 (Revised per item ΥΔΡ 6651.1)

Euro In full: Four hundred
In numbers: 400.00

AT: 430	**Nominal pressure PN 25 at Nominal diameter DN 500 mm** Item NET ΥΔΡ 13.15.03.05 (Revised per item ΥΔΡ 6651.1)

Euro In full: Nine hundred and twenty
In numbers: 920.00

AT: 431	**Nominal pressure PN 25 at Nominal diameter DN 600 mm** Item NET ΥΔΡ 13.15.03.06 (Revised per item ΥΔΡ 6651.1)

Euro In full: One thousand two hundred and forty
In numbers: 1,240.00

AT: 432	**Nominal pressure PN 25 at Nominal diameter DN 700 mm** Item NET ΥΔΡ 13.15.03.07 (Revised per item ΥΔΡ 6651.1)

Euro In full: One thousand six hundred
In numbers: 1,600.00

AT: 433	**Nominal pressure PN 25 at Nominal diameter DN 800 mm** Item NET ΥΔΡ 13.15.03.08 (Revised per item ΥΔΡ 6651.1)

Euro In full: Two thousand two hundred and forty
In numbers: 2,240.00

WORKS FOR THE REPAIR AND MAINTENANCE OF NETWORKS AND OTHER MINOR STRUCTURES

AT: 434 **Connection of water sump discharge pipe with the rainwater network**
Item ΝΕΤ ΥΔΡ 16.01
(Revised per item ΥΔΡ 6744)

Connection of the water sump discharge pipe with an existing or constructed rainwater network made of precast reinforced concrete pipes (regardless the main pipes diameter).

The unit price includes all kinds of minor materials, equipment, resources and personnel required for the execution of the works.

Price per piece

Euro In full: Ninety five
In numbers: 95.00

AT: 435 **Retaining of overhead networks pole**
Item ΝΕΤ ΥΔΡ 16.02
(Revised per item ΥΔΡ 6801)

Retaining of overhead PUO networks poles made of wood or metal or concrete during the execution of works at underground networks.

The unit price includes the required auxiliary material, resources and works required for the safe retaining of the pole, as well as the disassembly and removal of the retaining elements after the completion of the works.

Price per piece

Euro In full: Twenty-eight and fifty
In numbers: 28.50

AT: 436 **Construction of connector to concrete pipes for the connection of properties with the sewage network**
Item ΝΕΤ ΥΔΡ 16.03
(Revised per item ΟΙΚ-2226)

Construction of connector to concrete pipes for the connection of properties with the sewage network.

The unit price includes the drilling of a hole on the concrete pipe using a portable drilling device (drilling the hole using percussion power tools is prohibited, because they may inflict damage to the concrete pipe walls), the cutting and installation of the internally vitrified clay pipe or alumino-silicated pipe, with a diameter of up to 160mm, as well as filling with cement mortar or epoxy resin mortar.

Price per piece

Euro In full: Fourteen and thirty cents
In numbers: 14.30

AT: 437	**Connection of a property with the sewage network using PVC/41 pipes with nominal diameter D160 mm** Item ΝΕΤ ΥΔΡ 16.04 (Revised per item ΥΔΡ 6711.1)

Connection of the property with the sewage network or re-construction of the existing connection using PVC/41 pipes with nominal diameter D160 mm, according to ETEP 08-06-02-02 "Sewage networks with u-PVC pipes".

The unit price includes:

- The excavation of the required trench using any necessary means down to the level of the existing sewage pipe or the foreseen level of the new sewage pipe.
- Supply and delivery on site of the required materials for the new connection (PVC/41 pipes, special pieces, embedment sand etc.)
- Dismantling of the existing pipe (if required) and its connection to the existing network connector (saddle type).
- The construction of the new connector pipe, its embedment in sand and the backfilling of the pit.
- Loading and transportation of excavation spoil for disposal at any distance.

The construction of the connector pipe (if required) and the reinstatement of the road pavement and the sidewalk are prized separately on the basis of the relevant price list items.

Price per linear meter

Euro In full: Fourteen and thirty cents
In numbers: 14.30

AT: 438	**Cleaning of rectangular, trough-shaped, oval and circular pipes from carried material and deposits** Item ΝΕΤ ΥΔΡ 16.05 (Revised per item ΥΔΡ 6053)

Cleaning of rectangular, trough-shaped, oval and circular pipes of any diameter from carried material and deposits using mechanical means and manual methods.

The price includes the loading of the removed materials on a truck or tank-truck to be transported for final disposal.
Price per cubic meter (m^3) of deposits.

Euro In full: Nineteen
In numbers: 19.00

Repair of the front panel and the cover of type T sump (side opening)

Repair of the front panel and the cover of type T sump (side opening), which has suffered damage due impacts from vehicles or other causes.

The unit price includes the following:

- The local demolition of the damaged front panel using compressed air hammer and hand tools, as well as cleaning the sump inside from the demolition debris and any carried material that might be present.
- Manual pushing aside of the spoil, their loading on a truck and their transportation for disposal at any distance.
- The aligning of the existing reinforcement and the addition of new reinforcement, if required, by means of welding.
- Construction of the required formwork for minor structures, the installation of the metallic panel, the application of the epoxy resin for bonding old and new concrete, the casting and compaction of C16/20 concrete for the full reinstatement of the sump crown at sidewalk level.
- Removal of the formworks and complete cleaning of the area around the sump from remaining materials etc.

The supply of the metallic panel for the protection of the opening is not included in this item and is priced separately.

Price per repaired sump (piece).

AT: 439	**Repair of sump with damaged front panel and covering, up to 35 cm wide. For the first side opening of the sump.** Item NET ΥΔΡ 16.06.01.01 (Revised per item 50% x ΥΔΡ 6327 + 50% x ΥΔΡ 6301)

Euro In full: Ninety-five
In numbers: 95.00

AT: 440	**Repair of sump with damaged front panel and covering, up to 35 cm wide. For each additional opening.** Item NET ΥΔΡ 16.06.01.02 (Revised per item 50% x ΥΔΡ 6327 + 50% x ΥΔΡ 6301)

Euro In full: Sixty-seven
In numbers: 67.00

AT: 441	**Repair of sump with damaged front panel and covering, wider than 35 cm. For the first side opening of the sump.** Item NET ΥΔΡ 16.06.02.01 (Revised per item 50% x ΥΔΡ 6327 + 50% x ΥΔΡ 6301)

Euro In full: One hundred and forty-three
In numbers: 143.00

AT: 442	**Repair of sump with damaged front panel and covering, wider than 35 cm. For each additional opening.** Item NET ΥΔΡ 16.06.02.02 (Revised per item 50% x ΥΔΡ 6327 + 50% x ΥΔΡ 6301)

Euro In full: Ninety-five
In numbers: 95.00

Fitting the sump grids to the level and gradient of the road pavement

Fitting the sump grids that have been lowered due to settlement of the sump to the level and gradient of the road pavement.

The unit price includes the following:

- Removal of the grid and its base frame;
- Removal of loose or crushed concrete from the sump walls underneath the base frame;
- Construction of the formwork for the additional concrete on the sump walls in order to make it flush with the street level;
- Coating the surface of the old concrete with epoxy bonding resin to ensure strong adherence of the new concrete;
- Temporary fixing of the base frame at the foreseen level using strong pads and new concrete C16/20 casting and compacting, the works and the materials for the demolition of the grid concrete base frame, cleaning and preparation of the new base surface using epoxy resins, forming and casting the new concrete C16/20;
- Dismantling of the formwork, collection and removal of the formwork materials and the debris.

Grid replacement (due to wear or break) is priced separately on the basis of the relevant items of the price list.

Price per repaired grid as follows:

AT: 443	**For the first opening of the sump** Item NET ΥΔΡ 16.07.01 (Revised per item 50% x ΥΔΡ 6327 + 50% x ΥΔΡ 6301)

Euro In full: Seventy-six
In numbers: 76.00

AT: 444	**For each additional opening** Item NET ΥΔΡ 16.07.02 (Revised per item 50% x ΥΔΡ 6327 + 50% x ΥΔΡ 6301)

Euro In full: Twenty-eight and fifty cents
In numbers: 28.50

Cleaning a sump with side opening without a grid (type T)

Cleaning a sump with side opening without a grid (type T) from carried materials and deposits, inspection of its operation regardless the location of the hatch to enter the sump (at the sidewalk or on the street pavement).

The unit price includes the following:

a) Opening and closing (after the completion of the cleaning works) of the hatch leading to the main chamber or the manhole located next to the sump;
b) Loosening of the filing material around the sump and the adjacent manhole (if any) in order to be extracted;
c) Extracting useless material from the sump and their direct loading on a car either manually or with mechanical equipment. Deposing the material even temporarily on the road pavement or the sidewalk is strictly prohibited;
d) Cleaning the side openings and the connection pipe with a high pressure washing machine 110 bar minimum pressure;
e) Coating the sump with lime as required;
f) Thorough cleaning and rinsing of the sump area after the completion of the works;
g) Transportation of useless material to any distance and dumping in approved dumping areas.

It is pointed out that when the sump opening is more than 1.80m long, it counts as two openings.

Price per sump opening (piece)

AT: 445	**Cleaning of single opening sump** Item ΝΕΤ ΥΔΡ 16.08.01 (Revised per item 70% x ΥΔΡ 6120 + 30% x ΥΔΡ 6107)

Euro In full: Thirty-eight
In numbers: 38.00

AT: 446	**Cleaning of sump – each additional opening** Item ΝΕΤ ΥΔΡ 16.08.02 (Revised per item 70% x ΥΔΡ 6120 + 30% x ΥΔΡ 6107)

Euro In full: Nineteen
In numbers: 19.00

AT: 447	**Reconstruction of pipe sections connecting the sump with the rainwater network** Item ΝΕΤ ΥΔΡ 16.09 (Revised per item ΥΔΡ 6730.4)

Reconstruction of clogged pipe sections connecting the sump with the adjacent rainwater network which cannot be cleaned using a high pressure washing machine or which are broken.

The unit price includes the following:

- Excavation of the trench to unearth the pipe at any location (sidewalk or road pavement) using mechanical means and manually assisted (cutting of asphalt layer with asphalt cutter, dismantling of the slab pavement or road pavement, excavation);
- Fencing the worksite area with reflective mesh and installation of signs around the worksite for local traffic regulation (traffic signs, New Jersey plastic barriers, cones etc.);
- Supply of the required length of concrete pipes D 400 mm or plastic pipes D 315 mm to restore the connection, their installation and embedment in compacted crushed quarry material or controlled low strength material;
- Reinstatement of the excavated pavement and restoration of the sidewalk in its prior condition according to ETEP 08-06-08-03 "Retrofitting of concrete paving slabs along constructed underground utilities";
- Collection, loading and transportation for disposal of the excavation spoil and debris as well as complete cleaning of the intervention area.

Price per linear meter of connecting pipe

Euro In full: One hundred and ninety
In numbers: 190.00

AT: 448	**Cutting off water supply from the hydrant** Item ΝΕΤ ΥΔΡ 16.10 (Revised per item ΗΛΜ-4)

Cutting off water supply from the hydrant as instructed by the Water Company (identifying the supply to be isolated on the basis of the meter number, turning off the hydrant, disconnection and plugging the connection pipe end).

Price per intervention (piece).

Euro In full: Three and forty cents
In numbers: 3.40

AT: 449	**Installation or replacement of water supply manhole** Item ΝΕΤ ΥΔΡ 16.11 (Revised per item ΗΛΜ-4)

Supply, transportation on site and installation of precast water supply manhole for a new water supply or for replacing an existing broken manhole.

The unit price includes the following:

a. The removal of the damaged manhole (in case of replacement) and cutting a trench on the sidewalk to install a new one;
b. Installation and embedment in concrete of the manhole metallic base frame which is supplied by the Water Company;
c. Installation and fixation of the new manhole and filling the gaps in the trench with crushed quarry material up to the level of the sidewalk slab paving or other paving;
d. Restoration of the sidewalk to its original state as per ETEP 08-06-08-03 " Retrofitting of concrete paving slabs along constructed underground utilities";
e. Loading and transportation of the debris to any distance as well as complete cleaning of the intervention area.

Price per repaired water supply manhole (piece).

Euro In full: Forty-seven and fifty cents
In numbers: 47.50

ΑΤ: 450	**Repair of water supply manhole** Item ΝΕΤ ΥΔΡ 16.12 (Revised per item ΗΛΜ-4)

Rising to its original level a sunk water supply manhole.

The unit price includes the following:

a. Excavation around the manhole to free its frame from the concrete, re-arrangement of the metallic support frame at the required new level, and manhole embedment in concrete;
b. Installation and fixation of the manhole and complete filling of the gaps in the trench with crushed quarry material up to the sidewalk slab pavement or other pavement;
c. Restoration of the sidewalk to its original state as per ETEP 08-06-08-03 "Retrofitting of concrete paving slabs along constructed underground utilities";
d. Loading and transportation of the debris to any distance, as well as complete cleaning of the intervention area.

Price per repaired water supply manhole (piece).

Euro In full: Twenty-eight and fifty cents
In numbers: 28.50

ΑΤ: 451	**Repair of a leaking water supply connection** Item ΝΕΤ ΥΔΡ 16.13 (Revised per item ΗΛΜ-4)

Intervention to repair a leaking water supply connection, from the water mains or distributor to the water meter.

The unit price includes the following:

a. Supply and transportation on site of the required length of copper pipe or PE (polyethylene) pipe of the same cross section as the existing piping, as well as the hydrants that have to be replaced;
b. Excavation to unearth the connection pipe (dismantling of slab paving, cutting a trench);
c. Installation of a new pipe and/or hydrant, depending on the cause of the leak, and watertightness inspection of the new connection;
d. Restoration of the sidewalk to its original state as per ETEP 08-06-08-03 "Retrofitting of concrete paving slabs along constructed underground utilities";
e. Loading and transportation of the debris to any distance, as well as complete cleaning of the intervention area.

Euro In full: Twenty-eight and fifty cents
In numbers: 28.50

Precast circular manholes for entrance to concrete sewage pipes per ELOT EN 1917, in residential areas

Circular inspection manholes or sewage pipe junction manholes within residential areas of any height (from the flow level up to the street pavement or ground level), made of precast concrete rings and other accessories, according to ELOT EN 1917, with CE marking, fully installed.

The unit price includes the following:

- The cutting of the excavation outline with an asphalt cutter and excavating the trench in any ground, along with any required pumping and retaining;
- Loading, transportation and dumping of excavation spoil to any distance;
- Base layer using C8/10 concrete;
- Supply and delivery on time of the manhole components (rings, crown slab, necks, tops per ELOT EN 124, steps, elastic sealing rings etc.) as well as their assembly according to the supplier's instructions;
- Connection of the incoming and outgoing pipes;
- Backfilling of the free trench volume using graded crushed quarry material compacted in layers or low controlled strength material;
- Reinstatement of the road pavement to its original condition (restoration of the disturbed road and asphalt layers around the trench).

Price per precast concrete manhole per ELOT EN 1917 (piece)

ΑΤ: 452	**Manhole with interior diameter 1.20 m** Item ΝΕΤ ΥΔΡ 16.14.01 (Revised per item ΥΔΡ 6327)

Euro In full: One thousand one hundred and ninety
In numbers: 1,190.00

ΑΤ: 453	**Manhole with interior diameter 1.50 m** Item ΝΕΤ ΥΔΡ 16.14.02 (Revised per item ΥΔΡ 6327)

Euro In full: One thousand five hundred and twenty
In numbers: 1,520.00

ΑΤ: 454	**Manhole with interior diameter 1.80 m** Item ΝΕΤ ΥΔΡ 16.14.03 (Revised per item ΥΔΡ 6327)

Euro In full: One thousand nine hundred
In numbers: 1,900.00

Configuration of the connection of a new water supply pipe to an existing out of service cast iron or asbestos-cement pipe with a Tee piece

Configuration of the connection of a new water supply pipe to an existing cast iron or asbestos-cement pipe, locally isolated from the network, using a special piece (Tee).

The unit price includes the following:

a. Unearthing the existing pipe and thorough exterior cleaning at the location of the new connection (rasping etc.);
b. Placing the exact cutting marks on the existing pipe using the appropriate tool and cutting of the required section to install a special connecting piece using the appropriate cutter;
c. Pumping of water from the trench using a portable pump until leakage from the isolated part of the network stops;
d. Supply and delivery on site of a flanged Tee piece, pipe edge flanges, elastic sealing pads, galvanized fixing bolts and other required components and minor materials for the connection;
e. Connecting the special Tee piece, inspection of the watertightness of the connection (by turning on the isolating valves of the network branch and repair any leakages).

Price per complete connection as per the above, depending on the cross section of the existing pipe, as follows:

ΑΤ: 455	**For existing pipe diameter Φ 80 or Φ 100 mm** Item ΝΕΤ ΥΔΡ 16.15.01 (Revised per item ΗΛΜ-4)

Euro In full: Two hundred and thirty-eight
In numbers: 238.00

ΑΤ: 456	**For existing pipe diameter Φ 150 mm** Item ΝΕΤ ΥΔΡ 16.15.02 (Revised per item ΗΛΜ-4)

Euro In full: Two hundred and eighty-five
In numbers: 285.00

ΑΤ: 457	**For existing pipe diameter Φ 200 mm** Item ΝΕΤ ΥΔΡ 16.15.03 (Revised per item ΗΛΜ-4)

Euro In full: Three hundred and thirty
In numbers: 330.00

ΑΤ: 458	**For existing pipe diameter Φ 250 mm** Item ΝΕΤ ΥΔΡ 16.15.04 (Revised per item ΗΛΜ-4)

Euro In full: Three hundred and eighty
In numbers: 380.00

Connection of a new water supply pipe to an existing in service pipe (not PE pipe) using stainless steel manson tool and high pressure drilling

Connection of a new water supply pipe to an existing one made of any material other than PE (in this case, item ΥΔΡ 16.19 is applicable) using **stainless steel manson tool and high pressure drilling**, without isolating the water supply network on which the subject intervention is made.

The unit price includes the following:

a. Supply and transportation on site of all required special pieces and components for their connection to implement this connection (manson tool, isolation valve, flanges appropriate for the new pipe material etc.);
b. Supply, use and removal of a special high pressure drilling device (sealed type, with hole saw) and other auxiliary tools.
c. Preparation of the surface of the existing pipe to place the manson tool (cleaning, rasping etc.);
d. Installation of the manson tool and the isolation valve, connection of tool, drilling the pipe by retaining the cut off piece inside the hole saw, removal of the tool and placement connection flange.

Price per connection as per the above, depending on the cross section of the existing pipe, as follows:

AT: 459	**For existing pipe diameter Φ 80 or Φ 100 mm** Item NET ΥΔΡ 16.16.01 (Revised per item ΥΔΡ 6630.1)

Euro In full: Two hundred and seventy-one
In numbers: 271.00

AT: 460	**For existing pipe diameter Φ 150 mm** Item NET ΥΔΡ 16.16.02 (Revised per item ΥΔΡ 6630.1)

Euro In full: Three hundred and ten
In numbers: 310.00

AT: 461	**For existing pipe diameter Φ 200 mm** Item NET ΥΔΡ 16.16.03 (Revised per item ΥΔΡ 6630.1)

Euro In full: Four hundred and fifty
In numbers: 450.00

Connection of the new water supply pipe to an existing in service steel pipe network using the high pressure drilling method

Connection of a new water supply pipe made of any type of material to an existing in service steel pipes network, using the high pressure drilling method and a special device.

The unit price includes the following:

a. Supply and transportation on site of all required special steel pieces and components, flanges appropriate for the material of the new pipe, etc.
b. Supply, use and removal of a special high pressure drilling device (sealed type, with hole saw) and all its stabilization equipment;
c. Preparation of the surface of the existing pipe and welding/gluing of the special steel connecting piece with flanged edge.
d. Connection of the device, drilling of the pipe by retaining the cut off piece inside the hole saw, removal of the device and connection the new pipe wit flange.

Price per connection as per the above, depending on the cross section of the existing pipe, as follows:

AT: 462	**For existing pipe diameter Φ 80 or Φ 100 mm** Item NET ΥΔΡ 16.17.01 (Revised per item ΥΔΡ 6630.1)

Euro In full: One hundred and twenty-four
In numbers: 124.00

AT: 463	**For existing pipe diameter Φ 150 mm** Item NET ΥΔΡ 16.17.02 (Revised per item ΥΔΡ 6630.1)

Euro In full: One hundred and sixty-two
In numbers: 162.00

AT: 464	**For existing pipe diameter Φ 200 mm** Item NET ΥΔΡ 16.17.03 (Revised per item ΥΔΡ 6630.1)

Euro In full: One hundred and ninety
In numbers: 190.00

AT: 465	**For existing pipe diameter Φ 250 mm** Item NET ΥΔΡ 16.17.04 (Revised per item ΥΔΡ 6630.1)

Euro In full: Two hundred and thirty-eight
In numbers: 238.00

Connection of a new water supply pipe for the extension of an existing pipe made of any material, which has been disconnected from the network, using special pieces

Connection of a new water supply pipe made of any type of material to extend an existing pipe, without using Tee pieces, having previously disconnected the terminal branch of the existing pipe from the network.

The unit price includes the following:

a. Supply and transportation on site of the required special pieces to connect the new pipe with the existing one (flanges, step-down pieces, galvanized bolts etc.), depending on the construction material of the existing and new pipe;
b. Cutting or removal of the plug from the existing pipe or washing this pipe (if not plugged) and water pumping using a portable water pump;
c. Installation and assembly of the required special pieces to connect the two pipes.

Price per connection, as per the above, depending on the cross section of the existing pipe, as follows:

AT: 466	**For existing pipe diameter Φ 80 or Φ 100 mm** Item NET ΥΔΡ 16.18.01 (Revised per article ΥΔΡ 6611.1 (30%) + ΥΔΡ 6622.1 (70%))

Euro In full: One hundred and fourteen
In numbers: 114.00

AT: 467	**For existing pipe diameter Φ 150 mm** Item NET ΥΔΡ 16.18.02 (Revised per item ΥΔΡ 6611.1 (30%) + ΥΔΡ 6622.1 (70%))

Euro In full: One hundred and thirty-three
In numbers: 133.00

AT: 468	**For existing pipe diameter Φ 200 mm** Item NET ΥΔΡ 16.18.03 (Revised per item ΥΔΡ 6611.1 (30%) + ΥΔΡ 6622.1 (70%))

Euro In full: One hundred and sixty-two
In numbers: 162.00

AT: 469	**For existing pipe diameter Φ 250 mm** Item NET ΥΔΡ 16.18.04 (Revised per item ΥΔΡ 6611.1 (30%) + ΥΔΡ 6622.1 (70%))

Euro In full: Two hundred and twenty-eight
In numbers: 228.00

Disconnection of the existing water supply pipe from the network

Disconnection of the old water supply pipe made of any material from the water supply network.

The unit price includes the following:

a. Supply and transportation on site of a special isolation plug, with the respective flange, the galvanized fixing bolts, the elastic sealing pad, or other materials and components required for the plugging of the pipe (depending on the material it is made of);
b. Turning off the control valve of the subject part of the network, pumping out the water (in case of pipe in service);
c. Cutting the pipe to be disconnected using a pipe cutter, perpendicularly to its axis or at a max angle 45° (in case of steel pipe) and installing a special plugging piece.

Price per intervention for pipe disconnection, based on its diameter, as follows:

AT: 470	**For existing pipe diameter Φ 80 mm** Item NET ΥΔΡ 16.20.01 (Revised per item ΥΔΡ 6630.1 (35%) + ΥΔΡ 6611.1 (65%))

Euro In full: Forty seven and fifty cents
In numbers: 47.50

AT: 471	**For existing pipe diameter Φ 100 mm** Item NET ΥΔΡ 16.20.02 (Revised per item ΥΔΡ 6630.1 (35%) + ΥΔΡ 6611.1 (65%))

Euro In full: Fifty two
In numbers: 52.00

AT: 472	**For existing pipe diameter Φ 150 mm** Item NET ΥΔΡ 16.20.03 (Revised per item ΥΔΡ 6630.1 (35%) + ΥΔΡ 6611.1 (65%))

Euro In full: Sixty two
In numbers: 62.00

AT: 473	**For existing pipe diameter Φ 200 mm** Item NET ΥΔΡ 16.20.04 (Revised per item ΥΔΡ 6630.1 (35%) + ΥΔΡ 6611.1 (65%))

Euro In full: Seventy six
In numbers: 76.00

Installation of multiple distributor Φ63 on existing pipe to install water supplies

Installation of a multiple distributor on existing in service water supply pipe underneath the sidewalk or the road pavement, to install water supplies.

The unit price includes the following:

a. Marking of the road pavement (asphalt or concrete) at the intervention location, using an asphalt cutter and excavation until the water supply pipe is unearthed using mechanical means and/or manually (when the pipe is underneath the road pavement).

b. Boring of a pit at the sidewalk with sufficient dimensions for the installation of the foreseen distributor and/or unearthing of the water supply pipe (if it is underneath the sidewalk), according to the details' drawings of the design, using mechanical means and/or manually (including the dismantling of the slab paving and the concrete paving on the sidewalk at the intervention area).

c. Loading/unloading and transportation at any distance of the excavation spoil and other debris.

d. Transportation on site of the Project of the required special pieces and materials (supplied by the PUO) from the warehouse of the Water Supply Company.

e. Installation of the special water supply piece on the pipe (saddle), of the hydrant, of the connecting pipe Φ32 mm made of PE or copper pipe at the required length up to the distributor valve, of the Φ63 piece of distributor made of PE and of the pipes connecting the distributor with the manholes containing the water meter (flexible pipes, or pipes PE Φ 25 mm with the respective couplers at their ends).

f. The connection of the distributor pipe with the supply pipe using the high pressure drilling method and the appropriate device.

g. The installation of all manholes on a metallic frame provided by the Water Company flush to the sidewalk level, as required for connecting new supplies and directing the existing one to the distributor, having previously concreted the interior frame.

If old type manholes are used, the price also includes the connection of the supply pipe to the special steel pieces (shaped T or Ψ), if required.

h. Backfilling the trench with quarry sand and reinstatement of the sidewalk and road pavement surface to its former state (road layers, asphalt, curbs, slab/concrete paving, etc.), according to ETEP 08-06-08-03 " Retrofitting of concrete paving slabs along constructed underground utilities " AND 08-06-08-04 "Retrofitting of curbs along constructed underground utilities".

Special note is made to the following special application cases of this article:

a. Whenever a property is not foreseen to be equipped with three (3) water supplies in total, all works described in this article are executed, with the exception of the installation of the distributor. In that case, the unit price expressed in this article is reduced by 30%.

b. Whenever the distributor is retrofitted and connected to an existing cut-off valve on the water mains, all other works in this article are executed and are priced with the total price reduced by 70%.

Price for the installation of a distributor (piece) on the water mains made of any material and of any diameter, per group of 4 connection couplers.

For multiple distributors with a total number of connections N higher than 4, the unit price of this article (base price = TB) is adjusted according to the following equation**:**

Application Price = (N/4) x TB x (1.00 – 0.005 x N)

Price for the installation of a distributor (piece) on the water mains made of any material and of any diameter, per group of 4 connection couplers, depending on the distance of the water mains, as follows:

AT: 474	**For a distance of the water mains access from the closest site of the manhole with the water meters ≤ 4,00 m** Item NET ΥΔΡ 16.21.01 (Revised per item ΥΔΡ 6630.1)

Euro In full: One hundred and ninety
In numbers: 190.00

AT: 475	**For a distance of the water mains access from the closest site of the manhole with the water meters > 4,00 m** Item NET ΥΔΡ 16.21.02 (Revised per item ΥΔΡ 6630.1)

Euro In full: Two hundred and nineteen
In numbers: 219.00

AT: 476	**Lowering or raising an existing water supply with copper pipes** Item NET ΥΔΡ 16.22 (Revised per item ΥΔΡ 6630.1)

Re-construction of an existing in-service water supply with copper pipe.

The unit price includes the following:

a. The supply and transportation on site of the required materials and consumables for the re-construction.

b. Cutting the flow in the copper pipe by freezing the water using the appropriate freezing agent, disconnection of the copper pipe from the valve or cutting the pipe at the required point, the addition of a new appropriate piece of pipe and its connection with the old pipe, as well as re-installation of the cutoff valve.

c. Watertightness inspection for the new connection.

Replacement of the old manhole, if required, is priced separately on the basis of the respective Price List item.

Lump Sum Price for the re-construction of an existing water supply (piece).

Euro In full: Twenty-three and eighty cents
In numbers: 23.80

AT: 477	**Locating and adjusting the elevation of the valve manhole as to the road pavement** Item ΝΕΤ ΥΔΡ 16.27 (Revised per item ΟΙΚ 2226)

Adjusting the valve manhole level, either visible or covered, as to the road pavement.

The unit price includes the following:

- Locating the covered valve using metal detector, on the basis of the existing network drawings and other information available to the Service (sketches etc.) by conducting investigations at any required range;

- Excavation around the control pipe and addition of the required type extension or replacement, so that the manhole cover is flush to the road pavement;

- Backfilling the trench with compacted graded crush quarry material and reinstatement of the asphalt layer or slab pavement around the manhole cover;

- Correlating the location of the valve manhole to certain fixed points and compilation of the relevant sketch, according to the Instructions of the Service.

Price per valve manhole (location, adjustment, sketch).

Euro In full: Ninety-five
In numbers: 95.00

AT: 478	**Cleaning the valve manhole** Item ΝΕΤ ΥΔΡ 16.28 (Revised per item ΟΙΚ 2226)

Removing dirt or other materials from the valve manhole and cleaning the pipe controls so as to render feasible the free operation of the valve.

Price per valve manhole of any diameter along with the respective controls (piece)

Euro In full: Nineteen
In numbers: 19.00

Cleaning type A sump with grid

Cleaning type A water sump with grid or side opening and grid and inspection of its operation.

The unit price includes the following:

a) Removing the grid(s) and loosening the deposits;
b) Extracting the deposits from the chamber and direct loading to a tumble truck either manually or with a machine: dumping the deposits even temporarily on the pavement or sidewalk is strictly prohibited;
c) Transportation and dumping of the deposits to any distance at locations designated by the pertinent Authorities;
d) Cleaning the pipe connecting the manhole-sump using the high pressure washing machine, min. pressure 110 bar;
e) Thorough cleaning and rinsing of the manhole area after the completion of the works;
f) Inspection of the sump's good operation and preparation of a relevant report containing any wear and damage to the manhole.

Adjacent water sumps but with separate chambers are counted separately. This article also applies to the cleaning of type B sumps with grid, side opening and inspection manhole.

Price per sump (piece) fully cleaned as per the above.

AT: 479	**Cleaning of type A sump (with grid and side opening) with a single opening** Item NET ΥΔΡ 16.30.01 (Revised per item 70% ΥΔΡ 6120 + 30% ΥΔΡ 6107)

Euro In full: Twenty-three and eighty cents
In numbers: 23.80

AT: 480	**Cleaning of type A sump (with grid and side opening) for each additional opening** Item NET ΥΔΡ 16.30.02 (Revised per item 70% ΥΔΡ 6120 + 30% ΥΔΡ 6107)

Euro In full: Nine and fifty cents
In numbers: 9.50

AT: 481	**Filling the interior of the sump with repair mortar of cement base** Item NET ΥΔΡ 16.35 (Revised per item ΥΔΡ 6373)

Filling the interior of the sump with repair mortar of cement base per ELOT EN 1504-3, with CE marking.

The unit price includes the following:

a) The supply of the repair mortar in sealed packages with CE marking, approved by the Service at the Contractor's proposal, as well as bonding agent if recommended by the manufacturer;
b) Thorough cleaning and preparation of the sump wall surfaces and the widening/cleaning of any existing cracks and fissures;
c) Preparation of the mortar according to the manufacturer's instructions and thorough application so as to have smooth final surfaces;
d) Implementing protection measures for the personnel according to the relevant provisions in force (PPE for execution of works in spaces with evaporative emissions etc.).

Price per kilogram (kg) of repair mortar on the basis of the tare weight shown on the package (e.g. 10 sacks of 25 kg each).

Euro In full: Twelve and forty cents
In numbers: 12.40

Cleaning of sewage pipes using declogging machine

Complete cleaning of the sewage branch extending between two successive sumps over a length of 30 to 60 m, using high pressure washing and suction machine, special equipment and resources, such as chainsaws, injection nozzles for loosening the deposits, suction nozzles etc.

The unit price includes the supply of the necessary water, the suction of the deposits, collection and removal of useless materials, as well as the cost for the traffic regulation measures around the intervention area and the complete cleaning of the area in the vicinity of the sumps after the completion of the works.

Video recording for cleaning inspection purposes is measured separately according to the relevant Price List items.

Price per linear meter (m)

ΑΤ: 482	**Cleaning of sewage pipe DN 200-300 mm** Item ΝΕΤ ΥΔΡ 16.40.01 (Revised per item ΥΔΡ 6120)

Euro In full: Five and ten cents
In numbers: 5.10

ΑΤ: 483	**Cleaning of sewage pipe DN 315-400 mm** Item ΝΕΤ ΥΔΡ 16.40.02 (Revised per item ΥΔΡ 6120)

Euro In full: Six and fifty cents
In numbers: 6.50

ΑΤ: 484	**Cleaning of sewage pipe DN 450-600 mm** Item ΝΕΤ ΥΔΡ 16.40.03 (Revised per item ΥΔΡ 6120)

Euro In full: Seven and eighty cents
In numbers: 7.80

AT: 485	**Digital video recording inside sewage pipes** Item ΝΕΤ ΥΔΡ 16.45 (Revised per item ΥΔΡ 6120)

Inspection of inside the sewage network using CCTV, in order to ascertain any wear, clogging, leaks, failures or unauthorized connections at pipes that have been previously fully cleaned.

The price includes the complete video recording using a pan-and-tilt camera in a mobile system (and not using a manually pushed camera system) as well as the preparation of the Protocol and Report containing the observations and comments about the state of the network.

Inspection shall be carried out according to the stipulations in the European Standards ELOT EN 752-1, EN 752-5, EN 752-7 and the codification standard ELOT EN 13508-2 for sewage pipes outside buildings.

The unit price includes works such as plugging the pipes with an inflatable plug and flow diversion using pumps or other resources, so as to ensure a low level of flow in the pipe not in excess of 10% of its diameter in order to facilitate the works.

The inspection is carried out by a specialized Firm which has in place a quality assurance system for the execution of the specific work and is certified per ISO 9001 by an accredited certification agency.

The entire bulk of work (video, pictures, protocols) shall be delivered to the Service both in a digital and in a printed form, at least in two (2) copies, at least one of which will be colored. More specifically, the Contractor is obliged to deliver to the Project Owner upon completion of the work complete inspection protocols in a printed and digital form per sections of the network extending between two successive sumps (sectors) which shall include at least the following:

- Brief Technical Report suggesting the method of repair of each damage
- Summary Section Report
- Printout of the Report arranged (a) per type – code of damage, (b) per street, and (c) per sector
- Section Graphics, i.e. schematic layout of the pipe indicating the location of the various problem areas
- Digital video recording per sector and delivery of a DVD or a USB stick containing a video file in a format to be selected by the Service
- Tilt graphics, on the basis of the absolute elevation of the manhole bottoms, which shall clearly depict the defective sections of the sector (i.e. sections with dips and heaves)
- Printout of pictures of problem areas per sector
- If the Project Owner provides a digital map: recording of damaged points on a network drawing (.dwg file).

Price per linear meter (m) of inspected pipe extending between two successive sumps, as per the above.

Euro In full: Six
In numbers: 6.00

Point repair of interior pipe walls using fiber glass, not including preparation works

Works for point repair of sewage pipe interior walls at locations where video recording or other kind of inspections have spotted problems, by gluing a fiber glass based fiber using two compounds resin.

This article only refers to the fiberglass gluing works. The works related to the interior cleaning of the pipe and, in general, the works for the preparation of the intervention, including the cutting of protrusions, are priced according to the relevant items of the Price List.

The repair method and consumables shall be in agreement with Standard DIN 1986-3 related to the repair of sewage pipes.

The works shall be executed by a specialized crew, properly equipped, and the ISO 9001 Quality Assurance System shall be adhered to. The intervention methodology and the work crew shall be approved by the Service on the basis of the Contractor's recommendation accompanied by a complete technical envelope.

The scope of this article includes:

1. The repair of cracks or holes which result in visible water in/outflow, based on the video recording results, by internally applying the fiber glass liner to a length proportional to the size of the crack or hole, as well as all required materials, equipment and resources.
2. The repair of the pipe at its connection points where the coupler is disconnected, but no cutting or other preparation is required.
3. The repair of the sewage pipe at the points where individual pipes are connected when there is a visible gap or unsuccessful alignment which generates a gap between the pipes by adding a piece of liner to block the gap.
4. Repair of any other damage to the pipe, which can be repaired by the installation of inner lining without any other preparation.
5. Video recording of the repaired point in order to verify the good outcome of the work and the delivery of the DVD containing video files in a format to be selected by the Service.

The standard weight of the fabric shall be 1100 gr/cm^2, and the average resin consumption 1.6 lt/m^2. The resin shall be compatible with the pipe material. In any event, the repair length shall be at least equal to 150% of the repaired crack or hole and not less than 60 cm.

When the repair takes place in pipes with intense flow and with a diameter larger than 500 mm, regardless the type of damage, an additional intermediate (forth) layer of fabric shall be applied according to the respective cases of this article.

Price per repair point and pipe diameter (piece), as per the following:

AT: 486	**Repair of pipe DN 200-250, along a length of up to 100 cm, with triple layer of fiber glass fiber 1100 gr/cm^2, not including preparation works** Item NET ΥΔΡ 16.50.01 (Revised per item ΥΔΡ 6370)

Euro In full: Three hundred and sixty
In numbers: 360.00

AT: 487	**Repair of pipe DN 200-250, along a length of up to 100 cm, with four layers of fiber glass fiber, not including preparation works** Item NET ΥΔΡ 16.50.02 (Revised per item ΥΔΡ 6370)

Euro In full: Four hundred and ten
In numbers: 410.00

AT: 488	**Repair of pipe DN 200-250, along a length of 101 up to 180 cm, with triple layer of fiber glass fiber 1100 gr/cm^2, not including preparation works** Item NET ΥΔΡ 16.50.03 (Revised per item ΥΔΡ 6370)

Euro In full: Three hundred and eighty
In numbers: 380.00

AT: 489	**Repair of pipe DN 200-250, along a length of 101 up to 180 cm, with four layers of fiber glass fiber, not including preparation works** Item NET ΥΔΡ 16.50.04 (Revised per item ΥΔΡ 6370)

Euro In full: Four hundred and ten
In numbers: 410.00

AT: 490	**Repair of pipe DN 315-400, along a length of up to 100 cm, with triple layer of fiber glass fiber 1100 gr/cm^2, not including preparation works** Item NET ΥΔΡ 16.50.05 (Revised per item ΥΔΡ 6370)

Euro In full: Four hundred
In numbers: 400.00

AT: 491	**Repair of pipe DN 315-400, along a length of up to 100 cm, with four layers of fiber glass fiber, not including preparation works** Item NET ΥΔΡ 16.50.06 (Revised per item ΥΔΡ 6370)

Euro In full: Four hundred and forty
In numbers: 440.00

AT: 492	**Repair of pipe DN 315-400, along a length of 101 up to 180 cm, with triple layer of fiber glass fiber 1100 gr/cm^2, not including preparation works** Item NET ΥΔΡ 16.50.07 (Revised per item ΥΔΡ 6370)

Euro In full: Four hundred and sixty
In numbers: 460.00

AT: 493	**Repair of pipe DN 315-400, along a length of 101 up to 180 cm, with four layers of fiber glass fiber, not including preparation works** Item NET ΥΔΡ 16.50.08 (Revised per item ΥΔΡ 6370)

Euro In full: Fur hundred and ninety
In numbers: 490.00

Interior pipe walls repair by gluing a fiber glass based fabric, including all preparation works

Works of point repair of sewage pipe interior walls at locations where video recording or other kind of inspections have spotted problems, by gluing a fiber glass based fiber (liner) using two compounds resin.

The price includes all required preparatory works, such as cutting of any protrusions inside the pipe, cutting of planted roots, loosening and removing deposits, flow diversion etc., as well as the supply/provision of all required materials, equipment and resources.

The standard weight of the fabric shall be 1100 gr/cm^2, and the average resin consumption 1.6 lt/m^2. The resin shall be compatible with the pipe material.

The repair method and consumables shall be in agreement with Standard DIN 1986-3 related to the repair of sewage pipes.

The works shall be executed by a specialized crew, properly equipped, and the ISO 9001 Quality Assurance System shall be adhered to. The intervention methodology and the work crew shall be approved by the Service on the basis of the Contractor's recommendation accompanied by a complete technical envelope.

The unit price includes video recording of the repaired point in order to verify the good outcome of the work and the delivery of the DVD containing video files in a format to be selected by the Service.

When the repair takes place in pipes with intense flow and with a diameter larger than 500 mm, regardless the type of damage, an additional intermediate (forth) layer of fabric shall be applied according to the respective cases of this article.

In any event, the repair length shall be at least equal to 150% of the repaired crack or hole and not less than 60 cm.

Price per repair point and pipe diameter (piece), as per the following:

AT: 494	**Repair of pipe DN 200-250, along a length of up to 100 cm, with fiber glass fiber 1100 gr/cm^2, including all preparation works** Item NET ΥΔΡ 16.51.01 (Revised per item ΥΔΡ 6370)

Euro In full: Four hundred and forty
In numbers: 440.00

AT: 495	**Repair of pipe DN 200-250, along a length of up to 100 cm, with fiber glass fiber of high mechanical strength, including all preparation works** Item NET ΥΔΡ 16.51.02 (Revised per item ΥΔΡ 6370)

Euro In full: Five hundred and seventy
In numbers: 570.00

AT: 496	**Repair of pipe DN 200-250, along a length of 101 up to 180 cm, with fiber glass fiber 1100 gr/cm^2, including all preparation works** Item NET ΥΔΡ 16.51.03 (Revised per item ΥΔΡ 6370)

Euro In full: Five hundred and sixty
In numbers: 560.00

AT: 497	**Repair of pipe DN 200-250, along a length of 101 up to 180 cm, with fiber glass fiber of high mechanical strength, including all preparation works** Item NET ΥΔΡ 16.51.04 (Revised per item ΥΔΡ 6370)

Euro In full: Seven hundred and twenty
In numbers: 720.00

AT: 498	**Repair of pipe DN 315-400, along a length of up to 100 cm, with fiber glass fiber 1100 gr/cm^2, including all preparation works** Item NET ΥΔΡ 16.51.05 (Revised per item ΥΔΡ 6370)

Euro In full: Four hundred and forty
In numbers: 440.00

AT: 499	**Repair of pipe DN 315-400, along a length of up to 100 cm, with fiber glass fiber of high mechanical strength, including all preparation works** Item NET ΥΔΡ 16.51.06 (Revised per item ΥΔΡ 6370)

Euro In full: Five hundred and seventy
In numbers: 570.00

AT: 500	**Repair of pipe DN 315-400, along a length of 101 up to 180 cm, with fiber glass fiber 1100 gr/cm^2, including all preparation works** Item NET ΥΔΡ 16.51.07 (Revised per item ΥΔΡ 6370)

Euro In full: Five hundred and sixty
In numbers: 560.00

AT: 501	**Repair of pipe DN 315-400, along a length of 100 up to 180 cm, with fiber glass fiber of high mechanical strength, including all preparation works** Item NET ΥΔΡ 16.51.08 (Revised per item ΥΔΡ 6370)

Euro In full: Seven hundred and twenty
In numbers: 720.00

Repair of flow connections to the sewage network, via intervention from inside the pipe, without a trench

Repair to connections with the sewage network where there is rainwater inflow or leakage, by cutting any protrusion of the connection pipe inside the sewage pipe, the addition of fiber glass saddle at the connection point and gluing it with epoxy resin; the work is executed from the inside of the sewage duct without cutting a trench.

The work is executed by remotely controlling a special electrically powered moving trolley equipped with a video camera and moving inside the duct, fed through the compressed air piping and is properly equipped for the execution of the repair works. The repair works are preceded by a video recording inside the sewage duct (priced separately) in order to identify and to record problematic areas.

The works shall be executed by a specialized crew, properly equipped, and the ISO 9001 Quality Assurance System shall be adhered to. The intervention methodology and the work crew shall be approved by the Service on the basis of the Contractor's recommendation accompanied by a complete technical envelope.

The unit price includes all types of material and equipment required for the execution of the works, as well as all foreseen (if any) works for the repair (such as cutting of any protrusions inside the pipe, cutting of planted roots, loosening and removing deposits, flow diversion etc.).

Lump Sum Price (piece) for each complete repair, as defined below.

AT: 502	**Repair of side connections up to Φ160 to Φ200-600 ducts, not including preparation works** Item NET ΥΔΡ 16.52.01 (Revised per item ΥΔΡ 6370)

Euro In full: Six hundred
In numbers: 600.00

AT: 503	**Repair of side connections up to Φ160 to Φ200-600 ducts, including all preparation works** Item NET ΥΔΡ 16.52.02 (Revised per item ΥΔΡ 6370)

Euro In full: Seven hundred and twenty
In numbers: 720.00

Sewage pipe elastic coupler stainless steel shield

Supply and installation of elastic coupler for the repair or connection to a sewage network, with stainless steel shielding, suitable for sewage environment and pipes made of various materials, providing the ability to connect pipes with an external diameter difference of at least 15 mm, approved by the Service on the basis of the Contractor's recommendation.

The unit price includes the supply of the coupler and the materials/resources for application/fixing, cutting of the pipe, preparation of the connection surfaces and placement of the coupler according to the Supplier's instructions.

Price per piece.

ΑΤ: 504	**For pipes DN 200-250 mm** Item ΝΕΤ ΥΔΡ 16.53.01 (Revised per item ΥΔΡ 6370)

Euro In full: One hundred and fifteen
In numbers: 115.00

ΑΤ: 505	**For pipes DN 315 mm** Item ΝΕΤ ΥΔΡ 16.53.02 (Revised per item ΥΔΡ 6370)

Euro In full: One hundred and thirty-five
In numbers: 135.00

ΑΤ: 506	**For pipes DN 400 mm** Item ΝΕΤ ΥΔΡ 16.53.03 (Revised per item ΥΔΡ 6370)

Euro In full: One hundred and ninety-five
In numbers: 195.00

GROUP D: E/M WORKS

STREET LIGHTING INSTALLATIONS

Steel Street Lighting Columns

Supply, transportation on site and installation of steel galvanized street lighting columns, manufactured per ELOT EN 40-5 "Lighting Columns – Part 5: Requirements for Steel Lighting Columns" and per Greek Technical Specifications ETEP 05-07-01-00 "Infrastructure for Street Lighting" and 05-07-02-00 "Street Lighting Columns and Fixtures".

The unit prices also include the following individual works/materials:

- Excavation of trenches in all types of soil and backfilling;
- Cable conduits incorporating the cable guide (HDPE per ELOT EN 61386 "Conduit Systems for cable management" or galvanized steel conduits per ELOT EN 10255);
- Protection of cable conduits either by means of concrete or quarry sand, based on the typical cross-section of the design;
- Special cable pulling manholes along with their top, per ELOT EN 124, completely installed;
- Copper earthing pipes and the respective percentage of grounding plates;
- Earthing pipes' terminals;
- Cables feeding the columns, as provided for by the design;
- Supply and transportation on site of steel columns and their precast base, made of reinforced concrete, incorporating the anchoring cage made of hot deep galvanized rods and cable pulling manhole with cast iron top per ELOT EN 124, duly configured as per Work Construction Standards;
- The terminal box of the column, single or multiple, along with its hatch and the locking mechanism;
- Erection and fixing the columns on the anchoring bolts by means of eight (8) nuts, on the top and bottom, using the appropriate lifting equipment (leveling nuts on bottom and Nyloc nuts on the top);
- Filling the void underneath the column base using non-shrink cement grout, after leveling and clamping of bolts;
- The required electrical connections.

Price per installed steel street lighting column, depending on its height, as follows:

ΑΤ: 507	**Steel Street Lighting Column – 6.00 m high** Item ΝΕΤ ΗΛΜ 60.10.01.01 (Revised per item ΗΛΜ-101)
EURO	In full: One thousand In numbers: 1,000.00

AT: 508	**Steel Street Lighting Column – 9.00 m high** Item ΝΕΤ ΗΛΜ 60.10.01.02 (Revised per item ΗΛΜ-101)

EURO	In full: One thousand two hundred In numbers: 1,200.00

AT: 509	**Steel Street Lighting Column – 10.00 m high** Item ΝΕΤ ΗΛΜ 60.10.01.03 (Revised per item ΗΛΜ-101)

EURO	In full: One thousand two hundred and fifty In numbers: 1,250.00

AT: 510	**Steel Street Lighting Column – 12.00 m high** Item ΝΕΤ ΗΛΜ 60.10.01.05 (Revised per item ΗΛΜ-101)

EURO	In full: One thousand four hundred In numbers: 1,400.00

AT: 511	**Steel Street Lighting Column – 15.00 m high** Item ΝΕΤ ΗΛΜ 60.10.01.05 (Revised per item ΗΛΜ-101)

EURO	In full: One thousand six hundred In numbers: 1,600.00

Street lighting cement columns

Supply, transportation on site and installation of street lighting cement columns per ELOT EN 40-9 "Lighting columns – Part 9: Special requirements for lighting columns made of reinforced and pre-stressed concrete", in line with ETEP 05-07-01-00 "Infrastructure for Street Lighting" and 05-07-02-00 "Street Lighting Columns and Fixtures".

The unit prices also include the following individual works/materials:

- Excavation of trenches in all types of soil and backfilling;
- Cable conduits incorporating the cable guide (HDPE per ELOT EN 61386 "Conduit Systems for cable management" or galvanized steel conduits per ELOT EN 10255);
- Protection of cable conduits either by means of concrete or quarry sand, based on the typical cross-section of the design;
- Special cable pulling manholes along with their top, per ELOT EN 124, completely installed;
- Copper earthing pipes and the respective percentage of grounding plates;
- Earthing pipes' terminals;

- Cables feeding the columns, as provided for by the design;
- Supply and transportation on site of reinforced cement column to accommodate a lighting fixture either on top or on an arm, centrifugal casting, top diameter 110mm, featuring a hole with a bronze or aluminum frame and a hatch for the installation of a terminal box, as well as a hole intended for the underground feeding cable;
- Supply and transportation on site of the precast column base made of reinforced concrete C20/25, with a central hole for the installation of a cement pipe Φ40 to support the cement column, a side hole intended for the feeding cable and a cable pulling manhole with cast iron top per ELOT EN 124, duly configured as per Work Construction Standards;
- The installation of the cement pipe Φ40 on the base and its embedment using concrete C20/25, the installation and leveling of the cement column using the appropriate lifting equipment and its final leveling and embedment within the cement pipe Φ40 using sand, up to a level of 15cm from the base surface and then concrete C20/25;
- The terminal box of the column, single or multiple, along with its hatch and the locking mechanism;
- The required electrical connections.

Price per installed cement street lighting column, depending on its height, as follows:

AT: 512	**Cement column, 5.00m high, external base diameter 185 mm, weighing 240 kg, on a base of 1.00x1.00m and 1.50m deep** Item ΝΕΤ ΗΛΜ 60.10.02.01 (Revised per item ΗΛΜ-100)
EURO	In full: Nine hundred In numbers: 900.00

AT: 513	**Cement column, 6.00m high, external base diameter 200 mm, weighing 280 kg, on a base of 1.00x1.00m and 1.50m deep** Item ΝΕΤ ΗΛΜ 60.10.02.02 (Revised per item ΗΛΜ-100)
EURO	In full: Nine hundred and fifty In numbers: 950.00

AT: 514	**Cement column, 7.00m high, external base diameter 215 mm, weighing 320 kg, on a base of 1.00x1.00m and 1.50m deep** Item ΝΕΤ ΗΛΜ 60.10.02.03 (Revised per item ΗΛΜ-100)
EURO	In full: One thousand and fifty In numbers: 1,050.00

AT: 515	**Cement column, 9.00m high, external base diameter 245 mm, weighing 485 kg, on a base of 1.00x1.00m and 1.50m deep** Item NET ΗΛΜ 60.10.02.04 (Revised per item ΗΛΜ-100)

EURO In full: One thousand one hundred and fifty
In numbers: 1,150.00

AT: 516	**Cement column, 10.00m high, external base diameter 260 mm, weighing 600 kg, on a base of 1.00x1.00m and 1.50m deep** Item NET ΗΛΜ 60.10.02.05 (Revised per item ΗΛΜ-100)

EURO In full: One thousand two hundred
In numbers: 1,200.00

AT: 517	**Cement column, 11.00m high, external base diameter 275 mm, weighing 750 kg, on a base of 1.50x1.50m and 2.00m deep** Item NET ΗΛΜ 60.10.02.06 (Revised per item ΗΛΜ-100)

EURO In full: One thousand three hundred
In numbers: 1,300.00

AT: 518	**Cement column, 12.00m high, external base diameter 290 mm, weighing 850 kg, on a base of 1.50x1.50m and 2.00m deep** Item NET ΗΛΜ 60.10.02.07 (Revised per item ΗΛΜ-100)

EURO In full: One thousand three hundred and fifty
In numbers: 1,350.00

AT: 519	**Cement column, 13.00m high, external base diameter 305 mm, weighing 1000 kg, on a base of 1.50x1.50m and 2.00m deep** Item NET ΗΛΜ 60.10.02.08 (Revised per item ΗΛΜ-100)

EURO In full: One thousand four hundred
In numbers: 1,400.00

AT: 520	**Cement column, 14.00m high, external base diameter 320 mm, weighing 1100 kg, on a base of 1.50x1.50m and 2.00m deep** Item NET ΗΛΜ 60.10.02.09 (Revised per item ΗΛΜ-100)

EURO In full: One thousand four hundred and fifty
In numbers: 1,450.00

Arm luminaires for street lighting with NaLP lamps - semi cut-off

Street lighting luminaires with low pressure natrium vapor lamps, per ELOT EN 60598-2-3, water tight, with a minimum protection class IP 66 for the lamps area and IP 43 for the electrical items area, single or multiple, along with the respective arm made of steel tubes with metal collars Φ42 or Φ60 mm, per ELOT EN 40-7, along with the galvanized steel pipe and the special metal termination fitted to the top of the column made of reinforced concrete for the reception of the luminaire per ELOT EN 40-2.7, fully galvanized with a 60 μm thick (500 g/m²) coating, per ELOT EN ISO 1641, the respective Na lamp, in line with the design and ETEP 05-07-02-00 "Street Lighting Columns and Fixtures".

The unit prices include the following:

- Supply of a single or double galvanized arm (ratio per luminaire), linear-shaped, whose projection length and inclination depends on the foreseen luminaires, as well as on its fixing components on the column arc, stainless steel or galvanized;
- Supply of the luminaire (complete, equipped with touch items);
- Supply of Na vapor lamp – type and power as foreseen by the design;
- Assembly of the luminaire and the arm at the top of the column;
- Feeding cables of the luminaires - type A05VV-U (NYM single core), cross section 3x1.5 mm^2 (from the terminal box up to the luminaire) and their connection);

The minimum "life" of economy NaLP lamps will be equal to 15,000 hours.

Price per installed luminaire with its arm depending on the type and power of the lamp as follows;

AT: 521	**Wattage 180 W** Item NET ΗΛΜ 60.10.10.01 (Revised per item ΗΛΜ-103)

EURO In full: Four hundred
In numbers: 400.00

Arm lighting fixtures for street lighting with NaHP lamps semi cut-off

Street lighting luminaires with high pressure natrium vapor lamps, per ELOT EN 60598-2-3, water tight, with a minimum protection class IP 66 for the lamps area and IP 43 for the electrical items area, single or multiple, along with the respective arm made of steel tubes with metal collars Φ42 or Φ60 mm, per ELOT EN 40-7, along with the galvanized steel pipe and the special metal termination fitted to the top of the column made of reinforced concrete for the reception of the luminaire per ELOT EN 40-2.7, fully galvanized with a 60 μm thick (500 g/m²) coating, per ELOT EN ISO 1641, the respective Na lamp, in line with the design and ETEP 05-07-02-00 "Street Lighting Columns and Fixtures".

The minimum "life" of economy NaHP lamps will be equal to 15,000 hours.

It is clarified that as concerns NaHP luminaires, pear-shaped coated or tubular transparent lamps may be used.

The unit prices include the following:

- Supply of a single or double galvanized arm (ratio per luminaire), linear-shaped, whose projection length and inclination depends on the foreseen luminaires, as well as on its fixing components on the column arc, stainless steel or galvanized;
- Supply of the luminaire (complete, equipped with touch items);
- Supply of Na vapor lamp – type and power as foreseen by the design;
- Assembly of the luminaire and the arm at the top of the column;
- Feeding cables of the luminaires - type A05VV-U (NYM single core), cross section 3x1.5mm^2 (from the terminal box up to the luminaire) and their connection.

Price per installed luminaire with its arm depending on the type and power of the lamp as follows:

AT: 522	**Wattage 70 W** Item ΝΕΤ ΗΛΜ 60.10.20.01 (Revised per item ΗΛΜ-103)
EURO	In full: Two hundred and fifty In numbers: 250.00

AT: 523	**Wattage 100 W** Item ΝΕΤ ΗΛΜ 60.10.20.02 (Revised per item ΗΛΜ-103)
EURO	In full: Two hundred and eighty In numbers: 280.00

AT: 524	**Wattage 150 W** Item ΝΕΤ ΗΛΜ 60.10.20.03 (Revised per item ΗΛΜ-103)

EURO In full: Three hundred
In numbers: 300.00

AT: 525	**Wattage 250 W** Item ΝΕΤ ΗΛΜ 60.10.20.04 (Revised per item ΗΛΜ-103)

EURO In full: Three hundred and twenty
In numbers: 320.00

AT: 526	**Wattage 400 W** Item ΝΕΤ ΗΛΜ 60.10.20.05 (Revised per item ΗΛΜ-103)

EURO In full: Three hundred and forty
In numbers: 340.00

Street lighting pillars

Watertight metal boxes for feeding street lighting columns (pillars), IP55 protection class, for outdoor installation, with foundation base made of concrete, in line with to the design and ETEP 05-07-01-00 "Infrastructure for road lighting".

The unit price will include the following:

- Supply and transportation on site of the watertight metal box (pillar) with a pitched roof, with a 5 cm protrusion (at the periphery) for storm water discharging purposes, made of cold roll metal sheet 2mm thick, hot deep galvanized at the inner and outer parts, after manufacturing, with the minimum use of zinc 400 g/m^2 (50 μm), with double epoxy coating of dry film thickness 125 μm each, equipped with rubber gaskets to provide water tightness of the hatch, stainless steel safety lock, identical keys for all pillars of the project and a sign presenting the Project Owner data;
- Excavation and backfilling of the trench of the pillar's foundation base;
- Pillar base; made of reinforced concrete, cast in situ or pre-fabricated, for the pillar to be founded on +40 cm from the surrounding area, and a central hole intended for underground cables routing;
- Copper earthing pipes and a grounding slab;
- Earthing pipes' terminals;
- Water tight power supply distribution inside the pillar, with lighting circuits cut-off and protection instruments, IP 44 protection switchboard made of painted metal sheet or of non-combustible thermoplastic material of sufficient dimensions to fit all instruments, with holes

equipped with the suitable glands to accommodate the input and output of the power supply and remote control cables;

- Any kind of instruments inside the box: load master switch, master fuses, automatic magnothermic switches and remote control power relays (per lighting circuit), relays to reduce lighting power during night (if foreseen), touch activated time switch, touch activated time switch to reduce lighting power during night (if foreseen), 16A socket type schuko, lamp for night work within a waterproof lighting fixture with a safety cover (ARMATURE type) and terminal blocks for the connection of cables (at the bottom of the box);
- Engagement of personnel, items of equipment and means for the installation, connections and the operation control;

Price per street lighting power supply pillar depending on the number of outputs as follows:

AT: 527	**Four-output street lighting pillar** Item ΝΕΤ ΗΛΜ 60.10.80.01 (Revised per item ΗΛΜ-52)
EURO	In full: Two thousand five hundred In numbers: 2.500,00

AT: 528	**Eight-output street lighting pillar** Item ΝΕΤ ΗΛΜ 60.10.80.02 (Revised per item ΗΛΜ-52)
EURO	In full: Two thousand seven hundred and fifty In numbers: 2,750.00

AT: 529	**Twenty-output street lighting pillar** Item ΝΕΤ ΗΛΜ 60.10.80.03 (Revised per item ΗΛΜ-52)
EURO	In full: Three thousand two hundred and fifty In numbers: 3,250.00

AT: 530	**Twenty-five output street lighting pillar** Item ΝΕΤ ΗΛΜ 60.10.80.04 (Revised per item ΗΛΜ-52)
EURO	In full: Three thousand five hundred In numbers: 3,500.00

AT: 531	**Thirty-output street lighting pillar** Item ΝΕΤ ΗΛΜ 60.10.80.05 (Revised per item ΗΛΜ-52)

EURO In full: Three thousand seven hundred and fifty
In numbers: 3,750.00

Underground cables pulling and connecting manholes

Construction of cables pulling and connecting manhole made of C12/15 concrete, reinforced with B500C structural mesh, minimum width of walls 10 cm for pulling manholes and 15 cm for connecting manholes; design detail drawings apply as to the remaining items.

The unit price will include:

- Excavation and backfilling of the trench;
- On site concreting or supply and installation of a prefabricated manhole;
- Configuration of the holes for cable conduits input and output;
- Waterproof top made of diamond-shaped steel founded on a steel frame through a rubber gasket, locking layout ensured through a special tool and anti-rust protection (two layers of zinc rust primer and two layers of epoxy paint);
- Labeling of the manhole in line with the design specifications.

Price per cable manhole with inside dimensions (L X W) as follows:

AT: 532	**Cable pulling manhole 40x40 cm** Item ΝΕΤ ΗΛΜ 60.10.85.01 (Revised per item ΟΔΟ-2548)

EURO In full: Sixty
In numbers: 60.00

AT: 533	**Cable pulling manhole 60x40 cm** Item ΝΕΤ ΗΛΜ 60.10.85.02 (Revised per item ΟΔΟ-2548)

EURO In full: One hundred
In numbers: 100.00

AT: 534	**Cable connecting manhole 120x80 cm** Item ΝΕΤ ΗΛΜ 60.10.85.03 (Revised per item ΟΔΟ-2548)

EURO In full: One hundred and seventy
In numbers: 170.00

TRAFFIC LIGHTS

Installation of local traffic light controller

Installation of a local traffic light controller of a capacity as stated below, (provided either by the Contractor or by the Service) in line with the applicable relevant National Technical Specifications, with the option for integration into the Traffic Management System, accommodating the suitable additional equipment, whose cost is not included in this item.

The unit price will include:

- The traffic light controller outer box for its installation together with the respective steel base;
- The assembly of the controller with the required equipment at structural units (plates) and auxiliary equipment for implementation of the approved design;
- Installation of the junction traffic plan in the controller;
- Compilation of the controller cross-connection drawings and programming;
- Connection and setting of detectors, pedestrian call buttons and audible warning signs, foreseen by the traffic study, connection of the power and low voltage cables of the outdoor network terminating thereto and trial run of the junction signaling.

Price per installed traffic light controller, fully operating.

AT: 535	**Installation of controller - Medium capacity pack - Up to sixteen (16) traffic light groups provided by the Service** Item ΝΕΤ ΗΛΜ 60.20.10.01 (Revised per item ΗΛΜ-105)

EURO In full: Seven hundred and fifty
In numbers: 750.00

AT: 536	**Installation of controller - Large capacity pack - Up to thirty two (32) traffic light groups provided by the Service** Item ΝΕΤ ΗΛΜ 60.20.10.02 (Revised per item ΗΛΜ-105)

EURO In full: One thousand two hundred
In numbers: 1,200.00

AT: 537	**Supply and installation of controller - Medium capacity pack – Equipped with up to four (4) groups of traffic lights, expandable for use with corresponding structural output units, cabling etc., auxiliary equipment, up to sixteen (16) groups of traffic lights** Item NET ΗΛΜ 60.20.10.03 (Revised per item ΗΛΜ-105)

EURO In full: Five thousand five hundred
In numbers: 5,500.00

AT: 538	**Supply and installation of controller - Large capacity pack – Equipped with up to eight (8) groups of traffic lights, expandable for use with corresponding structural output units, cabling etc., auxiliary equipment, up to thirty two (32) groups of traffic lights** Item NET ΗΛΜ 60.20.10.04 (Revised per item ΗΛΜ-105)

EURO In full: Nine thousand
In numbers: 9,000.00

AT: 539	**Supply and installation of an output unit for four (4) groups of traffic lights for extending the capacity of the controller** Item NET ΗΛΜ 60.20.11 (Revised per item ΗΛΜ-105)

Supply, installation and full connection to any type of controller of one output unit item along with its relevant cabling and other auxiliary equipment for extending its capacity for setting four (4) additional traffic light groups, according to the applicable National Technical Specification.

Price per controller extension unit, fully operational.

EURO In full: Eight hundred
In numbers: 800.00

AT: 540	**Inductive loop vehicle detector unit, capacity: four-channel detection** Item NET ΗΛΜ 60.20.12 (Revised per item ΗΛΜ-105)

Supply, installation and full connection of a vehicle detection unit, four-channel inductive loop, to any type of controller and trial run of the detector system of the junction, as per the applicable National Technical Specification.

Price per unit, fully operating.

EURO In full: Seven hundred and fifty
In numbers: 750.00

LED traffic lights

Vehicle circulation traffic lights, signal head dimensions as stated below, per ELOT EN 12368, visors and LED light sources, along with the components for fastening them on signaling masts. The requirements of the National Technical Specification apply as to the remaining items.

The unit price will include:

- The supply of the traffic light with its fixing fittings or the mounting system with the respective frame (in case of mounted traffic lights)
- The signal heads with the symbols of the illuminated signs that may be required (e.g. direction arrows, pedestrian stop or crossing etc.)
- Cables for its connection to the column and their protection sheath
- Installation at pre-determined column locations (bolted holes) or its mounting on an arm
- Supply of the fixing bolts and connection of the terminations of its cables at the terminal strip of the column
- Check and trial run.

Piece per traffic light.

AT: 541	**Small height traffic light for vehicles, three (3) luminous fields, diameter 200 mm, colored signals (red-amber-green) or (red-amber-amber)** Item ΝΕΤ ΗΛΜ 60.20.20.01 (Revised per item ΗΛΜ-105)
EURO	In full: Five hundred and twenty In numbers: 520.00

AT: 542	**Small height traffic light for pedestrians, two (2) luminous fields, Φ 200 mm, colored signals (red-green)** Item ΝΕΤ ΗΛΜ 60.20.20.02 (Revised per item ΗΛΜ-105)
EURO	In full: Three hundred and ninety In numbers: 390.00

AT: 543	**Small height warning traffic light, two (2) luminous fields, Φ 200 mm, colored signals (amber-amber)** Item ΝΕΤ ΗΛΜ 60.20.20.03 (Revised per item ΗΛΜ-105)
EURO	In full: Two hundred and seventy In numbers: 270.00

AT: 544	**Mounted traffic light for vehicles, three (3) luminous fields, Φ 300 mm, colored signals (red-amber-green) or (red-amber- amber)** Item ΝΕΤ ΗΛΜ 60.20.20.04 (Revised per item ΗΛΜ-105)

EURO In full: Seven hundred and fifty
In numbers: 750.00

AT: 545	**Mounted warning traffic light, two (2) luminous fields, Φ 300 mm, colored signals (amber-amber)** Item ΝΕΤ ΗΛΜ 60.20.20.05 (Revised per item ΗΛΜ-105)

EURO In full: Four hundred and eighty
In numbers: 480.00

Traffic lights cabling

Supply, installation and electrical connection of traffic lights cables on any existing conduit - either empty or containing a cable manager or other cables-, dismantling and transportation to the Service's warehouse of any useless cables existing inside the conduits (for the routing of the new cables). Cleaning of the cable pulling manholes/splicing, if any, also included.

This item is also valid in case cables are laid in a conduit, that already contains other cables which cannot be dismantled, by using a new cable manager, if possible.

Price per cable linear meter.

AT: 546	**Supply, installation and electrical connection of a cable E1VV-R (NYY), stranded, cross-section 21X1.5 mm^2** Item ΝΕΤ ΗΛΜ 60.20.30.01 (Revised per item ΗΛΜ-48)

EURO In full: Seven and sixty cents
In numbers: 7.60

AT: 547	**Supply, installation and electrical connection of a cable J1VV-U (NYY) single-core, cross-section 21X1.5 mm^2** Item ΝΕΤ ΗΛΜ 60.20.30.02 (Revised per item ΗΛΜ-48)

EURO In full: Seven and thirty cents
In numbers: 7.30

AT: 548	**Supply, installation and electrical connection of a cable E1VV-R (NYY) stranded, cross-section 5X1.5 mm^2** Item NET HΛM 60.20.30.03 (Revised per item HΛM-48)

EURO In full: Five and eighty cents
In numbers: 5.80

AT: 549	**Supply, installation and electrical connection of a cable J1VV-U (NYY) single-core, cross-section 5X1.5 mm^2** Item NET HΛM 60.20.30.04 (Revised per item HΛM-48)

EURO In full: Five and sixty cents
In numbers: 5.60

AT: 550	**Supply, installation and electrical connection of a cable A-2Y (L)2Y (PET), 2 to 4 pairs, cross-section of each conduit 0.6 mm^2** Item NET HΛM 60.20.30.05 (Revised per item HΛM-48)

EURO In full: Four
In numbers: 4.00

AT: 551	**Supply, installation and electrical connection of a cable A-2Y(L)2Y (PET), 6 to 10 pairs, cross-section of each conduit 0.6 mm^2** Item NET HΛM 60.20.30.06 (Revised per item HΛM-48)

EURO In full: Five and fifty cents
In numbers: 5.50

AT: 552	**Detector loop structure in the asphalt pavement** Item NET HΛM 60.20.35 (Revised per item HΛM-102)

Structure of an induction loop vehicle detector system in the asphalt pavement.

The unit price will include:

- Supply of the integrated materials and availability of the required equipment and means for the execution of the works, including introduction of safety measures for temporary traffic regulation for the protection of the worksite area.
- Boring of a trench on the asphalt pavement up to 7cm deep using a concrete cut-off saw for loop configuration.

- Possible cutting of the gutter of the curb and/or of the wall of the signalling manhole, supply and installation of a flexible duct for the protection of HDPE cables, from the edge of the asphalt pavement up to the signalling manhole.
- Supply and installation in the trench of the loop featuring the necessary number of threads, cable type HO7V-K (NYAF), cross-section 1.5 mm^2 and connection, inside the manhole, with the cable, type A-2Y(L)2Y (PET), (2 to 6 pairs).
- Embedding the cable conduits inside the trench intended for the loops using the appropriate material (epoxy asphalt) for cable protection, as per the regulations.
- Filling the trench up to the road pavement surface using polymer sand-asphalt mixture (cold mix asphalt).

Price per linear meter.

EURO In full: Thirty
In numbers: 30.00

Infrastructure works for traffic lights

AT: 553	**Steel, galvanized cable conduits for traffic lights** **Nominal diameter DN 50 mm (thread: 2''), 3.2 mm thick** Item ΝΕΤ ΗΛΜ 60.20.40.01 (Revised per item ΗΛΜ-5)

Signaling cable routing tubes underneath the road pavement or elsewhere as deemed technically appropriate using galvanized steel tubes, seamed and threaded, per ELOT EN 10255, made of steel S195T, class L (green color code), nominal diameter (DN) and wall thickness as specified below.

The price includes supply and transportation on site of the conduits, galvanized wire for cable pulling, special galvanized items of equipment, installation and connection of the conduits, installation of the wire for cable pulling, conduits labeling and configuring bands of conduits, where foreseen.

Excavation and backfilling of the trench as well as embedment of the conduits using concrete are priced on the basis of the pertinent items of the Price List.

Price per axial length of the pipe line.

EURO In full: Twelve and fifty cents
In numbers: 12.50

AT: 554	**Steel, galvanized cable conduits for traffic lights** **Nominal diameter DN 63 mm, thread: 2½'', 3.6 mm thick** Item NET HΛM 60.20.40.02 (Revised per item HΛM-5)

Signaling cable routing tubes underneath the road pavement or elsewhere as deemed technically appropriate using galvanized steel tubes, seamed and threaded, per ELOT EN 10255, made of steel S195T, class L (green color code), nominal diameter (DN) and wall thickness as specified below.

The price includes supply and transportation on site of the conduits, galvanized wire for cable pulling, special galvanized items of equipment, installation and connection of the conduits, installation of the wire for cable pulling, conduits labeling and configuring bands of conduits, where foreseen.

Excavation and backfilling of the trench as well as embedment of the conduits using concrete are priced on the basis of the pertinent items of the Price List.

Price per axial length of the pipe line.

EURO	In full: Sixteen In numbers: 16.00

AT: 555	**HDPE Conduits for the protection of traffic lights underground cables** **Diameter DN 63 mm** Item NET HΛM 60.20.40.11 (Revised per item HΛM-5)

Supply, transportation on site, installation and connection of conduits for the protection of underground cables, nominal diameter, as stated below, made of high-density polyethylene (HDPE), structured walls, per ELOT EN 50086-1, ELOT EN 50086-2-4 and ELOT EN 61386 "Conduit systems for cable management", load deformation 5% > 400 N/m, fish tape incorporated, delivered in coils or in straight sections.

The price includes supply and transportation on site of the conduits, unwinding and aligning conduits next to the installation trench, cutting them at the required lengths, special connecting items (splices), placing a plastic tape for labeling the line of conduits, fastening the conduits in bands (as foreseen), installation and assembly of the conduits at the cable pulling and connection manholes existing along the route.

Excavation and re-backfilling of the trench as well as embedment of the conduits are priced on the basis of the pertinent items of the Price List.

Price per axial length of pipe line.

EURO In full: Six and forty cents
In numbers: 6.40

ΑΤ: 556	**HDPE Conduits for the protection of traffic lights underground cables Diameter DN DN 90 mm** Item ΝΕΤ ΗΛΜ 60.20.40.12 (Revised per item ΗΛΜ-5)

Supply, transportation on site, installation and connection of conduits for the protection of underground cables, nominal diameter, as stated below, made of high-density polyethylene (HDPE), structured walls, per ELOT EN 50086-1, ELOT EN 50086-2-4 and ELOT EN 61386 "Conduit systems for cable management", load deformation 5% > 400 N/m, fish tape incorporated, delivered in coils or in straight sections.

The price includes supply and transportation on site of the conduits, unwinding and aligning conduits next to the installation trench, cutting them at the required lengths, special connecting items (splices), placing a plastic tape for labeling the line of conduits, fastening the conduits in bands (as foreseen), installation and assembly of the conduits at the cable pulling and connection manholes existing along the route.

Excavation and re-backfilling of the trench as well as embedment of the conduits are priced on the basis of the pertinent items of the Price List.

Price per axial length of pipe line.

EURO In full: Seven and fifty cents
In numbers: 7.50

ΑΤ: 557	**Supply and installation of copper plate earth electrode** Item ΝΕΤ ΗΛΜ 60.20.40.21 (Revised per item ΗΛΜ-45)

Supply, transportation on site and installation of an earth plate made of electrolytic copper earth plate, 500x500 mm, plate thickness: 3 mm thick. From its center of gravity, one end of a 5 m long 35 mm^2 copper stranded conductor. The other end will feature a 35 mm^2 terminal, welded.

The price of this item does not include excavation and re-backfilling of the trench for the installation of the electrode nor does it include the improvement of the backfill to be eventually required to ensure the conductibility to earth of the electrode due to rocky soil.

Price per piece of earth plate.

EURO In full: One hundred and twenty
In numbers: 120.00

AT: 558	**Traffic lights manhole structure, 0.40 x 0.40 cm** Item ΝΕΤ ΗΛΜ 60.20.40.31 (Revised per article ΟΔΟ-2548)

Structure of a traffic lights manhole, internal dimensions 0.40 x 0.40 m, installed at a depth of at least 50 cm, cast-iron cover of D400 class per ELOT EN 124 for manholes on road pavements or D125 class for manholes on sidewalks, locking mechanism, cover engraved with the letters "ΦΣ" (Traffic Lights).

The unit price will include boring of the trench, installation of the precast manhole or on site construction or concreting, placement of the cover, reinstatement of the surface around the manhole at its initial condition, collection and disposal of debris. The cast-iron cover is priced on the basis of the pertinent Price List item.

Price per manhole (piece).

EURO In full: Sixty
In numbers: 60.00

AT: 559	**Supply and installation of a cross-connection cabinet housing the PPC power consumption meter, type IA** Item ΝΕΤ ΗΛΜ 60.20.40.41 (Revised per item ΗΛΜ-5)

Supply and installation of a metal electrical cabinet intended for cross-connecting the power supply cables feeding the traffic lights and for housing the electrical switchboard of the traffic lighting facility and PPC's consumption meter, with construction characteristics and dimensions as per the Traffic Lighting Specification Φ.Σ. 8/75 of the former Ministry of PEHODE. More precisely:

- Double-wall (inter and outer sleeve), made of black sheet, equipped with an inner metal rack for fixing terminal strips.
- Power cables outer sleeve, fully galvanized (after manufacturing), with IP protection rate IP44
- Door with perimeter waterproof gaskets and stainless steel safety lock
- Foundation base, metal or made of concrete, in line with the Design.

The unit price includes supply, transportation on site, installation and fixing of the metal electrical cabinet, supply and installation of the metal base or construction of the foundation base made of concrete, coating with two layers of epoxy or electrostatic paint and installation inside the box of the fittings required each time (inner cabling, outdoor cables for power supply of the traffic lights, earth bars, terminal strips for signalling cable cross-connection, etc.).

Works related to the cross-connection and connection of the signalling cables ending at the box shall be priced separately.

Price per piece.

EURO In full: Four hundred fifteen
In numbers: 415.00

AT: 560	**Supply, installation and connection of a switchboard feeding the traffic lighting structure within a cabinet, type IA** Item ΝΕΤ ΗΛΜ 60.20.40.51 (Revised per item ΗΛΜ-102)

Supply, installation and connection of a waterproof, metal or plastic, switchboard for feeding the traffic lighting structure, IP44 protection rate, within a cabinet, type IA.

It includes the supply of the switchboard along with the necessary fixing components and its installation in the cross-connection cabinet, including its fixing and electrical connection.

The switchboard will include one miniature circuit breaker 25A, one miniature circuit breaker 16A, one socket with earth contacts, one bipolar switch disconnector 40 A, one fusible plug 25A, porcelain base, and cable entry/exit glands.

Price per piece.

EURO In full: One hundred
In numbers: 100.00

Traffic light signal columns

AT: 561	**Installation or dismantling of simple traffic light signal columns** Item ΝΕΤ ΗΛΜ 60.20.50.01 (Revised per article ΗΛΜ-101)

Installation of a simple traffic light signal column made of steel pipe, nominal diameter 4", 4.20m long (supply non included), or dismantling of the existing column.

The unit price will include:

a) Construction of the base (in case of installation of a new simple column) according to the following method:

- Column embedment (in successive layers) using concrete, namely:

  - Boring of the appropriate trench in any type of soil.
  - Installation of the column inside the trench, including column anchors.
  - Construction of a base made of concrete (in successive layers) for the embedment of the column anchoring cage, at the dimensions foreseen in the detail drawings of the design (the cost of C12/15 concrete is included)

- Alternatively, installation of the column within an empty Ø40 cm cement pipe, embedded

vertically on the soil, at a depth of 1.00 m, and then, sand embedment up to the upper lip of the cement pipe and pipe sealing using a concrete ring, 10 cm thick. The boring of a Ø10 cm hole at the pipe body, intended for the cables routing from the closest manhole to the inner part of the column is also included.

b) Dismantling the base of an already existing column. Before dismantling works, cable disconnection, removal of the anchors from the column, filling the pitch and the holes to be generated further to base demolition and reinstatement of the soil surface around the column at its initial condition.

c) New column: supply and installation at the intended hatch of the necessary terminal strips equipped with 21 terminals, and connection of the necessary new cables with cross-section 21x1.5 mm^2 to the terminal strips or in case of column dismantling, disconnection of the existing cables.

d) Boring of the necessary holes that may be additionally required and threads formation where required using a thread cutting tool, in three phases (3 successive threads) for traffic lights installation according to the design.

e) Transportation on site of new columns or transportation of the dismantled columns at the Service's warehouses and removal of the excavation spoils and debris.

Price per traffic light signal column (piece)

EURO In full: Sixty
In numbers: 60.00

AT: 562	**Installation or dismantling of a traffic light signal column with arm** Item ΝΕΤ ΗΛΜ 60.20.50.02 (Revised per item ΗΛΜ-101)

Installation of a traffic light signal column with arm (supply non included), or dismantling of the existing one.

For new columns, the unit price will include:

a) Construction of the base made of concrete. More precisely:
   - Boring of the appropriate trench for the base in any type of soil
   - Construction of a base made of concrete for the embedment of the column anchoring cage, at the dimensions foreseen in the detail drawings of the design (the cost of C12/15 concrete included)

b) Installation of the column on the anchors of the new base. In case of dismantling of an existing column, the use of a crane is also included. If reinstalling a column at the location where the existing column was dismantled is not foreseen, then cutting the part of the embedment anchors of the abolished column protruding from the sidewalk surface or the street curb is also included.

c) New column: supply and installation at the intended hatch of the necessary terminal strips

equipped with 21 terminals, and connection of the necessary new cables with cross-section 21x1.5 mm^2 to the terminal strips or in case of column dismantling, disconnection of the existing cables.

d) Boring of the necessary holes that may be additionally required and threads formation where required using a thread cutting tool, in three phases (3 successive threads) for traffic lights installation according to the design.

e) Transportation on site of new columns or transportation of the dismantled columns at the Service's warehouses and removal of the excavation spoils and debris.

Price per traffic light signal column (piece).

EURO In full: One hundred and fifty
In numbers: 150.00

AT: 563	**Supply of simple traffic light signal column, galvanized** Item ΝΕΤ ΗΛΜ 60.20.50.11 (Revised per item ΗΛΜ-101)

Supply of galvanized steel simple traffic light signal column; iron pipe DN Ø 4" (Ø 114 mm), at least 4.5 mm thick and 4.20 m long, manufactured per the Traffic Lighting standard ΦΣ 6/75 of the former Ministry of PEHODE and as to the remaining items, as per Standard ELOT EN 40-5, electrostatically painted using powder coating based on polyester resins, TGIC free (without triglycidyl isocyanurate), dry film thickness: 60 μm, at the colour to be defined by the Project Owner.

The unit price will include:

- Manufacturing of a hatch for placing a terminal strip for cables cross-connection
- Opening at the lower part for cable routing
- Stainless steel plug at the top of the column and covers to reinforce the supporting positions of the traffic lights, per the details foreseen in the drawing of Standard 6/75 "Traffic Lights" of the former PEHODE Ministry
- The anchoring features of the column, on condition that its embedment in a concrete base is provided for.

Price per column, ready for installation, along with its features.

EURO In full: Two hundred and fifty
In numbers: 250,00

AT: 564	**Supply of traffic light signal columns, galvanized** Item NET HΛM 60.20.50.12 (Revised per item HΛM-101)

Supply of steel galvanized signaling columns with arm, manufactured according to Standard ΦΣ 7/75 of ex PEHODE and according to Standard ELOT EN 40-5 with respect to all other features, having the following construction features:

- Electrostatic powder paint, polyester resin based, TGIC free (without triglycidyl isocyanurate), dry film thickness 60 μm, at the colour tone to be determined by the Project Owner.
- Conical column body, standard exagonal cross section, Ø 225 mm at the lower part and Ø 130 mm at the top part, 4.0 m long, 5 mm thick, welded on a 500x500 mm footing made of 20 mm-thick plate reinforced with 4 blades, with a Ø 4", 0.40m-long arm fitted on the top part of the column.
- Iron tube arm, nominal diameter Ø 3", wall thickness 4 mm, curved, horizontal projection 4.40 m and vertical projection (along with its bracket) 2.25m.
- Column hatch to place the terminal strip and pads for fixing the traffic lights.
- Column anchoring cage with 4 anchors M24 x 1.00 m and 8 nuts of the same diameter (included in the unit price).

Price per column, ready for installation with its accessories.

EURO In full: Five hundred and twenty
In numbers: 520.00

AT: 565	**Drilling of holes to an installed signaling column** Item NET HΛM 60.20.50.20 (Revised per item HΛM-104)

Drilling of holes to installed signaling column, with or without arm, for the installation of extra traffic lights of any type, i.e. for marking the holes on the column, fitting the traffic lights brackets and cable pass through (maximum five holes per traffic light) using the appropriate tool, for hole drilling using a bit and opening of threads –to all required holes- with the appropriate tool in three phases (3 successive threads).

Price per piece for 5 holes and threading in all required holes.

EURO In full: Fifteen
In numbers: 15.00

ΑΤ: 566	**Construction of traffic light cable routing underneath the road pavement** Item ΝΕΤ ΗΛΜ 60.20.50.30 (Revised per item ΟΙΚ-2269 Β)

Complete construction of traffic lights cable routing underneath the road pavement, without the supply and installation of the cable routing ducts, according to the details drawings of the design.

The unit price includes:

a. The straight and continuous cutting of the asphalt concrete pavement, either reinforced or non reinforced, with the exclusive use of an asphalt cutter;
b. Removal of the cut part and further excavation down to 0.40 m, using any tool in any ground, the collection of the debris and removal for final disposal at any distance;
c. Filling with sand or other appropriate graded material and compaction of the duct bedding and embedment layers;
d. Filling the trench with concrete C 12/15, up to level -0.10 m below the street centerline, and further laying and compaction of hot asphalt concrete for the complete repair of the cut (asphalt pre-coating included).

The price includes in a converted form any difficulties that may arise due to the existing underground PUO networks.

Per linear meter of a fully constructed routing (without the ducts).

EURO In full: Thirty
In numbers: 30.00

ΑΤ: 567	**Construction of traffic light cable routing underneath the sidewalk** Item ΝΕΤ ΗΛΜ 60.20.50.40 (Reviser per item ΟΙΚ-2269 Α)

Complete construction of traffic lights cable routing underneath sidewalks, traffic islands, squares, etc. without the supply and installation of the cable routing ducts, according to the details drawings of the design.

The unit price includes:

a. The straight and continuous cutting either by excavating a ditch at the hard shoulder of the road, or –in case of paved sidewalk- by the exclusive use of asphalt cutter to cut the existing slab paving or floors made of reinforced/non-reinforced concrete;
b. Removal of the cut part and further excavation down to 0.30 m, using any tool in any ground, the collection of the debris and removal for final disposal at any distance;
c. Filling with sand or other appropriate graded material and compaction of the duct bedding and embedment layers;
d. Filling the trench with concrete C 12/15 after duct laying; in the case where slab pavement is to be cut, filling up to level -0.02 m below the final surface, and subsequently casting a 2cm-thick screed of 600 kg white cement and marking of the slab joints to simulate the existing slab paving.

The price includes in a converted form any difficulties that may arise due to the existing underground PUO networks.

Per linear meter of a fully constructed routing (without the ducts).

EURO In full: Fifty
In numbers: 50.00

Traffic signaling accessories

AT: 568	**Supply and installation of a button for pedestrians** Item NET HΛM 60.20.75.01 (Revised per item HΛM 104)

Supply and installation on the column and connection of a button for pedestrians, according to the technical specification ΦΣ-29, including all required works and small materials, as well as the information sign for the use of the button.

Price per piece

EURO In full: One hundred and seventy
In numbers: 170.00

Movable worksite signaling rigs

AT: 569	**Towed signaling rig for worksites of roadworks, dimensions 2.55 x 1.70 m** Item NET HΛM 60.20.90.01 (Revised per item HΛM 108)

Supply, on site transportation and setting into operation of a moving signaling rig for roadworks, dimensions 2.55 x 1.70 m consisting in a towed trailer and a folding superstructure where the signaling system is seated, having the following features:

a. Trailer equipment:

- 30 cm wide zebra plate on the perimeter with reflecting material type II
- K20 sign, D = 0.90 m, with reflecting material type II
- Adjustable height tow hook
- Headlights, turn signal lights and tail lights connected to the vehicle's electrical system
- Mechanical handbrake applied to both wheels and retractable footing to ensure stability of the trailer unit when it is disengaged from the towing vehicle
- Galvanized sheet cabinet placed on the front part of the trailer, containing the control unit and space for the accommodation of a battery 180 Ah / 12V - 24V.

b. Trailer superstructure equipment:

- 30 cm wide zebra plate on the perimeter with reflecting material type II

- P52 sign, D = 0.90 m, with reflecting material type II, mechanically switching to the positions "Go right: ↘" and ''Go left: ↙"
- Two flashing lights per ELOT EN 12352, Φ 340 mm, with halogen (Xenon) bulbs 12-24V / 50W, flashing frequency 50 Hz
- Electronic device for glare reduction during the night hours, connected to a light sensor
- Frame to retain the signs on the vertical position, indicative dimensions 2.55 x 1.70 (HxW)
- The frame of the trailer and the superstructure (girder beam) as well as the other connection/fixing accessories shall be hot deep galvanized, and the signs shall be connected to other accessories using metallic couplers (not welded couplers).

The price includes the purchase of the batteries and the cost for recharging and/or replacement, so as to ensure the uninterrupted operation of the rig throughout the period of execution of the works.

Price per complete moving signaling rig (piece) as above.

EURO In full: Five thousand
In numbers: 5,000.00

AT: 570	**Towed signaling rig for worksites of roadworks, dimensions 3.70 x 2.20 m** Item ΝΕΤ ΗΛΜ 60.20.90.02 (Revised per item ΗΛΜ 108)

Supply, on site transportation and setting into operation of a moving signaling rig for roadworks, dimensions 3.70x2.20 m, consisting in a towed trailer and a folding superstructure where the signaling system is seated, having the following features:

a. Trailer equipment:

- 40 cm wide zebra plate on the perimeter with reflecting material type II
- P52 sign, D = 1.50 m, with reflecting material type II, mechanically adjusted to the positions "Go right: ↘" and ''Go left: ↙"
- Adjustable height tow hook
- Headlights, turn signal lights and tail lights connected to the vehicle's electrical system
- Mechanical handbrake applied to both wheels and retractable footing to ensure stability of the trailer unit when it is disengaged from the towing vehicle
- Galvanized sheet cabinet placed on the front part of the trailer, containing the control unit and space for the accommodation of a battery 180 Ah / 12V - 24V or a 220/24V transformer (in case the rig is connected to the power network).

b. Trailer superstructure equipment:

- 40 cm wide zebra plate on the perimeter with reflecting material type II
- Two flashing lights per ELOT EN 12352, Φ 340 mm, with halogen (Xenon) bulbs 12-24V / 50W, flashing frequency 50 Hz
- Fixed interval flashing lights per ELOT EN 12352: 17 pieces Φ250 or 23 pieces Φ 230, with 12V/20W bulbs, placed so as to form two arrows for traffic direction

- Electronic device for glare reduction during the night hours, connected to a light sensor
- Frame to retain the signs on the vertical position, indicative dimensions 3.70 x 2.20 (HxW)

The frame of the trailer and the superstructure (girder beam) as well as the other connection/fixing accessories shall be hot deep galvanized, and the signs shall be connected to other accessories using metallic couplers (not welded couplers).

The price includes the purchase of the batteries and the cost for recharging and/or replacement, so as to ensure the uninterrupted operation of the rig throughout the period of execution of the works.

Price per complete moving signaling rig (piece) as above.

EURO In full: Eight thousand
In numbers: 8,000.00

AT: 571	**Movable traffic signaling unit** Item ΝΕΤ ΗΛΜ 60.20.90.10 (Revised per item ΗΛΜ 108)

Supply, on site transportation and setting into operation of a movable traffic signaling unit, suitable to regulate traffic in one direction, without any wired connections, consisting of:

- Two light signals with 4 lights Φ 210 mm incorporating a control unit
- Two trailers with battery boxes and two stanchions
- Two batteries 180 Ah/12V

The system shall have the following features:

- Option to selectively increase the duration of the GREEN light to one direction
- Independent operation of the signals via a built-in software, without wireless links
- The option for automatic switching to a flashing ORANGE light in case of failure of the RED bulb
- EPROM memory loaded with at least 30 traffic regulation software programs for road sections with a length from 50 to 600 m.
- The option to save/edit/delete software programs as well as for function synchronization by the user via a user friendly interface
- Fully digital electronic unit with minimum power consumption and high safety standards against all interventions
- Automatic light dimming during the night hours.

The price includes the purchase of the batteries and the cost for recharging and/or replacement, so as to ensure the uninterrupted operation of the unit throughout the period of execution of the works.

Price per complete moving signaling unit (piece) as above.

EURO In full: Three thousand five hundred
In numbers: 3,500.00

MAINTENANCE OF LIGHTING INSTALLATIONS

Removal of steel lighting poles

Work related to the removal of installed steel lighting poles, with or without arms and lighting fixtures, which includes the following activities:

- Delivery and removal of the required equipment and means for the execution of works;
- Removal of any type of covering on top or around the pole base (slab paving, concrete, screeding etc.);
- Disconnection of the cables and the earthing conductor from the terminal box;
- Removal of the pole from its base along with its equipment, laying it down and removing the arms, the lighting fixtures, the cables and the earthing conductor;
- Re-connection of the cables and the earthing conductor in the manhole at the pole's base and their careful insulation;
- Loading, transporting and dumping the debris in a designated area;
- Surface reinstatement around the base of the pole;
- Loading/unloading and transportation of lighting poles and fixtures at the Service's warehouse or the foreseen location of re-installation.

Price per piece

AT: 572	**Removal and transportation of a pole, up to 14.00m high** Item NET HΛM 62.10.01.01 (Revised per item HΛM 101)

EURO In full: Seventy
In numbers: 70.00

AT: 573	**Removal and transportation of a pole, from 14.01 m up to 20.00 m high** Item NET HΛM 62.10.01.02 (Revised per item HΛM 101)

EURO In full: Ninety
In numbers: 90.00

De-installation and removal of concrete lighting poles

Work for the de-installation of installed lighting poles made of reinforced or prestressed concrete, with or without arms and lighting fixtures, which includes the following:

- Delivery and removal of the required equipment and means for the execution of works;
- Disconnection of the cables and the earthing conductor from the terminal box;
- Cutting the pole close to its base, laying it down and removal of the arms, the lighting fixtures, the cables and the earthing conductor;
- Removal of the remaining part of the pole down to level -5cm from the sidewalk surface and filling of the hole with screed flush with the sidewalk pavement;
- Re-connection of the cables and the earthing conductor in the manhole at the pole's base and their careful insulation;
- Loading/unloading and transportation of lighting poles and fixtures at the Service's warehouse or the foreseen location of re-installation.

Price per piece

AT: 574	**Removal and transportation of a pole up to 12.00 m high** Item ΝΕΤ ΗΛΜ 62.10.02.01 (Revised per item ΗΛΜ 100)

EURO	In full: Seventy-five In numbers: 75.00

AT: 575	**Removal and transportation of a pole from 14 m to 20 m high** Item ΝΕΤ ΗΛΜ 62.10.02.02 (Revised per item ΗΛΜ 100)

EURO	In full: Ninety-five In numbers: 95.00

Removal of lighting fixtures

Work for the disconnection and removal of lighting fixtures of any type, which includes:

- The disconnection of the cables from the fixture, their careful insulation or re-connection, so as not to hinder the operation of the preceding or following lighting fixtures;
- The removal of the complete lighting fixture (bulb, starter, ballast, lens etc.);
- The transportation and delivery in the Service's warehouse or the foreseen location of re-installation.

The unit price includes the cost for the personnel, the equipment and the means required for the execution of the work.

Price per piece

AT: 576	**Removal of a lighting fixture from the arm or the top of an installed pole** Item ΝΕΤ ΗΛΜ 62.10.03.01 (Revised per item ΗΛΜ 5)

EURO In full: Twenty-seven and fifty cents
In numbers: 27.50

Removal of arms

Work for the disconnection and removal of lighting fixtures arms of any type and dimensions from the lighting pole, which includes:

- The disconnection of the cables from the fixture, their careful insulation or re-connection, so as not to hinder the operation of the preceding or following lighting fixtures;
- The removal of the arm from the pole and, if foreseen, the disassembly of the lighting fixture equipment (bulb, starter, ballast, lens etc.);
- The transportation and delivery of the materials in the Service's warehouse or the foreseen location of re-installation;

Price per piece as above:

AT: 577	**Removal of the arm from an installed pole with or without lighting fixtures** Item ΝΕΤ ΗΛΜ 62.10.04.01 (Revised per item ΗΛΜ 5)

EURO In full: Twenty
In numbers: 20.00

AT: 578	**Removal of the arm from a pole laying on the ground with or without lighting fixtures** Item ΝΕΤ ΗΛΜ 62.10.04.02 (Revised per item ΗΛΜ 5)

EURO In full: Ten
In numbers: 10.00

Cleaning of Na vapor lighting fixtures

Cleaning of the Na vapor lighting fixture of any type, installed on a pole, wall, etc. which includes the following activities:

- Cutting off the power from the terminal box and the distribution pillar;
- Approaching the lighting fixture using a crane, scaffolding or other safe equipment;

- Dry cleaning of the shell (inside-outside), of the bulb cradle and other equipment using a brush;
- Removal of the transparent bulb and reflectors and their careful cleaning with detergents or other chemicals suitable for the materials of which the lighting fixture is made of, (liquids that do not alter the physical and chemical properties of the materials), as well as their drying using a soft cloth either on the pole, or at the Contractor's workshop;
- Re-assembly of the lighting fixtures and their connection to the power grid.

Price per piece

AT: 579	**Cleaning of lighting fixtures installed at a height of up to 8.0m from the work floor** Item ΝΕΤ ΗΛΜ 62.10.10.01 (Revised per item ΗΛΜ 103)

EURO	In full: Twenty In numbers: 20.00

AT: 580	**Cleaning of lighting fixtures installed at a height above 8.0m from the work floor** Item ΝΕΤ ΗΛΜ 62.10.10.02 (Revised per item ΗΛΜ 103)

EURO	In full: Twenty five In numbers: 25.00

<u>Re-painting the lighting steel poles on site the Project</u>

Re-painting the lighting steel poles of any type and dimensions on site the Project.

The unit price includes:

- The engagement of personnel, equipment and resources required for the execution of the works;
- The supply and delivery on site the Project of the required cleaning and painting materials;
- Disconnections from the power source;
- Removal of posters and scraping old paints using a wire brush, grinder, blow torch or blasting;
- Repair of damaged patches to existing galvanized surfaces using cold galvanization;
- Application of two rust primer coats;
- Application of the final painting coat using epoxy based paint, highly durable to UV radiation, and dry film thickness of at least 120 μm;
- Rising the poles in case they are paid down and re-connection to the power source.

Price per pole (piece)

AT: 581	**Re-painting of a pole up to 12 m high, installed** Item NET HΛM 62.10.15.01 (Revised per item ΟΙΚ 7791)

EURO	In full: Ninety five In numbers: 95.00

AT: 582	**Re-painting of a pole from 14 m to 20 m high, installed** Item NET HΛM 62.10.15.02 (Revised per item ΟΙΚ 7791)

EURO	In full: One hundred and twenty In numbers: 120.00

AT: 583	**Re-painting of a pole up to 12 m high, laying on the ground and returning it to the upright position** Item NET HΛM 62.10.15.11 (Revised per item ΟΙΚ 7791)

EURO	In full: One hundred and fifteen In numbers: 115.00

AT: 584	**Re-painting of a pole from 14m up to 20m high, laying on the ground and returning it to the upright position** Item NET HΛM 62.10.15.12 (Revised per item ΟΙΚ 7791)

EURO	In full: One hundred and forty In numbers: 140.00

<u>Replacement of high pressure Na vapour bulbs</u>

Supply, delivery on site and installation of high pressure Na vapour bulbs.

The unit price includes:

- Supply of the bulb
- Engagement of a bucket lifting machine
- Testing to ascertain the proper operation of the lighting fixture.

Price per bulb (piece)

AT: 585	**Wattage 70W** Item NET HΛM 62.10.26.01 (Revised per item HΛM 103)

EURO In full: Nineteen and fifty cents
In numbers: 19.50

AT: 586	**Wattage 150W** Item NET HΛM 62.10.26.02 (Revised per item HΛM 103)

EURO In full: Twenty-six and fifty cents
In numbers: 26.50

AT: 587	**Wattage 250W** Item NET HΛM 62.10.26.03 (Revised per item HΛM 103)

EURO In full: Thirty and fifty cents
In numbers: 30.50

AT: 588	**Wattage 400W** Item NET HΛM 62.10.26.04 (Revised per item HΛM 103)

EURO In full: Thirty-six and fifty cents
In numbers: 36.50

Asymmetrical beam street floodlights for high pressure Na vapour bulbs

Supply, delivery on site and installation or replacement of asymmetrical beam street floodlights, minimum protection IP55, suitable for high pressure Na vapour bulbs, without the bulb and with all its fixing accessories.

Price per piece

AT: 589	**Wattage 250W / 400 W** Item NET HΛM 62.10.30.01 (Revised per item HΛM 103)

EURO In full: Three hundred and fifty cents
In numbers: 350.00

Replacement of instruments on lighting pillar

Supply, delivery on site and replacement of instruments and accessories for pole terminal boxes and lighting pillars. The price includes operational control of the existing terminal boxes and pillars using instruments, the removal of the failed parts and their replacement with new parts, to restore normal operation.

Price per individual replaced part, as follows:

AT: 590	**Replacement of fuse links at a lighting pillar** Item NET HΛM 62.10.35.01 (Revised per item HΛM 54)

Price per piece

EURO In full: Four
In numbers: 4.00

AT: 591	**Fuse replacement in a terminal box on a lighting pillar** Item NET HΛM 62.10.35.02 (Revised per item HΛM 101)

Price per piece

EURO In full: Five
In numbers: 5.00

AT: 592	**Replacement of rail-mounted load breakers** Item NET HΛM 62.10.35.03 (Revised per item HΛM 55)

Price per piece

EURO In full: Twenty-five
In numbers: 25.00

AT: 593	**Replacement of rail-mounted automatic fuses** Item NET HΛM 62.10.35.04 (Revised per item HΛM 55)

Price per piece

EURO In full: Twenty
In numbers: 20.00

AT: 594	**Replacement of rail type indication bulb** Item NET HΛM 62.10.35.05 (Revised per item HΛM 55)

Price per piece

EURO In full: Four
In numbers: 4.00

AT: 595	**Replacement of cable gland** Item NET HΛM 62.10.35.06 (Revised per item HΛM 104)

Price per piece

EURO In full: Two and forty cents
In numbers: 2.40

AT: 596	**Replacement of rail on electrical switchboard** Item NET HΛM 62.10.35.07 (Revised per item HΛM 52)

Price per linear meter of fully replaced rail

EURO In full: Ten
In numbers: 10.00

AT: 597	**Replacement of load relays** item NET HΛM 62.10.35.08 (Revised per item HΛM 55)

Price per piece

EURO In full: Fifty
In numbers: 50.00

AT: 598	**Replacement of light sensor** Item NET HΛM 62.10.35.09 (Revised per item HΛM 55)

Price per piece

EURO In full: Forty
In numbers: 40.00

AT: 599	**Re-painting of lighting pillars** Item ΝΕΤ ΗΛΜ 62.10.36 (Revised per item ΟΙΚ 7791)

Re-painting the outdoor lighting pillar of any dimensions and type.

The unit price includes:

- Surface preparation for painting, i.e. the removal of posters, the scraping-removal of old paints and cleaning of the surfaces with the appropriate means to the grade SA 2½ per ISO 8501-1 and putty filling, as required;
- Repairs of bending – deformation due to blows etc. of the pillar main body and hatch (repair of bending, repair of hinges and locking mechanism etc.);
- Application of two coats of rust primer and two coats of epoxy based paint, dry film thickness 120 μm.

Price per pillar (piece)

EURO In full: One hundred and ten
In numbers: 110.00

AT: 600	**Repair of the pillar's main body and hatch and/or hatch replacement** Item ΝΕΤ ΗΛΜ 62.10.37 (Revised per item ΗΛΜ 52)

Repair of the main body and hatch of outdoor lighting pillar of any dimensions and type.

The unit price includes:

- Removal of posters and cleaning of all surfaces;
- Repairs of bending – deformation due to blows etc. of the pillar main body;
- Repair of hatch (repair of bending, hinges, locking mechanism etc.) or replacement of the hatch with a new one;
- Supply, transportation, removal of the old hatch and installation of a new.

Price per pillar (piece)

EURO In full: Sixty
In numbers: 60.00

Type H05VV-U, -R (NYM) cables, nominal voltage 300/500V with PVC insulating sheath

Supply, delivery on site and installation (in a duct, tray, channel etc.) of cables with nominal voltage 300 / 500 V type H05VV-U, (single core cable) H05VV-R (multi-core cable), with copper cores and PVC sheath and insulation, including the materials for the cables support, connection and marking (special supports, terminals, couplers, tint soldering, marking tapes etc.) as well as measurements and inspections.

Price per linear meter (m) of cable

AT: 601	**cross section 3 x 1,5 mm²** Item ΝΕΤ ΗΛΜ 62.10.40.01 (Revised per item ΗΛΜ 46)

EURO	In full: Two and thirty cents In numbers: 2.30

AT: 602	**cross section 3 x 2,5 mm²** Item ΝΕΤ ΗΛΜ 62.10.40.02 (Revised per item ΗΛΜ 46)

EURO	In full: Four and ten cents In numbers: 4.10

AT: 603	**cross section 4 x 1,5 mm²** Item ΝΕΤ ΗΛΜ 62.10.40.03 (Revised per item ΗΛΜ 46)

EURO	In full: Two and eighty cents In numbers: 2.80

Type E1VV-U, -R, -S (NYY) cables, nominal voltage 600/1000 V, with PVC insulating sheath

Supply, delivery on site and installation (in a duct, tray, channel, trough, carrier, insulators, or in the ground etc.) of cables with copper cores and PVC insulation with nominal voltage 600 / 1000 V type E1VV-U, (single core cable) E1VV-R (multi-core cable) E1VV-S (multi-core duct of circular cross section),, including the materials for the cables support, connection and marking (special supports, terminals, couplers, tint soldering, marking tapes, etc.) as well as measurements and inspections.

Price per linear meter (m) of cable.

AT: 604	**cross section 3 x 1,5 mm²** Item ΝΕΤ ΗΛΜ 62.10.41.01 (Revised per item ΗΛΜ 102)

EURO In full: Two and ninety cents
In numbers: 2.90

AT: 605	**cross section 3 x 2,5 mm²** Item ΝΕΤ ΗΛΜ 62.10.41.02 (Revised per item ΗΛΜ 102)

EURO In full: Four and sixty cents
In numbers: 4.60

AT: 606	**cross section 4 x 1,5 mm²** Item ΝΕΤ ΗΛΜ 62.10.41.03 (Revised per item ΗΛΜ 102)

EURO In full: Three and fifty cents
In numbers: 3.50

AT: 607	**cross section 4 x 10 mm²** Item ΝΕΤ ΗΛΜ 62.10.41.04 (Revised per item ΗΛΜ 102)

EURO In full: Twelve and fifty cents
In numbers: 12.50

Bare multi-core copper conductors

Supply, delivery on site and installation of a bare multi-core copper conductor, including the materials for the cables support, connection and marking (special supports, terminals, couplers, tint soldering, marking tapes, etc.) as well as measurements and inspections.

Price per linear meter (m) of bare copper conductor

AT: 608	**cross section 6 mm²** Item ΝΕΤ ΗΛΜ 62.10.48.01 (Revised per item ΗΛΜ 45)

EURO In full: Three and ten cents
In numbers: 3.10

AT: 609	**cross section 10 mm²** Item ΝΕΤ ΗΛΜ 62.10.48.02 (Revised per item ΗΛΜ 45)

EURO In full: Three and forty cents
In numbers: 3.40

AT: 610	**cross section 25 mm²** Item ΝΕΤ ΗΛΜ 62.10.48.03 (Revised per item ΗΛΜ 45)

EURO In full: Five and seventy cents
In numbers: 5.70

TRAFFIC SIGNALLING MAINTENANCE

AT: 611	**Replacement of outer case of cross connection type ΙΑ cabinet** Item ΝΕΤ ΗΛΜ 62.20.10 (Revised per item ΗΛΜ 5)

Replacement of outer case of cross connection type ΙΑ cabinet of any use that was damaged due to impact or other cause. Supply, delivery on site of the new casing, removal of the existing and installation of a new casing, as well as the required disconnections and re-connections of the cabinet equipment. The price also includes the collection and disposal of the removed old casing.

Price per piece

EURO In full: Three hundred
In numbers: 300.00

AT: 612	**Repair of a bended simple lighting pole** Item ΝΕΤ ΗΛΜ 62.20.20 (Revised per item ΟΙΚ 2122)

The unit price includes:

- The dismantling of the sidewalk and the base of the pole using compressed air percussion gun or other percussion tools;
- Bringing the pole to plumb using portable calibration tool;
- Bringing the pole to plumb in the trench and its embedment in C12/15 concrete;
- Reinstatement of the surface around the pole (reinstatement of the slab paving, concrete flooring etc.);
- The engagement of personnel equipment and resources, as well as the incorporation of the materials required for the execution of the works.

Price per piece

EURO In full: Fifty
In numbers: 50.00

AT: 613	**Supply and installation of type E ή J1VV-R or U 21x1,5 mm2 cable connector** Item NET ΗΛΜ 62.20.30 (Revised per item ΗΛΜ 102)

Supply and installation of type E or J1VV-R or U (NYY) 21x1.5 cable connector made of heat-shrinkable material to connect underground signalling cables.

The unit price includes:

- Engagement of personnel and resources required for the execution of the works;
- Supply and delivery on site of the elastic sheath and the required minor materials for connection (connectors for telephone cables, special copper conduits for HV cables, tapes etc.);
- Deployment and connection of cables with the connectors or the conduits;
- Blowtorching;
- Testing for good operation.

Price per piece

EURO In full: Ninety
In numbers: 90.00

AT: 614	**Supply and installation of remote control cable connector** Item NET ΗΛΜ 62.20.40 (Revised per item ΗΛΜ 102)

Supply and installation of cable heat shrinkable connector to connect underground remote control cables.

The unit price includes:

- Engagement of personnel and resources required for the execution of the works;
- Supply and delivery on site of the elastic sheath and the required minor materials for connection (connectors for telephone cables, special copper conduits for HV cables, tapes etc.);
- Deployment and connection of cables with the connectors or the conduits;
- Blowtorching;
- Testing for good operation.

Price per piece

EURO In full: Seventy
In numbers: 70.00

AT: 615	**Supply and installation or replacement of the base of the signaling controller** Item ΝΕΤ ΗΛΜ 62.20.50 (Revised per item ΗΛΜ 101)

Installation or replacement of the signaling controller base of all dimensions.

The unit price includes:

- The dismantling of the existing base (in case of replacement) using compressed air tools;
- The excavation of a pit to install the new base;
- The supply and on site delivery of a new pre-painted metallic base with two coats of anti-rust paint and a final epoxy paint coating or grey-colored oven paint coating;
- Installation of the new base at the location of the old one;
- Reinstatement of the surface around the base to its prior condition;
- Collection and disposal of debris at locations approved by the Authorities.

Price per piece

EURO In full: One hundred and sixty five
In numbers: 165.00