

OBJEKTI: NDËRTIM RRUGA KASHAR-NYJA VAQARR, FAZA III

BILL OF QUANTITIES/PREVENTIV

SITE CLEARANCE						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
A. NDËRTIM RRUGA KASHAR-NYJA VAQARR, (KM8+200-KM 9+166)						
		CLEARING AND GRUBBING			SubTotal 1	
1		Removal of trees and stumps	pcs.	116.00		
		DEMOLITION OF EXISTING BUILDINGS			SubTotal 2	
2		Demolition of private buildings (single story including basement)	m2	1,214.17		
3		Demolition of private buildings (multi story including basement)	m2	221.71		
4		Demolition of greenhouses	m2	2,815.12		
		DEMOLITION OF EXISTING PAVEMENT			SubTotal 3	
5		Demolition of existing asphalt pavement	m2	580.00		
		DEMOLITION OF EXISTING CONCRETE STRUCTURES			SubTotal 4	
6		Demolition of existing bridges and culverts	m3	47.06		
7		Demolition of other existing concrete structures (booths, sidewalks, surrounding walls etc.)	m3	15.00		
		RELOCATION OF UTILITIES & SERVICES			SubTotal 5	
8		Relocation of utilities & services (including water supply, underground installations, etc.)	km	0.98		
SUM OF BILL No.1 - SITE CLEARANCE (Price Excluding VAT)					SubTotal 1+2+3+4+5	

SAFETY BARRIERS						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		METALLIC BARRIER (GUARDRAIL)			SubTotal 1	
1		Side guardrails type N2/W5 (with 2 waves in one side + accessories)	m	550.00		
2		Side guardrail type H2/W4 (with 3 waves in one side + accessories)	m	140.00		
3		Side guardrail type H2/W5 (with 3 waves in one side + accessories)	m	75.00		
4		Side guardrail type H3/W3 (with 3 waves in one side + accessories)	m	90.00		
5		Side guardrail type H3/W4 (with 3 waves in one side + accessories)	m	250.00		
6		Side guardrail type H3/W5 (with 3 waves in one side + accessories)	m	150.00		
7		Side guardrail type H4/W3 (with 3 waves in one side + accessories)	m	140.00		

8		Side guardrail type H4b/W1 (with 3 waves in one side + wiremesh + accessories)	m	50.00		
		CONCRETE BARRIER (NEW JERSEY)			SubTotal 2	
9		New Jersey Barrier H4/W4 (at median, h=0.81m) - motorway	m	2,000.00		
		CRUSH CUSHION			SubTotal3	
10		Crush Cushion Class 100	pcs.	1		
		FENCING			SubTotal 4	
11		Fencing (wire mesh + gates + accessories)	m	1,330.00		
SUM OF BILL No.2 - SAFETY BARRIERS (Price Excluding VAT)					SubTotal 1+2+3+4	

DRAINAGE						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		ROADSIDE CHANNELS			Subtotal 1	
		Reinforced Concrete Lining				
1		Reinforced Concrete C20/25 lined channel trapezoidal base width 0.5m / height 0.5m / side slope 0.75:1	m	305.00		
2		Reinforced Concrete C20/25 lined channel trapezoidal 0.5/0.5/1:1	m	100.00		
3		Reinforced Concrete C20/25 lined channel trapezoidal 1.0/1.0/1:1	m	40.00		
4		Reinforced Concrete C20/25 lined channel rectangular base 0.8m / height 1.0m	m	355.00		
		Earthworks				
5		Excavation in soft or common soils + trans auto	m3	1,774.40		
6		Filling with excavated material and compacted	m3	84.80		
		PAVEMENT DRAINAGE			Subtotal 2	
		Motorway Concrete Gutters				
7		RC Gutter Type-1 (b=0.95m; A=0.18m ² /m; Steel=15kg/m), Concrete C20/25, XC1	m	1,067.00		
8		Gutter Type-2 (b=1.55m; A=0.55m ² /m), Concrete C20/25, XC1	m	427.91		
		STORM DRAIN			Subtotal 3	
		Storm Pipes				
9		DN300mm, HDPE corrugated SN8	m	310.00		
10		DN375mm, HDPE corrugated SN8	m	235.00		
11		DN450mm, HDPE corrugated SN8	m	50.00		
12		DN600mm, HDPE corrugated SN8	m	145.00		
13		DN750mm, HDPE corrugated SN8	m	330.00		
14		DN900mm, HDPE corrugated SN8	m	310.00		
15		DN1050mm, HDPE corrugated SN8	m	13.00		
		Inlets				
16		Dimensions 60x60cm, Height 1.5m	pcs.	10.00		
17		Dimensions 60x60cm, Height 1.6m	pcs.	8.00		
18		Dimensions 60x60cm, Height 1.7m	pcs.	2.00		
19		Dimensions 60x80cm, Height 1.85m	pcs.	4.00		
20		Dimensions 60x100cm, Height 2.0m	pcs.	8.00		
21		Dimensions 60x120cm, Height 2.15m	pcs.	8.00		
		Access Holes				
22		Dimensions 60x60cm, Height 1.6m	pcs.	2.00		
23		Dimensions 60x60cm, Height 1.7m	pcs.	1.00		
24		Dimensions 80x80cm, Height 1.85m	pcs.	1.00		
25		Dimensions 100x100cm, Height 2.0m	pcs.	1.00		

26		Dimensions 120x120cm, Height 2.30m	pcs.	1.00		
		Trench Drains				
27		20x40 (Width 20cm, Height 40cm)	m	80.00		
28		30x50 (Width 30cm, Height 50cm)	m	100.00		
29		30x60 (Width 30cm, Height 60cm)	m	140.00		
30		40x80 (Width 40cm, Height 80cm)	m	830.00		
		DETENTION BASINS (1)			Subtotal 4	
		Earthworks				
31		Excavation in soft or common soils + trans auto	m3	1813.96		
32		Embankment from cutting material, compacted up to 95% of modified AASHTO	m3	725.584		
33		Embankment for access ramp	m3	7.2		
34		Sedimentation basin embankment	m3	25		
35		Embankments slopes vegetation	m2	1300		
36		Unpaved access road, width 5m	m	100		
		Appurtenances				
37		Riser outlet structure, reinforced concrete C20/25	m3	2.128		
38		Trash galvanized grate on riser	ton	0.27		
39		Emergency spillway, reinforced concrete C20/25	m3	6.00		
40		Access Hole 1.0x1.0m, height variable, reinforced concrete C20/25	m3	5.30		
41		Access Hole 1.2x1.2m, height variable, reinforced concrete C20/25	m3	11.20		
42		Anti seep collar, for pipe DN900mm and DN1050mm	pcs.	2.00		
		Inlet and Outlet Piping				
43		DN1050mm, HDPE corrugated SN8	m	56.00		
		Scour Protection				
44		Gabion mattress t=20cm, inside basin	m2	18.54		
45		Gabion mattress t=20cm, outside basin	m2	8.34		
		CULVERTS			Subtotal 5	
		Barrel				
46		Excavated material for culvert in soft or common soils + trans auto	m3	673.00		
47		Backfilling with sand-gravel compacted to 98% Mod. Proctor	m3	2,011.00		
48		Concrete C30/37 for barrel	m3	469.00		
49		Steel reinforcement $\phi \geq 10$ mm for barrel	ton	30.14		
50		Blinding concrete C12/15 (t=15cm)	m2	256.00		
51		Waterstop at CJ	m	177.00		
52		Geotextile	m2	521.10		
53		Bituminous coating of surfaces in contact with soils, for box structures	m2	348.00		
54		Waterproofing for top slab	m2	418.00		
55		Concrete C20/25 for the protection of waterproofing (min. 7cm) with galvanized welded mesh	m3	17.00		
56		Perforated corrugated HDPE drain pipes $\phi 200$ mm	m	166.00		
57		Lean Concrete C12/15 under drainage pipe	m3	101.00		
58		Granular material around drainage pipe	m3	31.00		
59		Geotextile around drainage pipe	m2	309.00		
		Apex				
60		Concrete C30/37 for apex	m3	4.41		
61		Steel reinforcement $\phi \geq 10$ mm for apex	ton	0.14		
		Joint				
62		Non absorbent joint filler	m3	0.22		
63		Sealing compound	L	18.00		
64		Waterstop at joints	m	32.00		
		Approach Slab				
65		Steel reinforcement $\phi \geq 10$ mm for slab	ton	4.92		

66		Concrete C30/37 for slab	m3	63.00		
67		Blinding concrete C12/15 (t=15cm)	m2	254.00		
68		Double asphalt coating for slab	m2	268.00		
		Wingwalls				
69		Backfilling gravel or crushed stone	m3	212.00		
70		Concrete C30/37 for wingwalls	m3	52.50		
71		Steel reinforcement $\phi \geq 10$ mm for wingwalls	ton	3.94		
72		Blinding concrete C12/15 for wingwalls (t=15cm)	m2	36.80		
73		Compacted gravel base	m3	13.20		
74		Non absorbent joint filler	m3	0.22		
75		Sealing compound	L	18.00		
76		Bituminous coating of surfaces in contact with soils, for wingwalls and inlet-outlet bottom slab	m2	164.00		
77		Perforated corrugated HDPE drain pipes $\phi 200$ mm	m	26.00		
78		Lean Concrete C12/15 under drainage pipes	m3	16.00		
79		Granular material around drainage pipes	m3	6.00		
80		Geotextile around drainage pipe	m2	38.00		
		Wingwall's Slab				
81		Concrete C30/37	m3	22.50		
82		Steel reinforcement $\phi \geq 10$ mm for wingwalls	ton	1.39		
83		Blinding concrete C12/15 for wingwall's slab (t=15cm)	m2	55.20		
84		Compacted gravel base	m3	30.80		
		Scouring Protection				
85		Gabion mattress thickness 30cm	m2	72.00		
SUM OF BILL No.3 - DRAINAGE (Price Excluding VAT)					SubTotal 1+2+3+4+ 5	

EARTHWORKS AND STABILISING MEASURES						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		EXCAVATION			SubTotal 1	
		Motorway				
1		Excavate topsoil	m3	10,095.00		
2		Cut in soft material, free section + trans auto	m3	39,623.70		
3		Cut in medium material, free section + trans auto	m3	65,262.70		
4		Cut in hard material, free section + trans auto	m3	11,654.05		
		FILLING			SubTotal 2	
		Motorway				
5		Embankment from cutting material, compacted up to 95% of modified AASHTO	m3	8,331.60		
6		Embankment with appropriate borrowed material, compacted up to 95% of modified AASHTO	m3	12,497.40		
7		Replacement of weak foundation soil with granular/rock material (50cm or 100cm thick, max. particle size $5\text{mm} \leq D \leq 100\text{mm}$), below the pavement structure in low cut sections (see the progressive cross section of motorway)	m3	15,893.00		
8		Separation geotextile 280 gr/m2 (type Mactex H55.1 or equivalent)	m2	21,548.10		
		STABILISING MEASURES			SubTotal 3	
9		Earth fill for New Jersey	m3	2646.94		

10		Perforated drainage pipe Ø200mm under New Jersey and along cut verges (incl. geotextile, fill material, sand/concrete layers)	m	1378.63		
SUM OF BILL No.4 - EARTHWORKS AND STABILISING MEASURES (Price Excluding VAT)					SubTotal 1+2+3	

PAVEMENTS						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
UNBOUND GRAVEL					SubTotal 1	
Motorway						
1		Crushed stone (5-40mm) compacted base course up to to 98% of modified AASHTO density on roadway, h=(15+15)cm	m2	31,974.96		
2		Crushed stone fine material (0-31.5mm), 98% of modified Proctor AASHTO density, h=(10+15)cm	m2	27,671.58		
3		Crushed stone fine material (0-31.5mm) for motorway verges	m3	1,296.77		
BITUMINOUS BOUND BASE COURSE (incl. prime coat)					SubTotal 2	
Motorway						
4		Thickness : 10 cm	m2	22,641.03		
BITUMINOUS BOUND BINDER COURSE (incl. tack coat)					SubTotal 3	
Motorway						
5		Thickness : 6 cm	m2	22,521.81		
WEARING COURSE BITUMINOUS CONCRETE (incl. tack coat)					SubTotal 4	
Motorway						
6		Thickness : 4 cm	m2	22,448.08		
SUM OF BILL No.5 - PAVEMENTS (Price Excluding VAT)					SubTotal 1+2+3+4	

CURBS, FOOTWAYS AND PAVED AREAS						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
RESERVED LINES					SubTotal 1	
1		Corrugated PVC flexible pipe with double isolation, heavy type, Ø160 mm	m	8,197.18		
SUM OF BILL No.6 - CURBS, FOOTWAYS AND PAVED AREAS (Price Excluding VAT)					SubTotal 1	

TRAFFIC SIGNS AND ROAD MARKINGS						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
TRAFFIC SIGNS					SubTotal 1	
Directional and Informative Signs						
1		Informative panel 120x300cm, A1-CI3	pcs.	1		
2		Informative panel360(380)x300cm, A1-CI3 ref (300x3	pcs.	1		
3		Informative panel430x320cm, A1-CI3	pcs.	1		
4		Informative panel 430x350cm, A1-CI3	pcs.	1		
5		Informative panel500x320cm, A1-CI3	pcs.	1		

6		Informative panel 600x450cm, Al-C13	pcs.	1		
7		Additional rectangular panel 50x600/50x480cm Al-C13 for square and rectangular signs	pcs.	1		
8		Yellow semicircular delineator 50x40cm Al for traffic islands	pcs.	1		
		Warning and Regulatory Signs				
9		Circular Sign D=90cm, Al-C13	pcs.	6.00		
10		Triangular Sign A=120cm, Al-C13	pcs.	1.00		
11		Progressive distance signals of LxH 135x35cm, Al-C13 (near highway exits)	pcs.	6		
12		Square Sign 90x90 cm Al-C13 (for lane addition or reduction)	pcs.	5		
13		Arrow Sign 250(300)x70cm, Al-C13 (near motorway ramps diversion)	pcs.	1		
		Steel Gantry				
14		Steel gantry system L-shape	pcs.	3		
15		Steel gantry system U-shape	pcs.	2		
		ROAD MARKINGS				
		Painting Line Markings				
16		White thermoplastic road marking continuous line (Type A), width 25cm	m	4,000.00		
17		White thermoplastic road marking on central carriageway discontinues line (Type B_7.5x4.5) width 15cm (converted in continuous line)	m	750.00		
18		White thermoplastic road marking discontinues line (Type D_3x3) width 25cm (converted in continuous line)	m	490.00		
		Painting of Marked Areas				
19		White bicomponent paint for traffic islands and zebra	m2	300		
		Painting of Arrows or Lettering				
20		White bicomponent paint for straightway arrow (7.5m)	pcs.	24		
21		White bicomponent paint for left/right turn arrow (7.5m)	pcs.	14		
22		White bicomponent paint for straightway and left/right turn arrow (7.5m)	pcs.	6		
23		White bicomponent paint for fast left/right turn arrow	pcs.	6		
24		White bicomponent paint for road text/sign markings	m2	23		
		Road Studs				
25		Aluminum 10x10cm Road Studs (Cat eyes) one direction, mounted in centerline of carriageway every 25m	pcs.	80		
26		Aluminum 10x10cm Road Studs (Cat eyes) one direction, mounted in zebra areas	pcs.	20		
SUM OF BILL No.7 - TRAFFIC SIGNS AND ROAD MARKINGS (Price Excluding VAT)					SubTotal 1+2	

STRUCTURES

STRUCTURES - UNDERPASS 07 AND WINGWALLS						
No.	TS Code	Description	Unit	Quantity	Unit Price [Euro]	Amount [Euro]

		EARTHWORKS			subtotal	
1		Cutting for foundations in soft or common soils	m ³	16,680.00		
2		Top Soil Removal	m ³	1,379.00		
3		Backfill adjoining to box structure	m ³	14,965.00		
4		Backfill adjoining to wingwalls	m ³	634.00		
5		Road construction backfill	m ³	3,115.00		
6		Ground improvement layer, compacted gravel layer under box structure, wingwalls and inlet-outlet bottom slab	m ³	351.00		
7		Filter layer behind walls (Granular filler)	m ³	43.00		
8		Geotextile	m ²	1,135.00		
		DRAINAGE			subtotal	
9		Filling material of drainage system	m ³	17.00		
10		Filling material of drainage system for Wingwalls	m ³	12.00		
11		Geotextile of drainage system	m ²	330.00		
12		Geotextile of drainage system for Wingwalls	m ²	93.00		
13		Drain Ø200mm behind walls	m	132.00		
14		Drain Ø200mm behind walls for Wingwalls	m	18.00		
15		Lean/Blinding Concrete C12/15 for filling under drain	m ³	571.00		
16		Lean/Blinding Concrete C12/15 for filling under drain of Wingwalls.	m ³	26.00		
		CONCRETE AND REINFORCEMENT			subtotal	
		Concrete				
17		Lean/Blinding Concrete C12/15 under approach slabs (t=15cm)	m ²	736.00		
18		Lean/Blinding Concrete C12/15 under box structure (t=15cm)	m ²	1,379.00		
19		Lean/Blinding Concrete C12/15 under wingwalls foundation and inlet-outlet bottom slab (t=15cm)	m ²	373.00		
20		Concrete C30/37 for approach slabs	m ³	184.00		
21		Concrete C30/37 for box structure	m ³	5,349.00		
22		Concrete C30/37 for wingwalls and inlet-outlet bottom slab	m ³	231.00		
		Reinforcement				
23		Reinforcement rebars B500C for box structure	t	2,070.00		
24		Reinforcement rebars B500C for approach slab	t	30.90		
25		Reinforcement rebars B500C for wingwalls and inlet-outlet bottom slab	t	26.87		
		WATERPROOFING			subtotal	
26		Waterproofing for top slab	m ²	1,848.00		
27		Concrete C20/25 for the protecting of waterproofing (min7cm) with galvanized welded mesh	m ³	95.00		
28		Surface finish for inside box	m ²	1,901.00		
29		Antipollution coating for inside box	m ²	1,901.00		

30		Bituminous coating of surfaces in contact with soils, for approach slabs	m ²	207.00		
31		Bituminous coating of surfaces in contact with soils, for box structures	m ²	746.00		
32		Bituminous coating of surfaces in contact with soils, for wingwalls and inlet-outlet bottom slab	m ²	236.00		
33		Waterstop at Construction joints	m	281.00		
		Expansion joint			subtotal	
34		Joint sealing material	l	45.00		
35		Non absorbent joint filler	m ³	1.93		
36		Waterstop	m	79.00		
SUM OF BILL No8 - Structures - Underpass No.07 and Wingwalls (Price Excluding VAT)					subtotal	

REINFORCED EARTH RETAINING WALLS (MSEW)

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		Reinforced Earth Retaining Wall (RE06) - TMS Right Side (Ch. 8+640 - Ch. 8+760)			SubTotal (RE01)	
1		Blocks of TMS 3x2x1 (including C-rings + Lacing wire + geotextile 180gr/m2)	pcs.	449		
2		Geogrid 150kN/m2	m2	5,830		
3		Geogrid 300kN/m2	m2	530		
4		Excavation for RE retaining wall in soft or common soils + trans auto	m3	4,260		
5		Foundation improvement layer for RE retaining wall (min. 0.5m thick, max. particle size D ≤ 80mm)	m3	620		
6		Backfill material behind RE retaining wall (stones size 10mm ≤ Dgab ≤ 200mm)	m3	5,690		
7		Filling with quarries material / previously excavated material (similar to road body)	m3	1,270		
8		Configuration concrete C20/25	m3	260		
9		Monitoring Instruments (movement markers, 3D targets, steel anchoring plate, etc.)	L.S.	1		
SUM OF BILL No.9 - REINFORCED EARTH RETAINING WALLS (MSEW) (Price Excluding VAT)					SubTotal	

LANDSCAPING

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		LANDSCAPING ON MOTORWAY BODY			SubTotal 1	
1		Planting decorative shrubs over New Jersey (Juniperus V.18 group of 3 every 6.6m)	pcs.	159.00		
		PLANTING TREES			SubTotal 2	
2		Planting decorative trees along the sidewalks of local roads (Tilia Cordata, d=16-18cm, every 6m)	pcs.	175.00		
		PLANTING GREEN AREAS			SubTotal 3	
3		Planting decorative flower seedings	pcs.	97.00		
4		Planting decorative trees	pcs.	74.00		
5		Planting decorative shrubs Oleander (Nerium oleander)	pcs.	76.00		

6		Planting clambering plant	pcs.	196.00		
7		Planting trees (Abies alba, d~10cm)	pcs.	54.00		
SUM OF BILL No.10 - LANDSCAPING (Price Excluding VAT)					SubTotal 1+2+3	

ELECTRICAL LIGHTING						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		DISMANTLING AND RELOCATION OF ELECTRIC POWER LINES			SubTotal 1	
1		Dismantling and relocation of high voltage overhead power Line with double circuit 220kV, included: - Dismantling and relocation of 1 normal suspension tower 220kV with double circuit - Dismantling and relocation of overhead line conductor with double circuit with length L=0.21km - Transport, excavation, backfilling, concrete works for the base of the HV tower, autocrane, stringing and restringing of conductor, earthing testing, commissioning of high voltage overhead line	L.S.	1.00		
2		Dismantling and relocation of high voltage overhead power Line with double circuit 110kV, included: - Dismantling and relocation of 1 normal suspension tower 110kV with double circuit - Dismantling and relocation of overhead line conductor with double circuit with length L=0.23km - Transport, excavation, backfilling, concrete works for the base of the HV tower, autocrane, stringing and restringing of conductor, earthing system, testing, commissioning of high voltage overhead line	L.S.	1.00		
3		Dismantling and relocation of medium/low voltage power linea, included: - Dismantling and relocation of 314 concrete columns with different heights 8, 9, 10 dhe 12m, completed with all accessories (insulators, crossarms, collar - Dismantling and relocation of medium/low voltage power lines with length approximately L=2.4km - Transport, excavation, backfilling, concrete works for the base of the MV/LV concrete column, autocrane, stringing and restringing of conductor, earthing system, testing and commissioning of medium/low voltage power lines	L.S.	1.00		
		SUM OF BILL No.11 - ELECTRICAL LIGHTING			SubTotal 1	

NOISE BARRIERS						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		NOISE BARRIER PANELS			SubTotal 1	
1	TS06 - 8.3.1	Noise barriers on motorway embankment	m2	1,500.00		
		NOISE BARRIER FOUNDATION			SubTotal 2	
2	TS05 - 3.5.3-1	Pile drilling with machinery ø600, L=6m in soft soil of road embankment	m	245.00		
3	TS02 - 1.3.1-2	Excavation for foundations in soft or common soils	m3	23.00		
4	TS02 - 1.4.3	Transport of excavated material up to 5km	m3	69.50		
5	TS05 - 5.3-1	Steel reinforcement B500C for piles	ton	7.70		
6	TS05 - 5.3-1	Steel reinforcement B500C for pile cap	ton	5.80		
7	TS05 - 6.2-10	Concrete structures C30/37 for driven pile	m3	69.50		
8	TS05 - 6.2-10	Concrete structures C30/37 for pile cap	m3	60.00		

9	TS05 - 6.2-2	Concrete structures C12/15	m3	9.90		
SUM OF BILL No.12 - NOISE BARRIERS (Price Excluding VAT)					SubTotal 1+2	

LOCAL ROADS

LOCAL ROAD 10a

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		SITE CLEARANCE			SubTotal1	
		Clearing & Grubbing				
1		General site clearance and grubbing	m2	5,180.00		
		SAFETY BARRIERS			SubTotal2	
		Metallic Barrier (Guardrail)				
2		Side guardrails type N1/W2 (with 2 waves in one side + accessories)	ml	532.00		
3		Side guardrails type H1/W2 (with 2 waves in one side + accessories)	ml	333.00		
		DRAINAGE			SubTotal3	
		Pavement Drainage				
4		Pavement drainage of local road	L.s	1.00		
		Culverts				
		Barrel				
5		Excavated material	m3	240.84		
6		Backfilling with sand-gravel compacted to 98% Mod. Proctor	m3	48.17		
7		Concrete C 30/37 for barrel support	m3	69.02		
8		Concrete C 30/37 for barrel	m3	19.96		
9		Steel reinforcement $\phi \geq 10$ mm for barrel	ton	2.12		
10		Blinding concrete C12/15 thickness 15cm	m3	10.74		
11		Waterstop-at CJ	m	100.00		
12		Geotextile mesh	m2	125.00		
13		Double asphalt coating for barrel	m2	130.32		
14		Waterproofing with special waterproofing membrane	m2	98.20		
15		Concrete C20/25 for the protection of waterproofing (min 7cm) with galvanized welded mesh	m3	2.64		
16		Perforated Concrete drain pipes $\phi 200$ mm	m	100.00		
17		Lean Concrete C12/15 under drainage pipe	m3	44.00		
18		Granular material around drainage pipe	m3	17.00		
19		Geotextile around drainage pipe	m2	175.00		
		Apex				
20		Concrete C 30/37 for apex	m3	0.32		
21		Steel reinforcement $\phi \geq 10$ mm for apex	ton	0.02		
		Approach Slab				
22		Steel reinforcement $\phi \geq 10$ mm for slab	ton	1.10		
23		Concrete C 30/37 for slab	m3	14.00		
24		Blinding concrete C12/15 thickness 15cm	m3	8.40		
25		Double asphalt coating for slab	m ²	59.50		
		Wingwalls				
26		Backfilling gravel or crushed stone	m3	61.40		
27		Concrete C30/37 for wingwalls	m3	21.88		

28		Steel reinforcement $\phi \geq 10\text{mm}$ for wingwalls	ton	2.45		
29		Blinding concrete C12/15	m3	5.00		
30		Compacted gravel base	m3	15.80		
31		Non absorbent joint filler	m3	0.05		
32		Sealing compound	L	3.96		
33		Double asphalt coating for walls	m2	24.12		
34		Perforated Concrete drain pipes $\phi 200\text{mm}$	ml	9.92		
35		Lean Concrete C12/15 under drainage pipes	m3	6.48		
36		Granular material around drainage pipes	m3	1.64		
37		Geotextile around drainage pipe	m3	15.40		
		Wingwall's Slab				
38		Concrete C30/37	m3	10.66		
39		Steel reinforcement $\phi \geq 10\text{mm}$ for wingwalls	ton	0.74		
40		Blinding concrete C12/15	m3	5.52		
41		Compacted gravel base	m3	32.58		
		Drop Inlet				
42		Excavated material	m3	36.06		
43		Backfilling gravel or crushed stone	m3	9.53		
44		Drop Inlet Step Irons (Steps for Concrete)	pcs	34.00		
45		Concrete C30/37 for drop inlet	m3	13.96		
46		Steel reinforcement $\phi \geq 10\text{mm}$ for drop inlet	ton	1.78		
47		Blinding concrete C12/15	m3	1.94		
48		Compacted gravel base	m3	13.83		
49		Waterstop-at CJ	ml	21.20		
		EARTHWORKS			SubTotal4	
		Excavation				
50		Excavate topsoil (30cm)	m3	1,597.84		
51		Cut in hard material, free section + trans auto	m3	247.30		
52		Cut in medium material, free section + trans auto	m3	1,236.42		
53		Cut in soft material, free section + trans auto	m3	989.14		
		Filling				
54		Embankment from cutting material, compacted up to 95% of modified AASHTO	m3	583.29		
55		Embankment with appropriate borrowed material, compacted up to 95% of modified AASHTO	m3	388.86		
		Stabilizing Measures				
56		Separation geotextile 280 gr/m2 (type Mactex H55.1	m2	1,123.20		
		PAVEMENTS			SubTotal5	
		Unbound Gravel				
57		Crushed stone fine material (0-31.5mm), 98% of	m2	3,635.30		
58		Crushed stone (5-40mm) compacted base course up to to 98% of modified AASHTO density on roadway, h=(15+15)cm	m2	3,217.00		
59		Crushed stone fine material (0-31.5mm) for verges	m3	14.04		
		Bituminous Bound Binder Course (incl. tack coat)				
60		Thickness : 6 cm	m2	3,002.87		
		Bituminous Bound Wearing Course (incl. tack coat)				
61		Thickness : 4 cm	m2	3,002.87		
		CURBS, FOOTWAYS AND PAVED AREAS			SubTotal6	
		Concrete Curbing				
62		Concrete C20/25, for concrete gutter (a=0.5m; V=0.0825m3/ml)	m3	67.65		

63		Concrete C20/25, for concrete curb (a=0.3m; b=0.2; V=0.0589m3/ml)	m3	56.55		
64		Concrete C20/25, for concrete curb foundation (a=0.3m; b=0.2; V=0.0785m3/ml)	m3	64.37		
65		Concrete C20/25, for concrete curb (a=0.15m; b=0.42; V=0.0625m3/ml)	m3	51.25		
66		Concrete C20/25, for concrete curb foundation (a=0.15m; b=0.42; V=0.0845m3/ml)	m3	69.29		
		Blockwork Paving				
67		6cm block on 6 cm sand laying course, 10cm base course and 25cm gravel layer	m2	1,460.00		
		TRAFFIC SIGNS AND ROAD MARKINGS			SubTotal7	
		Directional And Informative Signs				
68		Arrow Sign 40x150 cm AI-C11	pcs.	8.00		
		Warning And Regulatory Signs				
69		Circular Sign D=40cm, AI-C12	pcs.	2.00		
70		Triangular Sign A=60cm, AI-C12	pcs.	4.00		
		Painting Line Markings				
71		White thermoplastic road marking continuous line	ml	234.00		
72		White thermoplastic road marking discontinues line (Type D 3x3) width 12cm	ml	205.00		
		ELECTRICAL LIGHTING			SubTotal8	
		Electrical Lighting of Local Road LR 10 (a, c, d)				
73		S.I High performance LED road luminaries, 68W, IP66, IK09, 9926 lm, 4000 K, CRI 70, 230V. Dimensions (L.558 x W.227 x H115)mm, Ta-30+40°C life 80%Ta-30+40°C life 90%: 100.000h (L90B100) Completed with electronic dimer driver, including pole mounting accessories. According to technical specification	pcs	65.00		
74		S.I LED protection device for luminaries related to atmospheric emissions and driver voltage accumulation	pcs	65.00		
75		S.I Guain flexible electric pipe with double isolation Ø = 16 mm	ml	124.00		
76		S.I Lighting poles H= 8.8 m (H1 = 8.0 m over ground, H2 = 0.8 m underground), wich includes all accessories. 4 mm thickness. fixture shoulder I =1.5	pcs	65.00		
77		S.I Concrete plinth C16/20 for road lighting poles composed with concrete M250 + framework structure for lighting poles base	m3	55.00		
78		S.I Concrete manhole for lighting poles, with dim 50x50x80 cm, with cast iron covering heavy type	pcs	65.00		
79		S.I Cable derivation joint, for cable minimum section S = 3x1.5 mm² and maximum cable section S = 4x35 mm². composed with bicomponent for water isolation app. To be used in junction manholes for supplying the lighting poles. (Referr to DETAIL 3a)	pcs	70.00		
80		S.I Corrugated PVC flexible Pipe with double isolation, heavy type, Ø = 100 mm	ml	3,600.00		
81		S.I Earthing electrode H=1.5 ml, 50x50x5mm, galvanised for road light poles	pcs	65.00		
82		S.I External Earthing FeZn Ø=10 mm, includes all accessories (0.634 kg per 1 ml)	kg	1,200.00		
83		S.I Bare copper conductor S=1x25 mm²	ml	40.00		

84		S.I External Earthing clamp, tape-electrode-conductor up to section S = 25 mm ²	pcs	65.00		
85		S.I Derivation box, alluminium type, dim. (L.130xW.59xH.44) mm, IP65, completed with fittings and insulating gel for storage of insulation	pcs	18.00		
86		S.I Rigid steel metallic conduit, for surface installation, Ø = 25 mm, completed with installation accessories (elbows, couplings, metal straps, metal expansion plug, screws etc.,)	ml	220.00		
87		S.I Low voltage single copper conductor, G16 rubber insulated, PVC sheathed, Un = 0,6/1kV, FG16R type, S = 1x16 mm ² , with yellow/green colour of outer sheath	ml	215.00		
88		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1kV, FG16OR16 type, S = 4x16 mm ²	ml	350.00		
89		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 4 x 10 mm ²	ml	1,600.00		
90		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 4x6 mm ²	ml	550.00		
91		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 5x2.5 mm ²	ml	220.00		
92		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 3x2.5 mm ²	ml	820.00		
93		S.I PVC flex conduit, heavy type, Ø = 25 mm, guaine	ml	650.00		
94		S.I Low Voltage Road lighting distribution electrical panel, IP 66, with door and includes all accessories, and corpuscular relay	pcs	1.00		
95		S.I PVC corrugated pipe with double isolation flexible Ø=200-300mm for fixing the light poles	ml	55.00		
96		S.I Concrete slab for lighting poles and for manholes M250 type	m3	28.00		
97		S.I Filling with grain sand layer for lighting poles in the concrete base, sand cover of pipes in the cable duct	m3	252.00		
98		Excavation of Low Voltage cable route channel as detail	m3	580.00		
99		Backfilling with existing materials for Low Voltage cables in the channel route	m3	290.00		
100		S.I Steel pipe, thickness 8.6 mm, for cross road route with outer diameter Ø = 110 mm, painted with anticorrosive, (19.7kg for 1 ml. Total. L = 16 ml). Installation 0.5-1ml depth.	kg	320.00		
101		S.I Concrete control electric manhole, with dim. 100x100x80 cm, with heavy duty cast iron cover	pcs	4.00		
102		S.I Low voltage signaling PVC band	ml	1,800.00		
SUM OF LOCAL ROAD10a (Price Excluding VAT)					SubTotal 1+2+3+4+ 5+6+7+8	

LOCAL ROAD 10b

No.	TS Code	Description	Unit	Quantity	nit Price in	Amount in €
		SITE CLEARANCE			SubTotal1	
		Clearing & Grubbing				
1		General site clearance and grubbing	m2	5,180.00		
		SAFATY BARRIERS			SubTotal2	

		Metallic Barrier (Guardrail)				
2		Side guardrails type N1/W2 (with 2 waves in one side + accessories)	ml	532.00		
3		Side guardrails type H1/W2 (with 2 waves in one side + accessories)	ml	333.00		
		DRAINAGE			SubTotal3	
		Culverts				
		Barrel				
4		Excavated material	m3	240.84		
5		Backfilling with sand-gravel compacted to 98% Mod. Proctor	m3	48.17		
6		Concrete C 30/37 for barrel support	m3	69.03		
7		Concrete C 30/37 for barrel	m3	19.96		
8		Steel reinforcement $\phi \geq 10\text{mm}$ for barrel	ton	2.12		
9		Blinding concrete C12/15 thickness 15cm	m3	10.74		
10		Waterstop-at CJ	m	100.00		
11		Geotextile mesh	m2	125.00		
12		Double asphalt coating for barrel	m2	130.32		
13		Waterproofing with special waterproofing membrane	m2	98.20		
14		Concrete C20/25 for the protection of waterproofing (min 7cm) with galvanized welded mesh	m3	2.64		
15		Perforated Concrete drain pipes $\phi 200\text{mm}$	m	100.00		
16		Lean Concrete C12/15 under drainage pipe	m3	44.00		
17		Granular material around drainage pipe	m3	17.00		
18		Geotextile around drainage pipe	m2	175.00		
		Apex				
19		Concrete C 30/37 for apex	m3	0.32		
20		Steel reinforcement $\phi \geq 10\text{mm}$ for apex	ton	0.02		
		Wingwalls				
21		Backfilling gravel or crushed stone	m3	61.40		
22		Concrete C30/37 for wingwalls	m3	21.88		
23		Steel reinforcement $\phi \geq 10\text{mm}$ for wingwalls	ton	2.45		
24		Blinding concrete C12/15	m3	5.00		
25		Compacted gravel base	m3	15.80		
26		Non absorbent joint filler	m3	0.05		
27		Sealing compound	L	3.96		
28		Double asphalt coating for walls	m2	24.12		
29		Perforated Concrete drain pipes $\phi 200\text{mm}$	ml	9.92		
30		Lean Concrete C12/15 under drainage pipes	m3	6.48		
31		Granular material around drainage pipes	m3	1.64		
32		Geotextile around drainage pipe	m3	15.40		
		Drop Inlet				
33		Excavated material	m3	36.06		
34		Backfilling gravel or crushed stone	m3	9.53		
35		Drop Inlet Step Irons (Steps for Concrete)	pcs	34.00		
36		Concrete C30/37 for drop inlet	m3	13.96		
37		Steel reinforcement $\phi \geq 10\text{mm}$ for drop inlet	ton	1.78		
38		Blinding concrete C12/15	m3	1.94		
39		Compacted gravel base	m3	13.83		
40		Waterstop-at CJ	ml	21.20		
		EARTHWORKS			SubTotal4	
		Excavation				
41		Excavate topsoil (30cm)	m3	3,804.46		
42		Cut in hard material, free section + trans auto	m3	2,174.60		
43		Cut in medium material, free section + trans auto	m3	10,872.97		
44		Cut in soft material, free section + trans auto	m3	8,698.37		
		Filling				

45		Embankment from cutting material, compacted up to 95% of modified AASHTO	m3	4,123.74		
46		Embankment with appropriate borrowed material, compacted up to 95% of modified AASHTO	m3	2,749.16		
		PAVEMENTS			SubTotal5	
		Unbound Gravel				
47		Crushed stone fine material (0-31.5mm), 98% of modified Proctor AASHTO density, h=15cm	m2	3,495.50		
48		Crushed stone (5-40mm) compacted base course up to	m2	5,180.00		
49		Crushed stone fine material (0-31.5mm) for verges	m3	147.97		
		Bituminous Bound Binder Course (incl. tack coat)				
50		Thickness : 6 cm	m2	3,121.00		
		Bituminous Bound Wearing Course (incl. tack coat)				
51		Thickness : 4 cm	m2	3,121.00		
		TRAFFIC SIGNS AND ROAD MARKINGS			SubTotal6	
		Directional And Informative Signs				
		Warning And Regulatory Signs				
52		Circular Sign D=40cm, A1-C12	pcs.	1.00		
53		Triangular Sign A=60cm, A1-C12	pcs.	2.00		
		Painting Line Markings				
54		White thermoplastic road marking continuous line (Type A), width 12cm	ml	1,555.00		
SUM OF LOCAL ROAD 10b (Price Excluding VAT)					SubTotal 1+2+3+4+ 5+6	

LOCAL ROAD LR10c

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		SITE CLEARANCE			SubTotal1	
		Clearing & Grubbing				
1		General site clearance and grubbing	m2	500.00		
		SAFATY BARRIERS			SubTotal2	
		Metallic Barrier (Guardrail)				
2		Side guardrails type N1/W2 (with 2 waves in one side + accessories)	ml	213.00		
		DRAINAGE			SubTotal3	
		Pavement Drainage				
3		Pavement drainage of local road	L.s	1.00		
		Culverts				
		Barrel				
4		Excavated material	m3	132.66		
5		Backfilling with sand-gravel compacted to 98% Mod. Proctor	m3	26.53		
6		Concrete C 30/37 for barrel support	m3	37.35		
7		Concrete C 30/37 for barrel	m3	10.52		
8		Steel reinforcement $\phi \geq 10$ mm for barrel	ton	1.25		
9		Blinding concrete C12/15 thickness 15cm	m3	5.56		
10		Waterstop-at CJ	m	50.00		
11		Geotextile mesh	m2	62.50		
12		Double asphalt coating for barrel	m2	69.24		

13		Waterproofing with special waterproofing membrane	m2	50.00		
14		Concrete C20/25 for the protection of waterproofing (min 7cm) with galvanized welded mesh	m3	1.39		
15		Perforated Concrete drain pipes ϕ 200mm	m	50.00		
16		Lean Concrete C12/15 under drainage pipe	m3	22.00		
17		Granular material around drainage pipe	m3	8.50		
18		Geotextile around drainage pipe	m2	87.50		
		Wingwalls				
19		Backfilling gravel or crushed stone	m3	46.05		
20		Concrete C30/37 for wingwalls	m3	16.60		
21		Steel reinforcement $\phi \geq 10$ mm for wingwalls	ton	1.84		
22		Blinding concrete C12/15	m3	3.75		
23		Compacted gravel base	m3	11.85		
24		Non absorbent joint filler	m3	0.03		
25		Sealing compound	L	2.97		
26		Double asphalt coating for walls	m2	18.10		
27		Perforated Concrete drain pipes ϕ 200mm	ml	7.44		
28		Lean Concrete C12/15 under drainage pipes	m3	4.86		
29		Granular material around drainage pipes	m3	1.23		
30		Geotextile around drainage pipe	m3	11.60		
		Drop Inlet				
31		Excavated material	m3	19.30		
32		Backfilling gravel or crushed stone	m3	4.83		
33		Drop Inlet Step Irons (Steps for Concrete)	pcs	9.00		
34		Concrete C30/37 for drop inlet	m3	6.52		
35		Steel reinforcement $\phi \geq 10$ mm for drop inlet	ton	0.79		
36		Blinding concrete C12/15	m3	0.86		
37		Compacted gravel base	m3	5.83		
38		Waterstop-at CJ	ml	8.40		
		EARTHWORKS			SubTotal4	
		Excavation				
39		Cut in hard material, free section + trans auto	m3	211.92		
40		Cut in medium material, free section + trans auto	m3	1,059.63		
41		Cut in soft material, free section + trans auto	m3	847.71		
		Filling				
42		Embankment from cutting material, compacted up to 95% of modified AASHTO	m3	825.33		
43		Embankment with appropriate borrowed material, compacted up to 95% of modified AASHTO	m3	550.22		
		PAVEMENTS			SubTotal5	
		Unbound Gravel				
44		Crushed stone fine material (0-31.5mm), 98% of modified Proctor AASHTO density, h=15cm	m2	4,293.95		
45		Crushed stone (5-40mm) compacted base course up to 98% of modified AASHTO density on roadway, h=(10+15)cm	m2	4,424.00		
		Bituminous Bound Binder Course (incl. tack coat)				
46		Thickness : 6 cm	m2	3,814.00		
		Bituminous Bound Wearing Course (incl. tack coat)				
47		Thickness : 4 cm	m2	3,814.00		
		CURBS, FOOTWAYS AND PAVED AREAS			SubTotal6	

		Concrete Curbing				
48		Concrete C20/25, for concrete gutter (a=0.5m; V=0.0825m3/ml)	m3	103.62		
49		Concrete C20/25, for concrete curb (a=0.3m; b=0.2; V=0.0589m3/ml)	m3	56.54		
50		Concrete C20/25, for concrete curb foundation (a=0.3m; b=0.2; V=0.0785m3/ml)	m3	64.37		
51		Concrete C20/25, for concrete curb (a=0.15m; b=0.42; V=0.0625m3/ml)	m3	51.25		
52		Concrete C20/25, for concrete curb foundation (a=0.15m; b=0.42; V=0.0845m3/ml)	m3	69.29		
		Blockwork Paving				
53		6cm block on 6 cm sand laying course, 10cm base course and 25cm gravel layer	m2	1,460.00		
		TRAFFIC SIGNS AND ROAD MARKINGS			SubTotal7	
		Directional And Informative Signs				
		Warning And Regulatory Signs				
54		Circular Sign D=40cm, Al-C12	pcs.	2.00		
55		STOP sign D=60 cm Al-C12	pcs.	1.00		
56		Triangular Sign A=60cm, Al-C12	pcs.	3.00		
		Painting Line Markings				
57		White thermoplastic road marking continuous line (Type A), width 12cm	ml	178.40		
58		White thermoplastic road marking discontinues line (Type D 3x3) width 12cm	ml	223.00		
		STRUCTURES			SubTotal8	
		Earthworks				
59		Excavated material	m3	234.30		
60		Backfilling with gravel or crushed stone	m3	73.70		
61		Filling with gravel or crushed stone	m3	100.10		
62		Granular material around drainage pipe	m3	70.00		
63		Geotextile around drainage pipe	m2	550.00		
		Drainage				
64		Drain Ø200mm behind abutment or walls	ml	105.00		
		Pvc Pipe				
65		PVC Pipe Ø 100mm	ml	10.00		
		Concrete				
66		Blinding concrete C12/15 for leveling tmin 50 cm	m3	45.00		
67		Lean Concrete C12/15 under foundation t=15 cm	m3	20.00		
68		Concrete C 30/37 retaining wall	m3	90.00		
		Reinforcement				
69		Steel reinforcement $\phi \geq 10$ mm for retaining wall	t	7.20		
		Joints				
70		Non absorbent joint filler	m3	0.01		
71		Sealing compound	L	0.02		
72		Waterstop-at vertical joint (Flexible soft PVC Waterbars)	m	26.40		
73		Waterstop-at horizontal joint (Flexible soft PVC Waterbars)	m	5.60		
		Waterproofing				
74		Waterproofing with Double asphalt coating	m2	380.00		

		Equipement				
75		Handrail for overpasses and underpasses	m	207.00		
		ELECTRICAL LIGHTING			SubTotal	
SUM OF LOCAL ROAD 10c (Price Excluding VAT)					SubTotal 1+2+3+4+5+6+7+8	

LOCAL ROAD 10d

No.	TS Code	Description	Unit	Quantity	Unit Price in	Amount in €
		SITE CLEARANCE			SubTotal1	
		Clearing & Grubbing				
1		General site clearance and grubbing	m2	6,025.00		
		SAFETY BARRIERS			SubTotal2	
		Metallic Barrier (Guardrail)				
2		Side guardrails type N1/W2 (with 2 waves in one side + accessories)	ml	572.00		
		DRAINAGE			SubTotal3	
		Pavement Drainage				
3		Pavement drainage of local road	L.s	1.00		
		Culverts				
		Barrel				
4		Excavated material	m3	309.49		
5		Backfilling with sand-gravel compacted to 98% Mod. Proctor	m3	73.57		
6		Concrete C 30/37 for barrel support	m3	82.59		
7		Concrete C 30/37 for barrel	m3	54.44		
8		Steel reinforcement $\phi \geq 10$ mm for barrel	ton	15.73		
9		Blinding concrete C12/15 thickness 15cm	m3	57.30		
10		Waterstop-at CJ	m	217.20		
11		Geotextile mesh	m2	225.90		
12		Double asphalt coating for barrel	m2	225.80		
13		Waterproofing with special waterproofing membrane	m2	88.82		
14		Concrete C20/25 for the protection of waterproofing (min 7cm) with galvanized welded mesh	m3	51.73		
15		Perforated Concrete drain pipes $\phi 200$ mm	m	81.84		
16		Lean Concrete C12/15 under drainage pipe	m3	36.34		
17		Granular material around drainage pipe	m3	93.18		
18		Geotextile around drainage pipe	m2	94.50		
		Joint				
19		Non absorbent joint filler	m3	0.10		
20		Sealing compound	L	8.00		
21		Waterstop at joints	ml	20.00		
		Approach Slab				
22		Steel reinforcement $\phi \geq 10$ mm for slab	ton	1.17		
23		Concrete C 30/37 for slab	m3	15.00		
24		Blinding concrete C12/15 thickness 15cm	m3	9.00		
25		Double asphalt coating for slab	m ²	63.80		
		Wingwalls				
26		Backfilling gravel or crushed stone	m3	136.54		
27		Concrete C30/37 for wingwalls	m3	41.48		
28		Steel reinforcement $\phi \geq 10$ mm for wingwalls	ton	3.43		
29		Blinding concrete C12/15	m3	5.82		
30		Compacted gravel base	m3	29.38		
31		Non absorbent joint filler	m3	79.30		
32		Sealing compound	L	6.90		
33		Double asphalt coating for walls	m2	93.14		
34		Perforated Concrete drain pipes $\phi 200$ mm	ml	17.24		

35		Lean Concrete C12/15 under drainage pipes	m3	11.08		
36		Granular material around drainage pipes	m3	2.86		
37		Geotextile around drainage pipe	m3	26.42		
		Wingwall's Slab				
38		Concrete C30/37	m3	13.16		
39		Steel reinforcement $\phi \geq 10\text{mm}$ for wingwalls	ton	0.92		
40		Blinding concrete C12/15	m3	6.80		
41		Compacted gravel base	m3	41.28		
		Drop Inlet				
42		Drop Inlet Step Irons (Steps for Concrete)	pcs	9.00		
		EARTHWORKS			SubTotal4	
		Excavation				
43		Excavate topsoil (30cm)	m3	3,600.00		
44		Cut in hard material, free section + trans auto	m3	305.80		
45		Cut in medium material, free section + trans auto	m3	1,528.78		
46		Cut in soft material, free section + trans auto	m3	1,223.03		
		Filling				
47		Embankment from cutting material, compacted up to 95% of modified AASHTO	m3	5,536.47		
48		Embankment with appropriate borrowed material, compacted up to 95% of modified AASHTO	m3	3,690.98		
		Stabilizing Measures				
49		Separation geotextile 280 gr/m2 (type Mactex H55.1 or equivalent) for road body in embankments and low cuts	m2	6,149.40		
		PAVEMENTS			SubTotal5	
		Unbound Gravel				
50		Crushed stone fine material (0-31.5mm), 98% of modified Proctor AASHTO density, h=15cm	m2	6,863.90		
51		Crushed stone (5-40mm) compacted base course up to to 98% of modified AASHTO density on roadway, h=(15+15)cm	m2	6,832.40		
		Bituminous Bound Binder Course (incl. tack coat)				
52		Thickness : 6 cm	m2	3,901.00		
		Bituminous Bound Wearing Course (incl. tack coat)				
53		Thickness : 4 cm	m2	3,901.00		
		CURBS, FOOTWAYS AND PAVED AREAS			SubTotal6	
		Concrete Curbing				
54		Concrete C20/25, for concrete gutter (a=0.5m; V=0.0825m3/ml)	m3	99.82		
55		Concrete C20/25, for concrete curb (a=0.3m; b=0.2; V=0.0589m3/ml)	m3	71.26		
56		Concrete C20/25, for concrete curb foundation (a=0.3m; b=0.2; V=0.0785m3/ml)	m3	94.98		
57		Concrete C20/25, for concrete curb (a=0.15m; b=0.42; V=0.0625m3/ml)	m3	75.62		
58		Concrete C20/25, for concrete curb foundation (a=0.15m; b=0.42; V=0.0845m3/ml)	m3	102.24		
		Blockwork Paving				
59		6cm block on 6 cm sand laying course, 10cm base course and 25cm gravel layer	m2	2,153.00		
		TRAFFIC SIGNS AND ROAD MARKINGS			SubTotal7	
		Directional And Informative Signs				

		Warning And Regulatory Signs				
60		Circular Sign D=40cm, Al-C12	pcs.	1.00		
61		STOP sign D=60 cm Al-C12	pcs.	1.00		
62		Triangular Sign A=60cm, Al-C12	pcs.	2.00		
		Painting Line Markings				
63		White thermoplastic road marking continuous line (Type A), width 12cm	ml	145.70		
64		White thermoplastic road marking discontinues line (Type D 3x3) width 12cm	ml	252.00		
		STRUCTURES			SubTotal8	
		Earthworks				
65		Excavated material	m3	43.75		
66		Backfilling with gravel or crushed stone	m3	27.19		
67		Filling with gravel or crushed stone	m3	17.88		
68		Granular material around drainage pipe	m3	10.50		
69		Geotextile around drainage pipe	m2	82.50		
		Drainage				
70		Drain Ø200mm behind abutment or walls	ml	15.75		
		Pvc Pipe				
71		PVC Pipe Ø 100mm	ml	1.65		
		Concrete				
72		Blinding concrete C12/15 for leveling tmin 50 cm	m3	6.75		
73		Lean Concrete C12/15 under foundation t=15 cm	m3	3.63		
74		Concrete C 30/37 retaining wall	m3	21.60		
		Reinforcement				
75		Steel reinforcement $\phi \geq 10$ mm for retaining wall	t	1.82		
		Joints				
76		Non absorbent joint filler	m3	0.01		
77		Waterstop-at vertical joint (Flexible soft PVC Waterbars)	m	4.50		
78		Waterstop-at horizontal joint (Flexible soft PVC Waterbars)	m	1.15		
		Waterproofing				
79		Waterproofing with Double asphalt coating	m2	73.20		
		Equipement				
80		Handrail for overpasses and underpasses	m	17.00		
SUM OF LOCAL ROAD 10d (Price Excluding VAT)					SubTotal 1+2+3+4+ 5+6+7+8	
SUM OF BILL No.13 - TOTAL Sum of LOCAL ROADS (10a+10b+10c+10d) (Price Excluding VAT)						
Sum of SUBTOTAL A. (KM8+200 - KM 9+166) / SUBTOTAL A.(BILL 1 ÷ BILL 13)						-
B.NYJA NË KM 2+710 DHE RAMPAT, RRUGËT LIDHËSE ME AUTOSTRADËN						
SITE CLEARANCE						
No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
CLEARING AND GRUBBING					SubTotal1	
1		Removal of trees and stumps	pcs.	200		
DEMOLITION OF EXISITNG BUILDINGS					SubTotal2	

2		Demolition of private buildings (single story including basement)	m2	260		
3		Demolition of private buildings (multi story including basement)	m2	290		
4		Demolition of greenhouses	m2	6,350		
		DEMOLITION OF EXISTING PAVEMENT			SubTotal3	
5		Demolition of existing asphalt pavement	m2	500		
		DEMOLITION OF EXISTING CONCRETE STRUCTURES			SubTotal4	
6		Demolition of existing bridges and culverts	m3	100		
7		Demolition of other existing concrete structures (booths, sidewalks, surrounding walls etc.)	m3	70		
		SUM OF BILL No.1 - SITE CLEARANCE (Price Excluding VAT)			SubTotal (1+2+3+4)	

SAFETY BARRIERS

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		METALLIC BARRIER (GUARDRAIL)			SubTotal1	
1		Side guardrails type N1/W2 (with 2 waves in one side + accessories)	ml	140.00		
2		Side guardrails type N2/W5 (with 2 waves in one side + accessories)	m	2,275		
3		Side guardrail type H2/W5 (with 3 waves in one side + accessories)	m	130		
		CRUSH CUSHION			SubTotal2	
4		Crush Cushion Class 100	pcs.	2		
		SUM OF BILL No.2 - SAFETY BARRIERS (Price Excluding VAT)			SubTotal1 +2	

DRAINAGE

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
		ROADSIDE CHANNELS			Subtotal1	
		Reinforced Concrete Lining				
1		Reinforced Concrete C20/25 lined channel trapezoidal base width 0.5m / height 0.5m / side slope 0.75:1	m	1,581		
2		Reinforced Concrete C20/25 lined channel trapezoidal 0.9/0.75/1:1	m	58		
3		Reinforced Concrete C20/25 lined channel trapezoidal 1.0/1.0/0.75:1	m	42		
		Earthworks			Subtotal2	
4		Excavation in soft or common soils + trans auto	m3	1,795		
5		Filling with excavated material and compacted	m3	247		
		PAVEMENT DRAINAGE			Subtotal3	
		Interchanges Concrete Gutters				
		IC04 + (LR03 & LR03a & LR04)				
6		RC Gutter Type-1 (b=0.95m; A=0.18m ² /m; Steel=15kg/m), Concrete C20/25, XC1	m	2,060		
		STORM DRAIN			Subtotal4	
		Storm Pipes				
7		DN300mm, HDPE corrugated SN8	m	710		
8		DN375mm, HDPE corrugated SN8	m	360		
9		DN450mm, HDPE corrugated SN8	m	120		
		Trench Drains				

10	20x30 (Width 20cm, Height 30cm)	m	165		
11	20x40 (Width 20cm, Height 40cm)	m	135		
12	25x50 (Width 25cm, Height 50cm)	m	50		
13	30x50 (Width 30cm, Height 50cm)	m	65		
14	30x60 (Width 30cm, Height 60cm)	m	30		
15	35x70 (Width 35cm, Height 70cm)	m	150		
16	40x80 (Width 40cm, Height 80cm)	m	165		
	DETENTION BASIN			Subtotal5	
	Earthworks				
17	Excavation in soft or common soils + trans auto	m3	10		
	Inlet and Outlet Piping				
18	DN750mm, HDPE corrugated SN8	m	26		
	CULVERTS			Subtotal6	
	Barrel				
19	Excavated material for culvert in soft or common soils + trans auto	m3	4,568		
20	Backfilling with sand-gravel compacted to 98% Mod. Proctor	m3	4,647		
21	Concrete C30/37 for barrel	m3	1,109		
22	Steel reinforcement $\phi \geq 10$ mm for barrel	ton	88.59		
23	Blinding concrete C12/15 (t=15cm)	m2	1,005		
24	Waterstop at CJ	m	794		
25	Geotextile	m2	2,074		
26	Bituminous coating of surfaces in contact with soils, for box structures	m2	972		
27	Waterproofing for top slab	m2	1,618		
28	Concrete C20/25 for the protection of waterproofing (min. 7cm) with galvanized welded mesh	m3	60		
29	Perforated corrugated HDPE drain pipes $\phi 200$ mm	m	794		
30	Lean Concrete C12/15 under drainage pipe	m3	452		
31	Granular material around drainage pipe	m3	125		
32	Geotextile around drainage pipe	m2	1,351		
33	Impermeable clay layer	m3	2		
	Apex				
34	Concrete C30/37 for apex	m3	19		
35	Steel reinforcement $\phi \geq 10$ mm for apex	ton	1.805		
	Joint				
36	Non absorbent joint filler	m3	0.70		
37	Sealing compound	L	43		
38	Waterstop at joints	m	109		
	Approach Slab				
39	Steel reinforcement $\phi \geq 10$ mm for slab	ton	10.814		
40	Concrete C30/37 for slab	m3	121		
41	Blinding concrete C12/15 (t=15cm)	m2	438		
42	Double asphalt coating for slab	m2	620		
	Wingwalls				
43	Backfilling gravel or crushed stone	m3	576		
44	Concrete C30/37 for wingwalls	m3	116		
45	Steel reinforcement $\phi \geq 10$ mm for wingwalls	ton	10.163		
46	Blinding concrete C12/15 for wingwalls (t=15cm)	m2	70		
47	Compacted gravel base	m3	75		
48	Non absorbent joint filler	m3	0.20		
49	Sealing compound	L	15		
50	Bituminous coating of surfaces in contact with soils, for wingwalls and inlet-outlet bottom slab	m2	305		
51	Perforated corrugated HDPE drain pipes $\phi 200$ mm	m	29		
52	Lean Concrete C12/15 under drainage pipes	m3	34		
53	Granular material around drainage pipes	m3	6		
54	Geotextile around drainage pipe	m3	48		
	Wingwall's Slab				

55		Concrete C30/37	m3	41		
56		Steel reinforcement $\phi \geq 10\text{mm}$ for wingwalls	ton	2.83		
57		Blinding concrete C12/15 for wingwall's slab (t=15cm)	m2	132		
58		Compacted gravel base	m3	129		
Drop Inlet						
59		Excavated material	m3	24		
60		Backfilling gravel or crushed stone	m3	36		
61		Drop Inlet Iron Step (Steps for Concrete)	pes.	7		
62		Concrete C30/37 for drop inlet	m3	8		
63		Steel reinforcement $\phi \geq 10\text{mm}$ for drop inlet	ton	0.895		
64		Blinding concrete C12/15 for drop inlet (t=15cm)	m2	7		
65		Waterstop at joints	m	7		
Scouring Protection						
66		Gabion mattress thickness 50cm	m2	886		
67		Gabion box 1m3	m3	357		
68		Separation geotextile 280 gr/m2 (type Mactex H55.1 or equivalent)	m2	1,285		
STREAM ARRANGEMENTS					Subtotal7	
Drainage Channel (at Culvert St.1+575)						
69		Excavation in soft or common soils + trans auto	m3	1,895		
70		Filling	m3	200		
71		Reinforced concrete C20/25 lining	m3	944		
72		Gravel layer under lining	m3	508		
					Subtotal 1+2+3+4+ 5+6+7	
SUM OF BILL No.3 - DRAINAGE (Price Excluding VAT)						

EARTHWORKS AND STABILISING MEASURES

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
EXCAVATION					SubTotal1	
Motorway						
1		Excavate topsoil	m3	2,135		
2		Cut in soft material, free section + trans auto	m3	15,765		
Interchange No.4 + (LR03 & LR03a & LR04)						
3		Excavate topsoil	m3	32,774		
4		Cut in soft material, free section + trans auto	m3	2,792		
5		Cut in medium material, free section + trans auto	m3	4,381		
6		Cut in hard material, free section + trans auto	m3	788		
FILLING					SubTotal2	
Motorway						
1		Embankment from cutting material, compacted up to 95% of modified AASHTO	m3	10,425		
2		Embankment with appropriate borrowed material, compacted up to 95% of modified AASHTO	m3	15,635		
3		Replacement of weak foundation soil with granular/rock material (50cm or 100cm thick, max. particle size $5\text{mm} \leq D \leq 100\text{mm}$), below the pavement structure in low cut sections (see the progressive cross section of motorway)	m3	365		
Interchange No.4 + (LR03 & LR03a & LR04)						
4		Embankment from cutting material, compacted up to 95% of modified AASHTO	m3	11,283		

5		Embankment with appropriate borrowed material, compacted up to 95% of modified AASHTO	m3	101,546		
6		Separation geotextile 280 gr/m2 (type Mactex H55.1 or equivalent)	m2	78,562		
7		Earth fill for roundabouts	m3	8,000		
SUM OF BILL No.4 - EARTHWORKS AND STABILISING MEASURESE (Price Excluding VAT)					SubTotal (1+2)	

PAVEMENTS

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
UNBOUND GRAVEL					SubTotal1	
Motorway						
1		Crushed stone (5-40mm) compacted base course up to to 98% of modified AASHTO density on roadway, h=(15+15)cm	m2	1,535		
2		Crushed stone fine material (0-31.5mm), 98% of modified Proctor AASHTO density, h=(10+15)cm	m2	1,790		
Interchange No.4 + (LR03 & LR03a & LR04)						
3		Crushed stone (5-40mm) compacted base course up to to 98% of modified AASHTO density on roadway, h=(10+10)cm - for local roads	m2	35,192		
4		Crushed stone (5-40mm) compacted base course up to to 98% of modified AASHTO density on roadway, h=(15+15)cm	m2	59,304		
5		Crushed stone fine material (0-31.5mm), 98% of modified Proctor AASHTO density, h=(10+15)cm	m2	12,730		
6		Crushed stone fine material (0-31.5mm) for motorway verges	m3	4,345		
BITUMINOUS BOUND BASE COURSE (incl. prime coat)					SubTotal2	
Motorway						
7		Thickness : 10 cm	m2	2,450		
Interchange No.4 + (LR03 & LR03a & LR04)						
8		Thickness : 10 cm	m2	43,954		
BITUMINOUS BOUND BINDER COURSE (incl. tack coat)					SubTotal3	
Motorway						
9		Thickness : 6 cm	m2	2,450		
Interchange No.4 + (LR03 & LR03a & LR04)						
10		Thickness : 6 cm	m2	43,396		
WEARING COURSE BITUMINOUS CONCRETE (incl. tack coat)					SubTotal4	
Motorway						
11		Thickness : 4 cm	m2	2,450		
Interchange No.4 + (LR03 & LR03a & LR04)						
12		Thickness : 4 cm	m2	43,050		
SUM OF BILL No.5 - PAVEMENTS (Price Excluding VAT)					SubTotal1 +2+3+4	

CURBS, FOOTWAYS AND PAVED AREAS

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
CONCRETE CURBING					SubTotal1	
1		Precast curb Type-3 (15x20cm) with concrete bedding and backing, 45degree edge at IC04	m	445		

		BLOCKWORK PAVING			SubTotal2	
2		6cm block at parking area sidewalk at IC04	m2	515		
SUM OF BILL No.6 - CURBS, FOOTWAYS AND PAVED AREAS (Price Excluding VAT)					SubTotal1 +2	

TRAFFIC SIGNS AND ROAD MARKINGS

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
TRAFFIC SIGNS					SubTotal1	
Directional and Informative Signs						
1		Informative panel 265x350cm, AI-C13	pcs.	6		
2		Informative panel 300x400cm, AI-C13	pcs.	2		
3		Informative panel 450x480cm, AI-C13	pcs.	2		
4		Yellow semicircular delineator 50x40cm AI for traffic islands	pcs.	12		
Warning and Regulatory Signs						
5		Circular Sign D=60cm, AI-C13 (for road cat. C and D)	pcs.	38		
6		Circular Sign D=90cm, AI-C13 (for road cat. A and B)	pcs.	26		
7		Triangular Sign A=90cm, AI-C13 (for road cat. C and D)	pcs.	4		
8		Triangular Sign A=120cm, AI-C13 (for road cat. A and B)	pcs.	10		
9		STOP sign D=60 cm AI-C12	pcs.	4		
10		Square Sign 90x90 cm AI-C13 (for pedestrian)	pcs.	29		
11		Arrow Sign 250(300)x70cm, AI-C13 (near motorway ramps diversion)	pcs.	2		
12		Arrow Sign 250x70cm AI-C13 (near interurban intersections)	pcs.	14		
13		Additional rectangular panel 240x90cm for arrow signs, AI-C13 (near motorway ramps diversion)	pcs.	2		
14		Additional rectangular panel 240x90cm for arrow signs, AI-C13 (at roundabouts)	pcs.	5		
15		Progressive distance signals of LxH 135x35cm, AI-C13 (near highway exits)	pcs.	6		
Steel Gantry						
16		Steel gantry system U-shape	pcs.	2		
ROAD MARKINGS					SubTotal2	
Painting Line Markings						
17		White thermoplastic road marking continuous line (Type A), width 25cm	m	2,285		
18		White thermoplastic road marking continuous line (Type A), width 15cm	m	8,026		
19		White thermoplastic road marking continuous line (Type A), width 12cm	m	715		

20		White thermoplastic road marking on central carriageway discontinues line (Type C_4.5x3) width 15cm (converted in continuous line)	m	1,280		
21		White thermoplastic road marking on central carriageway discontinues line (Type C_4.5x3) width 12cm (converted in continuous line)	m	9,635		
22		White thermoplastic road marking discontinues line (Type D_3x3) width 25cm (converted in continuous line)	m	480		
23		White thermoplastic road marking discontinues line (Type D_1x1) width 15cm (converted in continuous line)	m	25		
Painting of Marked Areas						
24		White bicomponent paint for traffic islands and zebra	m2	520		
Painting of Arrows or Lettering						
25		White bicomponent paint for straightway arrow (7.5m)	pcs.	62		
26		White bicomponent paint for left/right turn arrow (7.5m)	pcs.	12		
27		White bicomponent paint for straightway and left/right turn arrow (7.5m)	pcs.	6		
28		White bicomponent paint for fast left/right turn arrow	pcs.	6		
29		White bicomponent paint for road text/sign markings	m2	60		
Road Studs						
30		Aluminum 10x10cm Road Studs (Cat eyes) one direction, mounted in zebra areas	pcs.	60		
SUM OF BILL No.7 - TRAFFIC SIGNS AND ROAD MARKINGS (Price Excluding VAT)					SubTotal1 +2	

ELECTRICAL LIGHTING

No.	TS Code	Description	Unit	Quantity	Unit Price in €	Amount in €
DISMANTLING AND RELOCATION OF ELECTRIC POWER LINES						SubTotal1
1		Dismantling and relocation of medium/low voltage power line, included: - Dismantling and relocation of 8 concrete columns with different heights 8, 9, 10 dhe 12m, completed with all accessories (insulators, crossarms, collar - Dismantling and relocation of medium/low voltage power lines with length approximately L=0.42km - Transport, excavation, backfilling, concrete works for the base of the MV/LV concrete column, autocrane, stringing and restringing of conductor, earthing system, testing and commissioning of medium/low voltage power lines	L.S.	1		
ELECTRICAL LIGHTING OF INTERCHANGE NO.4						SubTotal2
2		S.I Incoming medium voltage switchboard of 24 kV, 20 kA-1s, 630 A, SF6	pcs.	1		
3		S.I Outgoing medium voltage switchboard of 24 kV, 20 kA-1s, 630 A, SF6	pcs.	1		
4		S.I Transformer protection medium voltage switchboard, with fuse protection 24 kV, 20 kA-1s, 630 A, SF6, with earth disconnector	pcs.	1		
5		S.I Power distribution transformer, Oil Immersed, Eco Design A0-Ak type, Sn = 100 kVA, Un=20/0.4 kV, +2x2.5%, Uk=4%, fn=50Hz for inside installation	pcs.	1		

6		S.I Prefabricated concrete electrical transformer station for MV / LV Voltage, which includes all accessories as: door, window, louver, fender protection, me dimensions (L4.18 x W2.98 x H2.83) m, light, switch, pipes, etc, according to OSHEE standards for this type of electric transformer stations	set	1		
7		S.I Medium voltage aluminium cable, XPLE type, S = 3x(1x240) mm ² , with copper shield S=25mm ²	m	800		
8		S.I Medium Voltage cable joints for cable section S=1x240mm ² , includes all accessories	cp	6		
9		Excavation of medium voltage cable route channel as detail	m3	576		
10		Backfilling with grain sand layer for medium voltage XLPE cables in the channel route as detail H=40cm	m3	96		
11		Concrete reinforcement in the cable route channel for protection of medium voltage cables as detail: H = 10 cm	m2	10		
12		Backfilling with existing materials for medium voltage XLPE cables in the channel route	m3	384		
13		S.I Medium voltage Signalling PVC band	m	800		
14		S.I Grounding protection network for Medium Voltage for power station room cabin, includes all accessories	set	1		
15		S.I NO7 cable, CU, green/yellow S=1x70mm ²	m	30		
16		S.I Low voltage single core copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 4x(1x70) mm ²	m	15		
17		S.I End terminal for Low Voltage cable for 1x70mm ² , includes all accessories	pcs.	10		
18		S.I Medium Voltage cable XLPE, AL, S=3x(1x70)mm ² , 20kV, Primary side connection of transformer	m	6		
19		S.I End terminal for 20 kV Medium Voltage cable, XLPE type, S = 1x70 mm ² , includes all accessories	pcs.	12		
20		Preparation of the area for installing the prefabricated cabin Medium Voltage/ Low Voltage (stabilizers filling, compression, concrete, etc.)	ton	3		
21		S.I Low voltage electrical panel, IP67, with door and includes all accessories, also metering to Low Voltage based on OSHEE entity, inside the electrical transformer station referred to single line diagram given on design	pcs.	1		
22		S.I High performance LED road luminaries, 201W, IP66, IK09, 27458 lm, 4000 K, CRI 70, 230V. Dimension (L.650 x W.360 x H60)mm, Ta-30+40°C life 80%: 80.000h (L80B20). Completed with electronic dimer driver, including pole mounting accessories. According to technical specification	pcs.	52		
23		S.I High performance LED road luminaries, 127W, IP66, IK09, 16892 lm, 4000 K, CRI 70, 230V. Dimension (L.650 x W.360 x H60)mm, Ta-30+40°C life 80%: 80.000h (L80B20). Completed with electronic dimer driver, including pole mounting accessories. According to technical specification	pcs.	64		
24		S.I LED protection device for luminaries related to atmospheric emissions and driver voltage accumulation	pcs.	110		
25		S.I Derivation box, aluminium type, dim. (L.130xW.59xH.44) mm, IP65, completed with fittings and insulating gel for storage of insulation	pcs.	110		
26		S.I Guain flexible electric pipe with double isolation Ø = 20 mm	m	324		
27		S.I FeZn metallic pipe Ø = 25 mm + accessories	m	220		

28		S.I Lighting poles H= 12.8 m (H1 = 12.0 m over ground, H2 = 0.8 m underground), which includes all accessories, 4 mm thickness, fixture shoulder L=2.0 m, galvanised, with terminal and fuse protection device	pcs.	52		
29		S.I Lighting poles H = 10.8 m (H1 = 10.0 m over ground, H2 = 0.8 m underground), which includes all accessories, 4 mm thickness, fixture arm shoulder L = 1.5 m, galvanised, with terminal and fuse protection device	pcs.	56		
30		S.I Lighting poles H = 10.8 m (H1 = 10.0 m over ground, H2 = 0.8 m underground), which includes all accessories, 4 mm thickness, fixture with four arm shoulder L = 1.5 m, galvanised, with terminal and fuse protection device	pcs.	2		
31		S.I Industrial LED luminaries, 58 W, 7274lm, 4000K, CRI80, IP65, IK08, with dimension (L.1593 x W.190 x H92) mm, 230V, Ta -40°C +55°C, with silicone rubber gasket. - Diffuser: In 5 mm thick, shock resistant, tempered glass - Painting: In polyester powder - Lifetime: 50.000h to 80% L80B20	pcs.	14		
32		S.I Concrete plinth for road lighting poles composed with concrete C20/25 + framework structure for lighting poles base	m3	94		
33		S.I Concrete manhole for lighting poles, with dim 50x50x80 cm, with cast iron covering heavy type	pcs.	110		
34		S.I Cable derivation joint, for cable minimum section S = 3x1.5 mm ² and maximum cable section S = 4x35 mm ² . composed with bicomponent for water isolation app. To be used in junction manholes for supplying the lighting poles. (Refer to DETAIL 3a)	pcs.	326		
35		S.I Corrugated PVC flexible Pipe with double isolation, heavy type, Ø = 100 mm	m	21,000		
36		S.I Rigid steel metallic conduit, for surface installation, Ø = 25 mm, completed with installation accessories (elbows, couplings, metal straps, metal expansion plug, screws etc.,)	m	200		
37		S.I Earthing electrode H=1.5 m, 50x50x5mm, galvanised for road light poles	pcs.	110		
38		S.I Earthing electrode H=2.0 m, 50x50x5mm, galvanised for grounding of electric lighting panel	pcs.	12		
39		S.I Bare copper conductor S=1x50 mm ²	m	4,900		
40		S.I External Earthing clamp, tape-electrode-conductor up to section S = 25 mm ²	pcs.	140		
41		S.I Low voltage single copper conductor, G16 rubber insulated, PVC sheathed, Un = 0,6/1kV, FG16R type, S = 1x16 mm ² , with yellow/green colour of outer sheath	m	220		
42		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1kV, FG16OR16 type, S = 4x25 mm ²	m	125		
43		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un=0,6/1kV, FG16OR16 type, S = 4x16 mm ²	m	1,400		
44		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 4 x 10 mm ²	m	2,400		
45		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 4x6 mm ²	ml	940		
46		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 4x4 mm ²	ml	900		

47		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 5x2.5 mm ²	m	150		
48		S.I Low voltage multicore copper cable, G16 rubber insulated, PVC sheathed, Un = 0,6/1 kV, FG16OR16 type, S = 3x2.5 mm ²	m	1,550		
49		S.I PVC flex conduit, heavy type, Ø = 25 mm, guaine	m	1,550		
50		S.I Low Voltage Road lighting distribution electrical panel, IP 66, with door and includes all accessories, and corpuscular relay with Electronic Control Panel point - to point, scenarios - BUS communication protocol	pcs.	2		
51		S.I PVC corrugated pipe with double isolation flexible Ø=200-300mm for fixing the light poles	m	154		
52		S.I Concrete slab for lighting poles and for manholes C20/25 type	m3	88		
53		S.I filling with grain sand layer for lighting poles in the concrete base, sand cover of pipes in the cable	m3	640		
54		Excavation of Low Voltage cable route channel as detail	m3	1,800		
55		Backfilling with existing materials for Low Voltage cables in the channel route	m3	830		
56		S.I Steel pipe, thickness 8.6 mm, for crossroad route with outer diameter Ø = 110 mm, painted with anticorrosive, (19.7kg for 1 m. Total. L = 140 m). Installation 0.5-1m depth.	kg	10,200		
57		S.I Concrete control electric manhole, with dim. 100x100x80 cm, with heavy-duty cast-iron cover	pcs.	19		
58		S.I Low voltage signalling PVC band	m	5,765		
59		Preparation and approval related to all technical documentation for the point of connection of electricity to OSHEE.	set	1		
SUM OF BILL No.8 - ELECTRICAL LIGHTING (Price Excluding VAT)					SubTotal (1+2)	
B. NYJA NE KM 2+710 DHE RRUGET LIDHESE ME AUTOSTRADEN SUBTOTAL (B) = <i>(BILL 1 ÷ BILL 8) PA TVSH</i>						

SUBTOTAL (A ÷ B):	
Contingencies and Risks 5% :	
SUBTOTAL INCLUDING 5%:	
VAT at 20% :	
GRAND TOTAL (including Contingencies 5% and VAT 20%) EURO	

GRAND TOTAL (including Contingencies 5% and VAT 20%) LEK	
Kursi valutor i këmbimit është marrë nga Banka e Shqipërisë 1Euro = 93.67lek, Përditësimi i fundit: 20.07.2026 12:23:21	