Ref. Ares(2023)6071821 - 07/09/2023

VOLUME 4.3

FINANCIAL OFFER TEMPLATES

UNIT PRICE CONTRACTS

Content

4.3.1 — Introduction

4.3.2 — Bill of quantities

4.3.4 — Daily works schedule

VOLUME 4.3.1 — INTRODUCTION

1. General

1.1 The bill of quantities (Volume 4.3.2) is the document containing an itemised breakdown of the works to be carried out in a unit price contract, indicating a quantity for each item and the corresponding unit price. The quantities set out in the bill of quantities are estimated quantities.

The amounts due will be calculated by measuring the actual quantities of the works executed and by applying the unit rates to the quantities actually executed for each item.

1.2 Provisional sums for use when works are to be executed on a daily work basis (Volume 4.3.4) can only be executed by administrative order of the supervisor in accordance with the terms of the contract.

2. Specific to Volumes 4.3.2 and 4.3.4

2.1 The prices inserted in the bill of quantities and price schedule are to be the full inclusive values of the works described under the items, including all costs and expenses that may be required in and for the construction of the works described, together with any temporary works and installations which may be necessary and all general risks, liabilities and obligations specified or implied in the documents on which the tender is based. It will be assumed that establishment charges, profit and allowances for all obligations are spread evenly over all unit rates.

Reference documents for a detailed technical description of items making part of Volume 4.3.2 are as follows:

- Karayolları Genel Müdürlüğü (KGM) 2023 Yılı Birim Fiyatları / General Directorate of Highways (KGM) Unit Prices for 2023;
- İLBANK Genel Müdürlüğü 2023 Yılı Birim Fiyatları / ILBANK General Directorate Unit Prices for 2023;
- Çevre, Şehircilik İklim Değişikliği Bakanlığı 2023 Yılı Birim Fiyatları / Ministry of Environment, Urbanization and Climate Change Unit Prices for 2023;
- Türkiye Elektrik Dağıtım A.Ş. Genel Müdürlüğü (TEDAŞ) 2023 Yılı Birim Fiyatları / Turkey Electricity Distribution Inc. General Directorate (TEDAŞ) Unit Prices for 2023.

2.2 Save where the technical specifications or the bill of quantities and the price schedule specifically and expressly state otherwise, only permanent works are to be measured.

2.3 No allowance will be made for loss of materials or volume thereof during transport or compaction.

2.4 The prices of the bill of quantities, price schedule and daily work schedule are all-inclusive and include any non-exonerated tax or fiscal duty.

2.5 The units of measurement used in the annexed technical documentation are those of the International System of Units (SI). No other units may be used for measurements, pricing, detail drawings etc. (Any units not mentioned in the technical documentation must also be expressed in terms of the SI.) Abbreviations used in the bill of quantities are to be interpreted as follows:

mm	means	millimetre
m	means	metre
mm^2	means	square millimetre
m^2	means	square metre
m^3	means	cubic metre
kg	means	kilogram
to	means	tonne (1000 kg)
pcs	means	pieces
h	means	hour
L.s.	means	Lump sum
km	means	kilometre
l	means	litre
%	means	per cent
N.d	means	nominal diameter
m/m	means	man-month
m/d	means	man-day

VOLUME 4.3.2 — BILL OF QUANTITIES

Price No	Title	Amount (EUR)
A.	**UNIT and LUMP-SUM PRICES**	
a.1	**STRUCTURAL WORKS**	
a.2	**LANDSCAPE WORKS**	
a.3	**SIGNING AND MARKING WORKS**	
a.4	**ELECTRIFICATION AND LIGHTNING WORKS**	
A. TOTAL		
B.	**CONTINGENCIES (5 % of Total (A))**	
TOTAL INCLUDING CONIGENCIES (A+B)		

STRUCTURAL WORKS (a.1)

Price No	Work Item Ref	Title	Estimated quantities	Unit	Unit Price (EUR)	Amount (EUR)
		STRUCTURAL WORKS - STAGE 1				
1	KGM/60.206	Drawing of pedestrian crossings, deceleration warning and strip lines with double component paint (2 mm thick)	1,896.66	m²		
2	Volume 3	Stamped concrete (excluding concrete)	13,759.08	m²		
3	Volume 3	Colored asphalt coating	8,279.15	m²		
4	Volume 3	Wooden bench (with backrest)	62.00	Piece		
5	Volume 3	Rubbish bin	105.00	Piece		
6	Volume 3	Galvanized metal separator (H:15 cm)	928.00	m		
7	Volume 3	Metal drain	117.00	Piece		
8	Volume 3	Detail design of all drainage elements	1.00	Piece		
9	Volume 3	Construction of all drainage elements	1.00	Piece		
10	15.120.1005	Excavation of soft rock by machine without using explosives (free excavation)	4,607.63	m³		
11	15.125.1008	By providing crushed stone up to 32 mm, laying, irrigation and compaction by machine	827.91	m³		
12	15.125.1010	By providing crushed stone up to 63 mm, laying, irrigation and compaction by machine	827.91	m³		
13	151.501.004	Normal ready-made concrete pouring in gray color (including concrete transport) in the C 20/25 compressive strength class, produced or purchased at the concrete plant and pumped with a concrete pump	2,222.36	m³		

14	15.150.1005	Normal ready-made concrete pouring in gray color (including concrete transport) in the C 25/30 compressive strength class, produced or purchased at the concrete plant and pumped with a concrete pump	7.94	m^3		
15	152.101.004	Filling with a quarry stone	2,229.01	m^3		
16	151.801.003	Making flat surface reinforced concrete formwork with plywood	57.75	m^2		
17	151.601.001	Replacement of ribbed steel wire-mesh 1,500-3,000 kg/m^2 (including 3,000 kg/m^2)	34.06	Ton		
18	15.435.1203	Laying normal cemented steam cured concrete curb with dimensions of 50 x 20 x 10 cm (chamfered, all colors)	10,566.32	m		
19	KGM/15.006/B	Excavation and use of all kinds of layer of loose rock (in excavations to be brought from the borrow pit or to the warehouse)	4,302.39	m^3		
20	KGM/15.010/B	Excavation and use of all kinds of layer of soft rock (in excavations to be brought from the borrow pit or to the warehouse)	6,453.58	m^3		
21	KGM/15.014/B	Excavation and use of all kinds of layer of hard rock (in excavations to be brought from the borrow pit or to the warehouse)	3,585.32	m^3		
22	10.420.1782	Reflective button for use on road lines	1,440.00	Piece		

STRUCTURAL WORKS - STAGE 2

23	KGM/60.206	Drawing of pedestrian crossings, deceleration warning and strip lines with double component paint (2 mm thick)	886.78	m²		
24	Volume 3	Stamped concrete (excluding concrete)	3,824.07	m²		
25	Volume 3	Colored asphalt coating	3,860.09	m²		
26	Volume 3	Rubbish bin	56.00	Piece		
27	Volume 3	Galvanized metal separator (H:15 cm)	120	m		
28	Volume 3	Metal drain	15	Piece		
29	Volume 3	Detail design of all drainage elements	1	Piece		
30	Volume 3	Construction of all drainage elements	1	Piece		
31	15.120.1005	Excavation of soft rock by machine without using explosives (free excavation)	406.95	m³		
32	15.125.1008	By providing crushed stone up to 32 mm, laying, irrigation and compaction by machine	386.01	m³		
33	15.125.1010	By providing crushed stone up to 63 mm, laying, irrigation and compaction by machine	386.01	m³		
34	151.501.004	Normal ready-made concrete pouring in gray color (including concrete transport) in the C 20/25 compressive strength class, produced or purchased at the concrete plant and pumped with a concrete pump	623.96	m³		
35	151.501.005	Normal ready-made concrete pouring in gray color (including concrete transport) in the C 25/30 compressive strength class, produced or purchased at the concrete plant and pumped with a concrete pump	4.24	m³		
36	152.101.004	Blocking with a quarry stone	627.51	m³		
37	151.801.003	Making flat surface reinforced concrete formwork with plywood	30.80	m²		

38	151.601.001	Replacement of ribbed steel wire-mesh 1,500-3,000 kg/m^2 (including 3,000 kg/m^2)	9.56	Ton		
39	154.351.203	Laying normal cemented steam cured concrete curb with dimensions of 50 x 20 x 10 cm (chamfered, all colors)	3,356.60	m		
40	KGM/15.006/B	Excavation and use of all kinds of layer of loose rock (in excavations to be brought from the borrow pit or to the warehouse)	2,857.55	m^3		
41	KGM/15.010/B	Excavation and use of all kinds of layer of soft rock (in excavations to be brought from the borrow pit or to the warehouse)	4,286.32	m^3		
42	KGM/15.014/B	Excavation and use of all kinds of layer of hard rock (in excavations to be brought from the borrow pit or to the warehouse)	2,381.29	m^3		
43	KGM/23.176/K	Making and replacing a railing from profiled iron (except painting and transportation) (including material)	53.70	Ton		
44	10.420.1782	Reflective button for use on road lines	672.00	Piece		

Total for Structural Works

LANDSCAPE WORKS (a.2)

Price No	Work Item Ref	Title	Estimated quantities	Unit	Unit Price (EUR)	Amount (EUR)
	LANDSCAPE WORKS - STAGE 1					
1	Volume 3	Photinia serrulata 'Red Robin' Flame Bush	291	Piece		
2	Volume 3	Ligustrum japonica 'Tige' Japanese Pride	117	Piece		
3	Volume 3	Chamaerops excelsa Stranded Palm	232	Piece		
4	Volume 3	Lonicera nitida Dwarf Honeysuckle	5566	Piece		
5	KGM/37.006/K	Manual raking of the soil in the arrangement of grass fields on the cut and fill slopes of the roads and in the median	232	m²		
6	KGM/37.008/K	Grinding hard soil at a depth of 20-25 cm to prepare grass pitches in the middle medians of roads	232	m²		
7	KGM/37.009/K-1	Hoeing of the soil and manual leveling of the surfaces in the cut and fill slopes of the roads and in the median	232	m²		
8	KGM/37.020/K-1	Digging a sapling pit with 40 cm diameter and 50 cm depth manually in hard-gravel soil in the median.	5857	Piece		
9	KGM/37.022	Making a sapling pit manually in hard-gravel soil with a diameter of 60 cm and a depth of 80 cm	349	Piece		
10	KGM/37.040/K-1	Soil planting of coniferous and leafy seedlings in pits 40 cm in diameter and 50 cm in depth	5857	Piece		
11	KGM/37.040/K-2	Soilless planting of small coniferous seedlings in 60 cm diameter, 80 cm deep pits	349	Piece		
12	KGM/37.556/K-1	Formation of grass fields on the cut and fill slopes of the roads and in the median	0.232	Decare		
13	ÖBİF	Planting Soil - 10 cm Thickness	23.2	m³		

LANDSCAPE WORKS - STAGE 2

14	Volume 3	Ligustrum japonica 'Tige' Japanese Pride	15	Piece		
15	Volume 3	Chamaerops excelsa Stranded Palm	30	Piece		
16	KGM/37.006/K	Manual raking of the soil in the arrangement of grass fields on the cut and fill slopes of the roads and in the median	30	m²		
17	KGM/37.008/K	Grinding hard soil at a depth of 20-25 cm to prepare grass pitches in the middle medians of roads	30	m²		
18	KGM/37.009/K-1	Hoeing of the soil and manual leveling of the surfaces in the cut and fill slopes of the roads and in the median	30	m²		
19	KGM/37.022	Making a sapling pit manually in hard-gravel soil with a diameter of 60 cm and a depth of 80 cm	45	Piece		
20	KGM/37.040/K-2	Soilless planting of small coniferous seedlings in 60 cm diameter, 80 cm deep pits	45	Piece		
21	KGM/37.556/K-1	Formation of grass fields on the cut and fill slopes of the roads and in the median	0.03	Decare		
22	ÖBİF	Planting Soil - 10 cm Thickness	3	m³		

Total for Landscape Works

SIGNING AND MARKING WORKS (a.3)

Price No	Work Item Ref	Title	Estimated quantities	Unit	Unit Price (EUR)	Amount (EUR)
SIGNING AND MARKING WORKS - STAGE 1						
1	Traffic Signs - Volume 3 KGM/60.042 KGM/60.052 KGM/60.057 KGM/60.047 KGM/60.054 KGM/60.022	Equilateral triangle plate with 90 cm sides from 2 mm thick galvanized sheet	16	Piece		
2	Traffic Signs – Volume 3 KGM/60.025 KGM/60.042 KGM/60.052 KGM/60.057 KGM/60.047 KGM/60.054	60 cm diameter round plate from 2 mm thick galvanized sheet	23	Piece		
2	Traffic Signs – Volume 3 KGM/60.031 KGM/60.042 KGM/60.052 KGM/60.057 KGM/60.047 KGM/60.054	Quadrangular sheet in 1 m2 area from 2 mm thick galvanized sheet	10	Piece		
SIGNING AND MARKING WORKS - STAGE 2						
3	Traffic Signs – Volume 3	60 cm diameter round plate from 2 mm thick galvanized sheet	4	Piece		

	KGM/60.025 KGM/60.042 KGM/60.052 KGM/60.057 KGM/60.047 KGM/60.054					
2	Traffic Signs – Volume 3 KGM/60.031 KGM/60.042 KGM/60.052 KGM/60.057 KGM/60.047 KGM/60.054	Quadrangular sheet in 1 m2 area from 2 mm thick galvanized sheet	6	Piece		

Total for Signing and Marking Works

ELECTRIFICATION AND LIGHTNING WORKS (a.4)

Price No	Work Item Ref	Title	Estimated quantities	Unit	Unit Price (EUR)	Amount (EUR)
	ELECTRIFICATION AND LIGHTNING WORKS - STAGE 1					
1	Volume 3	8 m double console (8-8) 100-100W Led luminaire Lighting Pole	105	Piece		
2	8.2.1/001	Non-Metallic Cable Protection Pipe System (For cables laid underground) TYPE 250 (Compression resistance 2500 Newton) Diameter: 50mm	3815	m		
3	24.4.2.4	Lighting panel (Lighting Board)	4	Piece		
4	24.7.2.30/002	Switched automatic fuse (10 A 220 V Switched Automatic Fuse)	105	Piece		
5	26.2.004	Danger board (Aluminum) Danger board and danger sign earthing (Earthing counductor)	4	Piece		
6	30.2.3	35 mm2 (319.26 Kg/Km) Copper conductor and embedding	3920	m		
7	30.4.2	Earthing electrode (Earthing pile) (2 meters long, galvanized 65 X 65 X 7)	35	Piece		
8	32.12-374	NYM Cables (5 x 1.5 mm2 NYM Cable) Aluminum cables NAYY Cables to be laid underground	788	m		
9	32.5/041	4×16 mm², 0.6/1 kV ALUMINUM D CABLE YAVV(NAYY) (Installing underground)	3920	m		
10	32.5/042	4×25 mm², 0.6/1 kV Aluminum D Cable YAVV(NAYY) (Installing underground)	401	m		

ELECTRIFICATION AND LIGHTNING WORKS - STAGE 2

11	Volume 3	8 m double console (8-8) 100-100W Led luminaire Lighting Pole	48	Piece		
12	8.2.1/001	Non-Metallic Cable Protection Pipe System (For cables laid underground) TYPE 250 (Compression resistance 2500 Newton) Diameter :50mm	1651	m		
13	24.4.2.4	Lighting panel (Lighting Board)	3	Piece		
14	24.7.2.30/001	Switched automatic fuse (10 A 220 V Switched Automatic Fuse)	48	Piece		
15	26.2.004	Danger board (Aluminum) Danger board and danger sign earthing (Earthing conductor)	3	Piece		
16	30.2.3	35 mm2 (319.26 Kg/Km) Copper conductor and burial	1699	m		
17	30.4.2	Earthing electrode (Earthing pile) (2 meters long, galvanized 65 X 65 X 7)	19	Piece		
18	32.12-374	NYM Cables (5 x 1.5 mm2 NYM Cable) Aluminum cables NAYY Cables to be laid underground	360	m		
19	32.5/041	4×16 mm², 0.6/1 kV ALUMINUM D CABLE YAVV(NAYY) (Installing underground)	1699	m		
20	32.5/042	4×25 mm², 0.6/1 kV Aluminum D Cable YAVV(NAYY) (Installing underground)	150	m		

Total for Electrification and Lightning Works

VOLUME 4.3.4 – DAYWORKS SCHEDULE

Item	Description	Unit	Unit Price	Estimated Quantities (hours)	Provisional sums (EUR)
Labour					
1	Labourer	Hours		500	
2	Skilled worker	Hours		500	
3	Foreman	Hours		250	
4	Site manager	Hours		250	
5	Clerc	Hours		100	
6	Land surveyor	Hours		100	
7	Truck driver	Hours		100	
Equipment (working hour on site)					
8	Excavator	Hours		100	
9	Road roller	Hours		150	
10	Grader	Hours		150	
11	Bull Dozer	Hours		100	
Total Dayworks					