

4.3 Siwarak Bridge

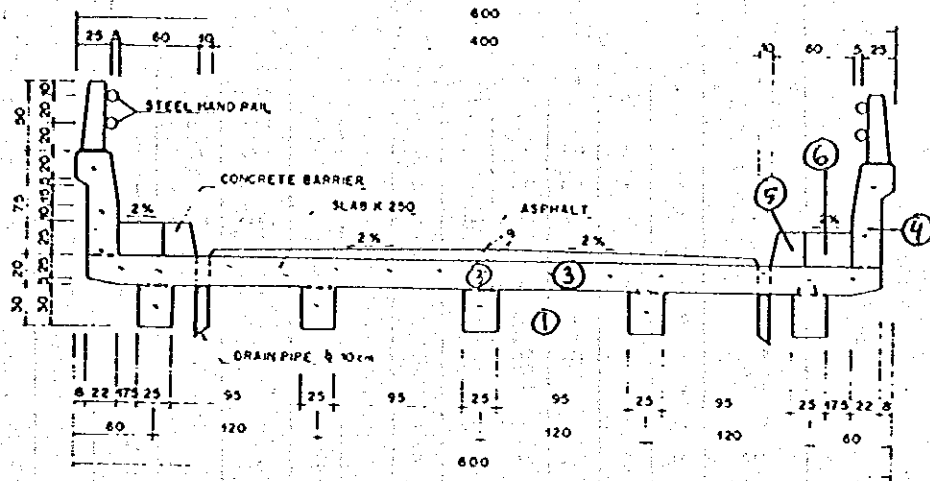
Summary

NO	DISCRIPTION	UNIT	QUANTITY
I	UPPER STRUCTURE		
1	Concrete type B including form work	m ³	10.38
2	Concrete type C1 for side walk	m ³	1.02
3	Reinforcing Steel	Kg	2,372.00
4	Asphalt Concrete	Ton	3.74
5	Expansion Joint	m	12.00
6	Hand rail	m	11.60
7	PVC drain Pipe dia 100 mm	m	2.40
8	Elastomeric Bearing pad 350 x 280 x 24	nos	10.00
II	SUB STRUCTURE		
1	Structure Excavation	m ³	221.00
2	Backfill With Sandy Soil	m ³	111.00
3	Embankment	m ³	60.00
4	Concrete Type C1 for Base and Approach Slab	m ³	21.00
5	Reinforcing Steel	Kg	1,310.00
6	Wet Stone masonry	m ³	187.00
7	Web Hole dia 50 mm L 2.00 m	nos	36.00
8	Cement Mortar under Bearing	m ³	0.05
III	APPROACH ROAD		
1	Concrete type C1 for Transition Side Walk and Guide Post	m ³	2.30
2	Reinforcing Steel	Kg	205.00
3	Stripping of top soil	m ³	135.00
4	Embankment	m ³	354.00
5	Subgrade	m ³	187.50
6	Aggregate Clas A	m ³	40.70
7	Penetrasion Macadam t1 = 10 Cm	m ²	125.00
8	Aspalt Hot mix t = 5 Cm	m ²	125.00
9	Wet Stone Masonry	m ³	226.00
10	Cobble Stone	m ³	38.00
IV	PROTECTION FOR RIVER BAD		
1	Gabion mattress	m ³	30.00

VOLUME CALCULATION OF SIWARAK BRIDGE

I UPER STRUCTURE

1. Concrete type B including form work



a. Beam and Diaphragm

1. Beam :

$$0.25 \times 0.30 \times 5.80 = 0.435 \text{ m}^3$$

$$\text{Number of Beam} = 5$$

$$\text{Volume of beam} = 2.175 \text{ m}^3$$

2. Diaphragm

$$0.15 \times 0.2 \times 1.20 = 0.036 \text{ m}^3$$

$$\text{Number of Diaphragm} = 12$$

$$\text{Volume of beam} = 0.432 \text{ m}^3$$

b. Slab and Curb

3. Slab :

$$0.20 \times 5.84 \times 5.80 = 6.7744 \text{ m}^3$$

4. Curb/hand rail

$$0.22 \times 0.50 + 0.25 \times 0.25 = 0.1725 \text{ m}^3$$

$$\text{Number of Curb} = 2$$

$$\text{Volume of Curb} = 0.345 \text{ m}^3$$

5. Concrete Barrier

$$0.225 \times 0.25 \times 5.8 \times 2 = 0.6525 \text{ m}^3$$

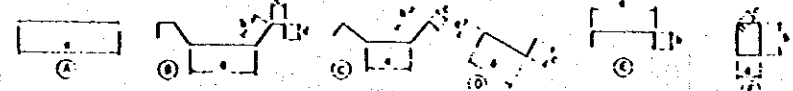
$$\text{Total Concrete type B} = 10.3789 \text{ m}^3$$

2. Concrete type C1 for side walk

$$0.25 \times 0.35 \times 5.8 \times 2 = 1.02 \text{ m}^3$$

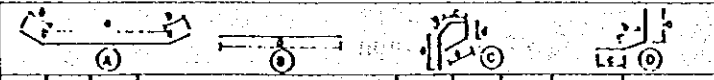
3. Reinforcing Steel

LIST REINFORCING BAR OF GIRDER AND DIAPHRAGM



REINFORCING BAR NO.	Ø (mm)	TYPE	BENDING DIMENSION (cm)						TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	NUMBER	WEIGHT (kg)	REMARKS
			a	b	c	d	e	f					
01	019	A	572	—	—	—	—	—	572	225	2x5	128	
02	019	B	446	53.75	20	38	—	—	6493	2230	2x5	148	
03	019	B	412	53.75	37	38	—	—	6493	2230	1x5	75	
04	019	B	372	48.09	37	38	—	—	6362	2230	1x5	75	
05	019	B	330	53.75	74	38	—	—	6493	2230	1x5	75	
06	019	B	282	53.75	101	38	—	—	6493	2230	1x5	75	
07	019	C	226	53.75	20	—	—	—	3755	2230	1x5	42	
08	019	C	54	53.75	20	—	—	—	3015	2230	1x5	34	
09	019	D	20	53.75	30	—	—	—	10375	2230	2x5	23	
010	019	E	572	38	—	—	—	—	6480	2230	2x5	45	
011	019	A	572	—	—	—	—	—	5720	2230	2x5	128	
012	013	F	19	42	8	—	—	—	1320	1040	37x5	254	
0F1	013	A	495	—	—	—	—	—	495	104	8x3	93	
0F	010	F	8	14	3	—	—	—	052	0617	39x3	38	
TOTAL											13131		

LIST OF REINFORCING BAR OF SLAB



NO	Ø (mm)	TYPE	BENDING DIMENSION (cm)						TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	NUMBER	WEIGHT (kg)	REMARK
			a	b	c	d	e	f					
31	013	A	340	19	—	—	—	—	678	104	39	234	
32	013	B	576	—	—	—	—	—	576	104	39	234	
33	013	B	870	—	—	—	—	—	570	104	30	178	
34	013	B	570	—	—	—	—	—	570	104	30	178	
35	013	C	50	38	19	14	25	—	146	104	39	39	
36	013	D	84	19	20	—	—	—	123	104	39	50	
37	013	B	570	—	—	—	—	—	570	104	18	107	
TOTAL											1040 kg		

a. Reinforcing steel for Beam and Diaphragm

1,332.00 Kg

b. Reinforcing steel for Slab and curb =

1,040.00 Kg

Total Volume = 2,372.00 Kg

4. Asphalt Concrete

$$(0.05+0.09) / 2 \times 4 \times 5.8 =$$

3.7352 Ton

5. Expansion Joint

$$2 \times 6 =$$

12 m

6. Hand Rail

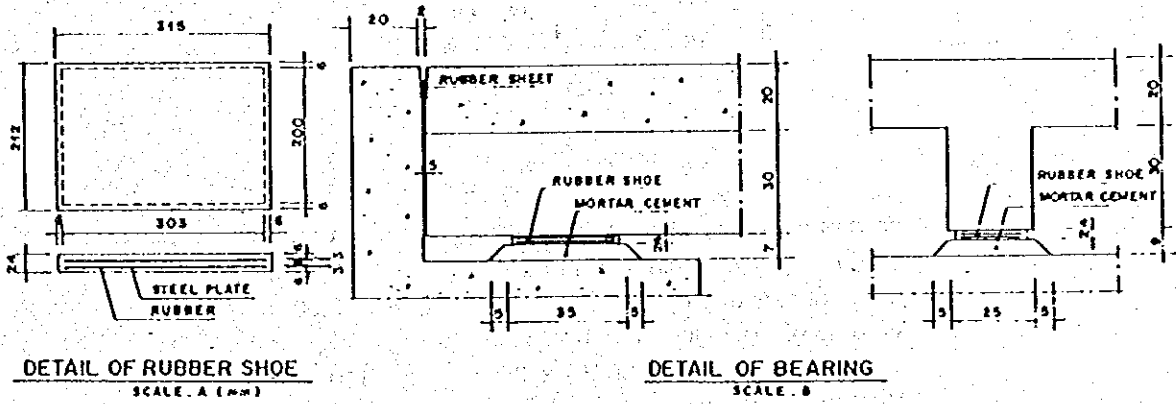
$$5.8 \times 2.0 =$$

11.6 m

7. PVC drain Pipe Dia 100 mm

$$4 \times 0.6 =$$

2.4 m



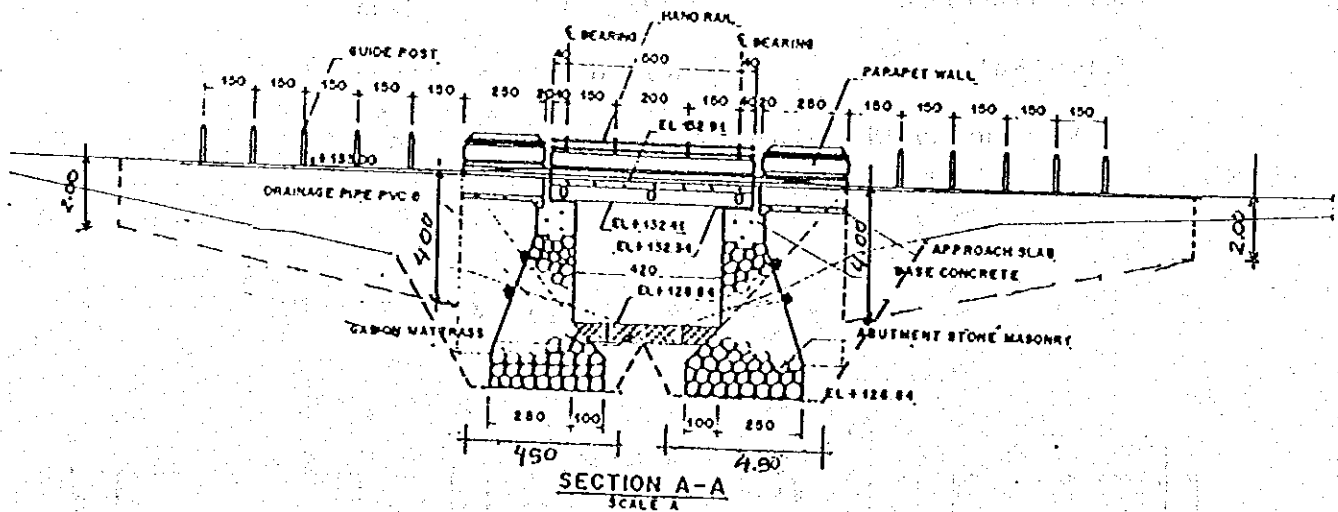
8. Elastomeric Bearing Pad 350 x 280 x 24

$$2 \times 5 =$$

10 nos

II SUB STRUCTURE

1. Structural Excavation



area of base excavation	$4.50 \times 7.00 =$	31.50 m^2
area of top excavation	$7 \times 11.00 =$	77.00 m^2
deep of excavation	average	$= 3.50 \text{ m}$
Volume of excavation with $h = 3$	$(31.5 + 77.00) / 2 \times 3 =$	110.25 m^3
Number of Abutmen	$=$	2.00
Total	$=$	220.50 m^3

2. Backfill with sandy soil

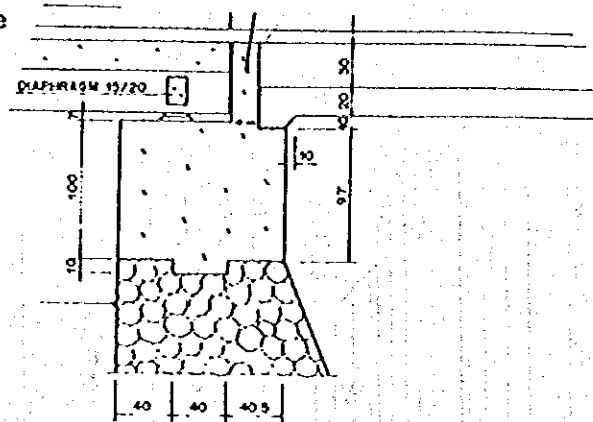
volume of excavation	$=$	110.25 m^3
Volume of abutmen on excavation	$=$	$(3.5 \times 1 \times 6) + (3.5 + 2) / 2 \times 1 \times 6 + (2 + 1.8) / 2 \times 1 =$
	$=$	54.75 m^3
Volume Backfill with sandy soil	$110.25 - 54.75 =$	55.50 m^3
number of abutment	$=$	2
Total	$=$	111 m^3

3. Embankment

Embankment back abutment	$=$	
$2.5 \times 4.00 \times 3 \times 2$	$=$	60

4. Concrete type C 1 Including Formwork and scaffolding

a. Base Concrete



$$\begin{aligned}
 1). & 0.40 \times 0.10 \times 6.00 = 0.24 \text{ m}^3 \\
 2). & 1.205 \times 1.00 \times 6.00 = 7.23 \text{ m}^3 \\
 3). & 0.20 \times 0.57 \times 6.00 = 0.684 \text{ m}^3 \\
 & \text{total} = 8.154 \text{ m}^3 \\
 \text{Number of base concrete} & = 2 \\
 \text{Total volume} & = 16.308 \text{ m}^3
 \end{aligned}$$

b. Approach Slab

$$\begin{aligned}
 & (0.20 + 0.30) / 2 \times 0.1 \times 4.50 \\
 & + 2.50 \times 0.2 \times 4.50 = 2.363 \text{ m}^3 \\
 \text{Number of Approach Slab} & = 2 \\
 \text{Total Volume} & = 4.725 \text{ m}^3 \\
 \text{Total a + b} & = 21.033
 \end{aligned}$$

c. Reinforcing Steel

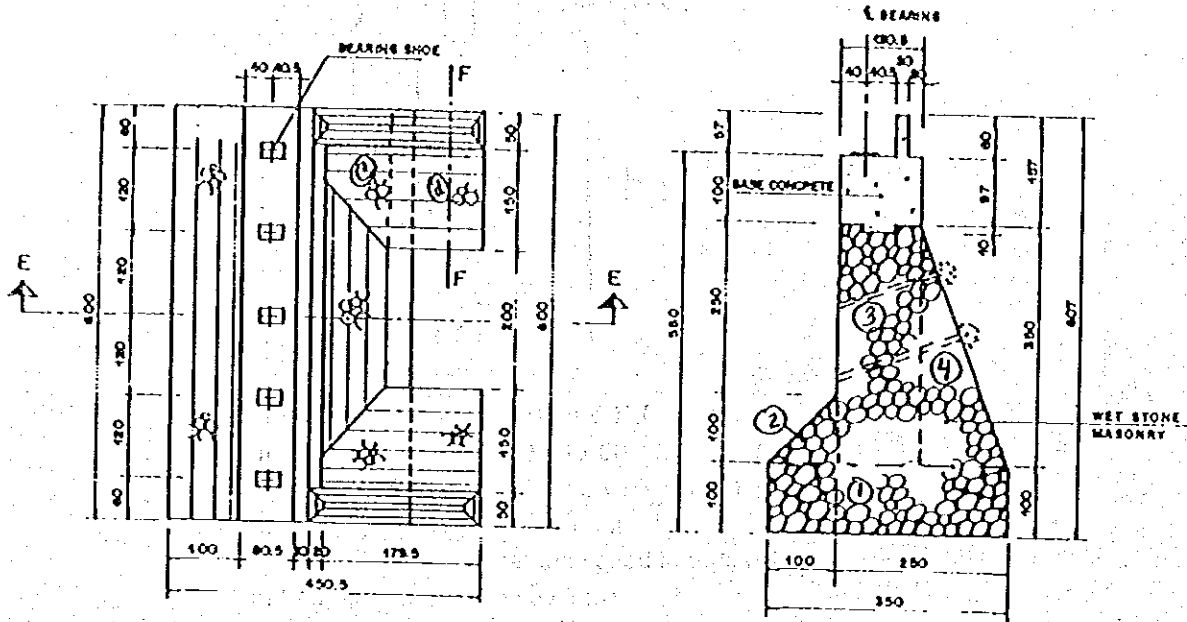
LIST OF REINFORCING BAR OF BASE CONCRETE AND APPROACH SLAB

NO	Ø (mm)	TYPE	BENDING DIMENSION (cm)						TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	NUMBER	WEIGHT	REMARK
			a	b	c	d	e	f					
BC ₁	D13	A	112	32	90	88	40	4,23	1.04	31	136		
BC ₂	D13	B	102	32	5			1,44	1.04	31	46		
BC ₃	D13	C	100	14	74			1,68	1.04	31	61		
BC ₄	D13	D	590					5,90	1.04	5	51		
BC ₅	D13	E	590	90				7,70	1.04	4	32		
BC ₆	D13	D	590					5,90	1.04	3	18		
BC ₇	D13	D	590					5,90	1.04	2	12		
BC ₈	D13	D	590					5,90	1.04	6	48		
AP ₁	D13	D	240					2,40	1.04	23	57		
AP ₂	D13	F	240	22	12	25		2,99	1.04	23	72		
AP ₃	D13	E	440	22				4,44	1.04	28	141		
TOTAL = 658 kg													

$$\text{Base Concrete and Slab} = 1,310.00 \text{ m}^3$$

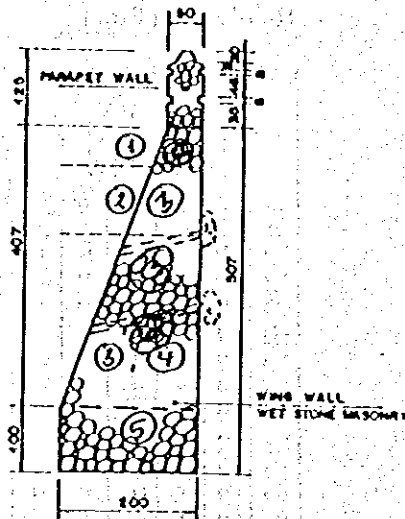
5. Wet Stone Masonry

a). Abutment



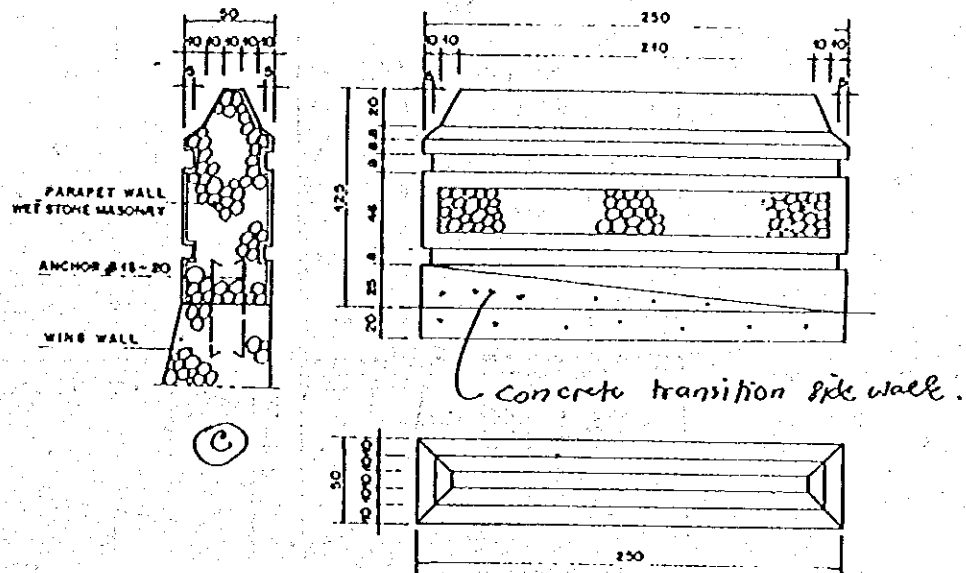
1).	$3.50 \times 1.00 \times 6.00$	=	21.00	m^3
2).	$0.5 \times 1.0 \times 1.0 \times 6.0$	=	3.00	m^3
3).	$1.205 \times 3.50 \times 6.00$	=	25.31	m^3
4).	$0.5 \times 1.295 \times 3.50 \times 6.0$	=	13.60	m^3
	Total	=	62.90	m^3

b). Wing wall



a).	$(0.5+0.75)/2 \times 0.6 \times 2.5 \times 2 =$	1.80	m^3	
b).	$(0.75+1.1)/2 \times 1.0 \times 2.4 \times 2 =$	4.44	m^3	
c).	$(1.1+2)/2 \times 2.5 \times 0.895/2 \times 2 =$	3.47	m^3	
d).	$(1.1+2)/2 \times 2.5 \times 1.505 \times 2 =$	11.66	m^3	
e).	$2 \times 1.0 \times 1.505 \times 2 =$	6.02	m^3	
	Total	=	27.39	m^3

c). Parapet wall



DETAIL OF PARAPET WALL
SCALE: C

$$0.50 \times 1.25 \times 2.5 \times 2 = 3.125 \text{ m}^3$$

$$\text{stone masonry} = 93.42 \text{ m}^3$$

$$\text{Number of abutment} = 2$$

$$\text{Total Stone Masonry} = 186.84 \text{ m}^3$$

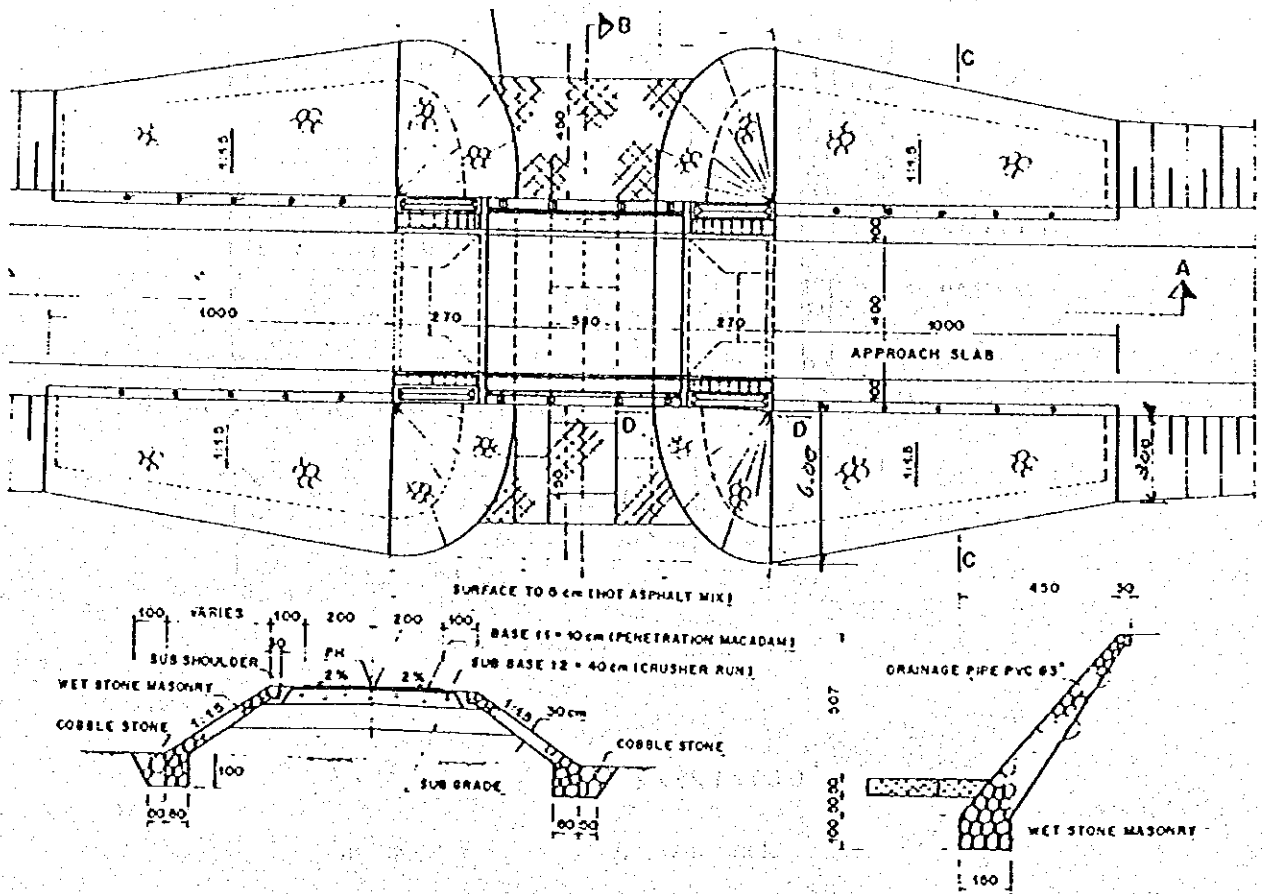
6. Web hole, dia 50 mm L = 2.00 m

$$6.00 \times 3.00 \times 2.00 = 36.00 \text{ m}$$

7. Cement Mortar under bearing

$$0.056 \times 0.35 \times 0.25 \times 5 \times 2 = 0.049 \text{ m}^3$$

III APPROACH ROAD
Approach Road Both Back of bridge (10 m)



1. Concrete type C1

a. Concrete type C1 for transition Side Walk

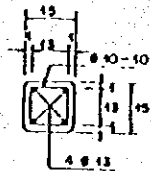
$$(0.50 \times 0.60 \times 2.70) / 2 \times 4 = 1.62 \text{ m}^3$$

b. Concrete type C1 for Guide Post

$$0.15 \times 0.15 \times 1.45 \times 20 = 0.65 \text{ m}^3$$

2. Reinforcing Steel

205.00 kg



LIST OF REINFORCING BAR FOR GUIDE POST

NO	Ø (mm)	TYPE	LENGTH (m)	UNIT (Kg/m)	NUMBER	TOTAL WEIGHT (Kg)	REMARKS
GP1	18	A	1.35	1.04	4 x 20	412.32	—
GP2	10	B	0.48	0.617	13 x 20	93	□
TOTAL						505 Kg	

3. Stripping of top Soil

$$(15+12)/2 \times 10 \times 2 \times 0.5 = 135.00 \text{ m}^3$$

4. Embankment

$$(5.2 + 13)/2 \times 3 + (5.2+11)/2 \times 1 \times 10/2 \times 2 = 354.00 \text{ m}^3$$

5. Sub grade t3 = 100 Cm

$$7.5 \times 1 \times 12.5 \times 2 = 187.5 \text{ m}^3$$

6. Aggregate Clas A t2 = 40.00 Cm

$$4.4 \times 0.4 \times 2 \times 10 = 35.20 \text{ m}^3$$

$$5.0 \times 0.2 \times 2 \times 2.5 = 5.50 \text{ m}^3$$

$$\text{Total} = 40.70 \text{ m}^3$$

7. Penetrasion Macadam t1 = 10.00 Cm

$$5.0 \times 12.5 \times 2 = 125.00 \text{ m}^2$$

8. Asphalt Hot Mix to = 5.00 Cm

$$5.0 \times 12.5 \times 2 = 125.00 \text{ m}^2$$

9. Wet Stone Masonry for slope protection

$$\text{a). } (1.5 + 1)/2 \times 1 \times 6 \times 2 \times 2 = 30 \text{ m}^3$$

$$((1.5+0.30)/2 \times 6.5 + (1+0.30)/2 \times 6)$$

$$\times 0.50 \times 3.00 \times 2 \times 2 = 58.5 \text{ m}^3$$

$$\text{b). } (1.00 + 0.6)/2 \times 10 \times 2 \times 2 = 32.00 \text{ m}^3$$

$$\text{c). } ((1.0 + 0.30)/2 \times 6 + (0.60+0.30)/2 \times 3)$$

$$0.50 \times 10.00 \times 2 \times 2 = 105.00 \text{ m}^3$$

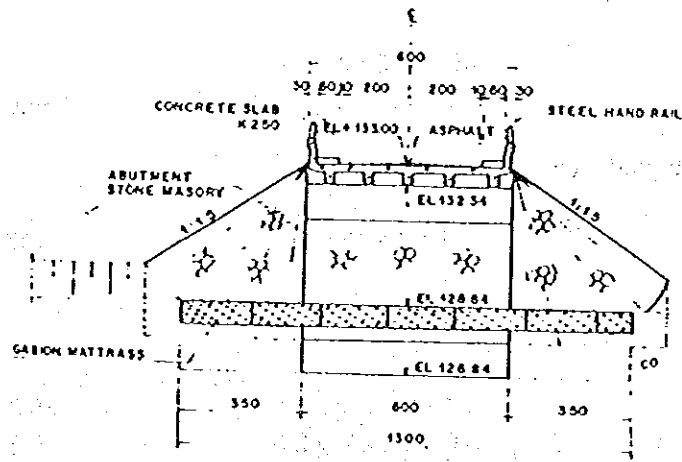
$$\text{Total} = 225.50 \text{ m}^3$$

10. Coble stone

$$(0.5+1.0)/2 \times 12.5 \times 2 \times 2 = 37.50 \text{ m}^3$$

IV PROTECTION FOR RIVER BAD

1. Gabion Matrass



$$\begin{array}{rcl}
 4.00 \times 0.50 \times 13.00 & = & 26.00 \text{ m}^3 \\
 3.5 \times 1.0/2 \times 0.5 \times 4 & = & 3.5 \text{ m}^3 \\
 \hline
 & & 29.50 \text{ m}^3
 \end{array}$$

Chapter 5
BUILDINGS

5.1 Dam Management Complex

1. Administration Building

NO.	ITEM OF WORK	QTY.	
	I EXCAVATION, FILLING & GRADING WORK		
1	Earth cut	249.06	m3
2	Earth fill (old)	102.80	m3
3	Earth fill (new)	125.13	m3
4	Sand fill	29.10	m3
5	Sand fill under foundation	18.65	m3
	II FOUNDATION WORK		
1	Dry stone masonry	35.88	m3
2	Stone masonry 1 : 3 : 10	68.64	m3
3	Brick block 1 : 3 : 10	5.23	m3
	III REINFORCEMENT CONCRETE WORK		
1	Concrete K-225	129.39	m3
2	Steel bar	4,299.65	Kg
3	Steel bar (D 16)	17,119.70	Kg
4	Reinforcement concrete for gutter	1.21	m3
5	Concrete coaster supported	272.40	m2
6	Light concrete	20.37	m3
	IV ROOFING WORK		
1	Steel truss	3,277.29	m3
2	Steel Purlin	2,560.01	m3
3	Timber rafter & timber batten	699.96	m2
4	Gutter timber batten	15.45	m2
5	Facing timber batten	63.00	m2
6	Plywood roof cover	699.96	m2
7	Asphalt sheet roof cover	699.96	m2
8	Colorbond metal sheet	32.00	m
9	Ceramic roof tile	699.96	m
10	Ceramic ridge tile	68.20	m
	V CONCRETE BLOCK WORK & BRICKWORK		
1	Brick wall 1 : 3	9.99	m3
2	Brick wall 1 : 3 : 10	131.23	m3
	VI PLASTER WORK		
1	Mortar plaster 1 : 3	166.44	m2
2	Mortar plaster 1 : 3 : 10	1,184.76	m2
3	Concrete plastering 1 : 2	389.04	m2
4	Expose plastering // column H= 800 & base	57.70	m2
5	Terra-cotta	77.31	m2
	VII DOORS & WINDOWS WORK		
1	Aluminum frame	514.16	m
2	Aluminum window frame	230.50	m2
3	Aluminum door frame	174.90	m
4	Aluminum sliding window frame	73.60	m
5	Door keys for toilet door	13.00	pc
6	Door handle for aluminum door	24.00	pr
7	Door keys for aluminum door	16.00	pc
8	Espagnolette	10.00	pr
9	Door hinges (125 mm) // al. door	38.00	pr
10	Door hinge (125 mm) // wood door	20.00	pr
11	Al - louver	25.71	m3
12	Shaft door (Fr steel plate)	0.95	m2
13	Double teakwood w/ ventilation door	19.75	m2
14	Door stopper	24.00	pc
	VIII GLAZING WORK		
1	Float glass 5 mm (natural color)	112.32	m2
2	Sandblasting glass // lobby	8.07	m2
3	Mirror in toilet	2.38	m2

NO.	ITEM OF WORK	QTY.	
IX INTERIOR FINISHING			
1	Waterproof gypsum board 10 mm + wood frame	601.12	m2
2	Wood cornice // ceiling	123.30	m
3	Gypsum cornice for ceiling	448.80	m
4	Lumbersering skirting // wall base	99.27	m2
5	Lumbersering skirting // ceiling	151.68	m2
6	Wood cornice // lumbersering ceiling	123.30	m
7	Stainless steel hand railing	25.80	m
8	Stainless steel railing + 10 mm float glass	17.60	m
9	Wood profile for lumbersering skirting	110.30	m
10	Aluminum border for urinoir	2.40	m2
11	Ventilation hole 200 x 200	138.00	pc
12	Ventilation hole D=1000 + steel frame	3.00	pc
X TILE WORK			
1	Ceramic tile 300 x 300	549.75	m2
2	Stair nosing ceramic tile	62.50	m
3	Ceramic tile 300 x 300 (textured, non-slip)	26.60	m2
4	Ceramic tile 200 x 200	131.99	m2
5	Ceramic tile 200 x 200 (textured, non-slip)	41.12	m2
6	Float glass H=100 mm, rayband (for wall base)	235.88	m
XI SANITARY WORK			
1	Water supply installation (PVC pipe D=19 mm)	64.00	m
2	Waste water installation (PVC pipe D = 110 mm)	42.00	m
3	PVC gutter (1/2 x D 110 mm)	40.00	m
4	Urinoir	8.00	pc
5	Hand zinc (washtafel)	6.00	pc
6	Soap case	6.00	pc
7	Closet	6.00	pc
8	Washable	1.00	pc
9	Floor drain	8.00	pc
10	Septictank	1.00	unit
11	Water stop valve	1.00	pc
12	Bath tub (watertank)	6.00	pc
12	Kitchen table (reinforcement concrete 100 Kg/M3)	0.45	m3
XII ELECTRICAL WORK			
1	Installation & lighting 40W-1 FL	23.00	pc
2	Installation & lighting 40W-2 FL	52.00	pc
3	Installation & lighting 20W-1 FL	9.00	pc
4	Installation & lighting 15W-2 FL	-	pc
5	Installation & lighting 15W-1 FL	12.00	pc
6	Air Condition (1000 Kcal)	2.00	pc
7	Fuse	43.00	pc
8	NFB 3P 400A	1.00	pc
9	NFB 3P 200A	1.00	pc
10	NFB 3P 100A	1.00	pc
11	Lighting switch (single)	7.00	pc
12	Lighting switch (double)	28.00	pc
13	Outlet socket switch	41.00	pc
14	Outlet socket installation	41.00	pc
15	Lightning protector	3.00	pc
16	Outlet socket & Installation for AC	2.00	pc
17	Main Distribution Panel	1.00	pc
18	Distribution Panel	2.00	pc
19	New installation from PLN (22,000 VA)	1.00	pc
XIII PAINTING WORK			
1	Wall painting	1,826.33	m2
2	Wood painting	198.20	m2
3	Ceiling polytur	151.68	m2
4	Steel protection painting	853.14	m
5	Ceiling painting	605.12	m2

NO.	ITEM OF WORK	QTY.
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XIV	FURNITURE	
1	Meeting room table	1.00 Unit
2	Meeting room chair	12.00 Unit
3	Office table	50.00 Unit
4	Filing cabinet	25.00 Unit
5	Compute table	4.00 Unit
6	Dining table	1.00 Unit
7	Portable stove	1.00 Unit
8	Kitchen set	1.00 Unit
9	Front office table + 2 chair	1.00 Unit
10	Sofa	4.00 Unit

2. Staff House 1 (Guest House)

NO	ITEM OF WORK	QTY.	
I	<u>EXCAVATION, FILLING & GRADING WORK</u>		
1	Earth cut	77.68	m3
2	Earth fill (old)	35.03	m3
3	Earth fill (new)	18.02	m3
4	Sand fill	8.19	m3
5	Sand fill under foundation	8.10	m3
II	<u>FOUNDATION WORK</u>		
1	Dry stone masonry	15.31	m3
2	Stone masonry 1 : 3 : 10	30.62	m3
3	Brick bloc 1 : 3 : 10	2.09	m3
III	<u>REINFORCEMENT CONCRETE WORK</u>		
1	Concrete K-225	8.02	m3
2	Steel bar	1,364.89	Kg
3	Steel bar (D 16)	-	Kg
4	Light concrete	5.73	m3
IV	<u>ROOFING WORK</u>		
1	Steel truss	1,396.80	m3
2	Steel Purlin	1,161.01	m3
3	Timber rafter & timber batten	255.75	m2
4	Gutter timber batten	24.30	m2
5	Facing timber batten	15.75	m2
6	Plywood roof cover	255.75	m2
7	Asphalt sheet roof cover	255.75	m2
8	Colorbond metal sheet	16.00	m
9	Ceramic roof tile	255.75	m
10	Ceramic ridge tile	49.00	m
V	<u>CONCRETE BLOCK WORK & BRICKWORK</u>		
1	Brick wall 1 : 3	3.21	m3
2	Brick wall 1 : 3 : 10	15.41	m3
VI	<u>PLASTER WORK</u>		
1	Mortar plaster 1 : 3	53.55	m2
2	Mortar plaster 1 : 3 : 10	256.85	m2
3	Concrete plastering 1 : 2	33.11	m2
4	Terra-cotta	37.60	m2
VII	<u>DOORS & WINDOWS WORK</u>		
1	Aluminum frame	133.10	m
2	Aluminum window frame	61.00	m2
3	Aluminum door frame	11.40	m
4	Aluminum sliding-window frame	17.40	m
5	Door keys for alumni door	1.00	pc
6	Espagnolette	1.00	pr
7	Door hinge (125 mm)	9.00	pr
8	Window hinge (75 mm)	-	pr
9	Al - louver	6.84	m2
10	Door stopper	2.00	pc
VIII	<u>GLAZING WORK</u>		
1	Float glass 5 mm (natural color)	18.46	m2
IX	<u>INTERIOR FINISHING</u>		
1	Waterproof gypsum ceiling 12 mm + wood frame	62.46	m2
2	Fiber ceiling 6 mm + wood frame	54.60	m2
3	Wood cornice	28.70	m
4	Gypsum cornice	73.60	m
5	Wood lumbersering ceiling + wood frame	21.90	m

NO.	ITEM OF WORK	QTY.	
X	TILE WORK		
1	Ceramic tile 300 x 300	63.50	m2
2	Ceramic tile 300 x 300 (textured, non-slip)	27.25	m2
3	Ceramic tile 200 x 200	35.62	m2
4	Ceramic tile 200 x 200 (textured, non-slip)	6.40	m2
5	Float glass H=100 mm, rayband (for wall base)	39.00	m
XI	SANITARY WORK		
1	Water supply installation (PVC pipe D=19 mm)	35.00	m
2	Waste water installation (PVC pipe D = 110 mm)	8.00	m
3	Closet	2.00	pc
4	Washbak	1.00	pc
5	Floor drain	2.00	pc
6	Septictank	2.00	unit
7	Water stop valve	5.00	pc
8	Bath tub (watertank)	2.00	pc
9	Kitchen table (reinforcement concrete 100 Kg/M3)	0.36	m3
XII	ELECTRICAL WORK		
1	Installation & lighting 40W-1 FL	8.00	pc
2	Installation & lighting 40W-2 FL	14.00	pc
3	Installation & lighting 20W-1 FL	-	pc
4	Installation & lighting 15W-2 FL	-	pc
5	Installation & lighting 15W-1 FL	6.00	pc
6	Air Condition (2 000 Kcal)	-	pc
7	Fuse	3.00	pc
8	Lighting switch (single)	2.00	pc
9	Lighting switch (double)	5.00	pc
10	Outlet socket switch	7.00	pc
11	Outlet socket Installation	7.00	pc
12	Lightning protector	-	pc
13	Outlet socket & Installation for AC	-	pc
14	Fuse box	1.00	pc
15	New installation from PLN for 3,500 VA	1.00	pc
XIII	PAINTING WORK		
1	Wall painting	310.41	m2
2	Wood painting	51.90	m2
3	Wood polytur for lumbersering ceiling	34.90	m2
4	Steel protection painting	367.90	m
5	Ceiling painting	62.46	m2
XIV	FURNITURE		
1	Garden chair	4.00	Unit
2	Dining table	1.00	Unit
3	Bed room set	2.00	Unit
4	Portable stove	1.00	Unit
5	Kitchen set	1.00	Unit
6	Sofa	1.00	Unit

3. Staff House 2

NO.	ITEM OF WORK	QTY.	
I EXCAVATION, FILLING & GRADING WORK			
1	Earth cut	51.30	m3
2	Earth fill (old)	23.19	m3
3	Earth fill (new)	27.30	m3
4	Sand fill	5.46	m3
5	Sand fill under foundation	5.20	m3
II FOUNDATION WORK			
1	Dry stone masonry	10.23	m3
2	Stone masonry 1 : 3 : 10	20.46	m3
3	Brick block 1 : 3 : 10	1.40	m3
III REINFORCEMENT CONCRETE WORK			
1	Concrete K-225	4.56	m3
2	Steel bar	894.23	Kg
3	Steel bar (D 16)	-	Kg
4	Light concrete	3.82	m3
IV ROOFING WORK			
1	Steel truss	618.60	m3
2	Steel Purlin	418.73	m3
3	Timber rafter & timber batten	148.50	m2
4	Gutter timber batten	22.80	m2
5	Facing timber batten	12.60	m2
6	Plywood roof cover	148.50	m2
7	Asphalt sheet roof cover	148.50	m2
8	Colorbond metal sheet	13.00	m
9	Ceramic roof tile	148.50	m
10	Ceramic ridge tile	50.00	m
V CONCRETE BLOCK WORK & BRICKWORK			
1	Brick wall 1 : 3	2.66	m3
2	Brick wall 1 : 3 : 10	15.23	m3
VI PLASTER WORK			
1	Mortar plaster 1 : 3	47.16	m2
2	Mortar plaster 1 : 3 : 10	253.79	m2
3	Concrete plastering 1 : 2	16.17	m2
4	Terra-cotta	25.40	m2
VII DOORS & WINDOWS WORK			
1	Aluminum frame	52.85	m
2	Teak plywood panel	8.21	m2
3	Aluminum door frame	19.50	m
4	Aluminum sliding-window frame	12.20	m
5	Door keys for aluminum door	3.00	pc
6	Espagnolette	-	pr
7	Door hinges (125 mm)	9.00	pr
8	Window hinge (75 mm)	1.00	pr
9	Al - louver	-	m3
10	Door stopper	-	pc
VIII GLAZING WORK			
1	Float glass 5 mm (natural color)	8.69	m2
IX INTERIOR FINISHING			
1	Fiber cement 6 mm + wood frame	81.30	m2
2	Wood cornice	131.10	m
3	Stainless steel hand rail	-	m
4	Stainless steel railing	-	m

NO.	ITEM OF WORK	QTY.
X	TILE WORK	
1	Ceramic tile 300 x 300	42.75 m2
2	Ceramic tile 300 x 300 (textured, non-slip)	15.00 m2
3	Ceramic tile 200 x 200	15.13 m2
4	Ceramic tile 200 x 200 (textured, non-slip)	1.54 m2
5	Floot glass H=100 mm, rayband (for wall base)	43.70 m
XI	SANITARY WORK	
1	Water supply installation (PVC pipe D=19 mm)	2.50 m
2	Waste water installation (PVC pipe D = 110 mm)	11.00 m
3	Closet	1.00 pc
4	Washbak	1.00 pc
5	Floor drain	1.00 pc
6	Septictank	1.00 unit
7	Water stop valve	4.00 pc
8	Bath tub (watertank)	1.00 pc
9	Kitchen table (reinforcement concrete 100 Kg/M3)	0.12 m3
XII	ELECTRICAL WORK	
1	Installation & lighting 40W-1 FL	3.00 pc
2	Installation & lighting 40W-2 FL	4.00 pc
3	Installation & lighting 20W-1 FL	1.00 pc
4	Installation & lighting 15W-2 FL	4.00 pc
5	Installation & lighting 15W-1 FL	3.00 pc
6	Fuse	2.00 PC
7	Lighting switch (single)	2.00 pc
8	Lighting switch (double)	4.00 pc
9	Outlet socket switch	5.00 pc
10	Outlet socket installation	5.00 pc
11	Fuse box	1.00 pc
12	New installation from PLN for 450 VA	1.00 pc
XIII	PAINTING WORK	
1	Wall painting	81.30 m2
2	Wood painting	42.00 m2
3	Wood polytur	17.85 m2
4	Steel protection painting	157.08 m
5	Ceiling painting	81.30 m2
XIV	FURNITURE	
1	Dining table	1.00 Unit
2	Double bed set	2.00 Unit
3	Portable stove	1.00 Unit
4	Kitchen set	1.00 Unit
5	Sofa	1.00 Unit

4. Mushola

NO.	ITEM OF WORK	QTY.	
I	<u>EXCAVATION, FILLING & GRADING WORK</u>		
1	Earth cut	64.43	m3
2	Earth fill (old)	28.05	m3
3	Earth fill (new)	22.70	m3
4	Sand fill	8.10	m3
5	Sand fill under foundation	6.68	m3
II	<u>FOUNDATION WORK</u>		
1	Dry stone masonry	12.21	m3
2	Stone masonry 1 : 3 : 10	34.32	m3
3	Brick bloc 1 : 3 : 10	2.09	m3
III	<u>REINFORCEMENT CONCRETE WORK</u>		
1	Concrete K-225	7.72	m3
2	Steel bar	1,554.06	Kg
3	Steel bar (D 16)	-	Kg
4	Light concrete	5.67	m3
IV	<u>ROOFING WORK</u>		
1	Steel truss	496.89	m3
2	Steel Purfin	554.30	m3
3	Timber rafter & timber batten	172.80	m2
4	Gutter timber batten	12.24	m2
5	Facing timber batten	14.40	m2
6	Plywood roof cover	172.80	m2
7	Asphalt sheet roof cover	172.80	m2
8	Colorbond metal sheet	-	m
9	Ceramic roof tile	172.80	m
10	Ceramic ridge tile	40.80	m
V	<u>CONCRETE BLOCK WORK & BRICKWORK</u>		
1	Brick wall 1 : 3	5.52	m3
2	Brick wall 1 : 3 : 10	18.35	m3
VI	<u>PLASTER WORK</u>		
1	Mortar plaster 1 : 3	61.32	m2
2	Mortar plaster 1 : 3 : 10	305.90	m2
3	Concrete plastering 1 : 2	84.54	m2
4	Terra-cotta	46.76	m2
VII	<u>DOORS & WINDOWS WORK</u>		
1	Aluminum frame	87.90	m
2	Aluminum rolling door	-	m2
3	Aluminum door frame	11.80	m
4	Aluminum sliding-window frame	-	m
5	Door keys for aluminum door	2.00	pc
6	Espagnolette	2.00	pr
7	Door hinge (125 mm)	12.00	pr
8	Window hinge (75 mm)	-	pr
9	Al - louver	2.04	m3
10	Door stopper	4.00	pc
VIII	<u>GLAZING WORK</u>		
1	Float glass 5 mm (natural color)	10.01	m2
IX	<u>INTERIOR FINISHING</u>		
1	Fiber cement 6 mm + wood frame	104.40	m2
2	Wood cornice	168.00	m
3	Stainless steel hand rail	-	m
4	Stainless steel railing	-	m

NO.	ITEM OF WORK	QTY.	
X	TILE WORK		
1	Ceramic tile 300 x 300	70.80	m2
2	Ceramic tile 300 x 300 (textured, non-slip)	10.40	m2
3	Ceramic tile 200 x 200	49.59	m2
4	Ceramic tile 200 x 200 (textured, non-slip)	15.10	m2
5	Float glass H=100 mm, rayband (for wall base)	19.50	m
XI	SANITARY WORK		
1	Water supply installation (PVC pipe D=19 mm)	56.00	m
2	Waste water installation (PVC pipe D = 110 mm)	12.00	m
3	Closet	2.00	pc
4	Washbak	-	pc
5	Floor drain	8.00	pc
6	Septictank	1.00	unit
7	Water stop valve	16.00	pc
8	Bath tub (watertank)	2.00	pc
9	Kitchen table (reinforcement concrete 100 Kg/M3)	-	m3
XII	ELECTRICAL WORK		
1	Installation & lighting 40W-1 FL	11.00	pc
2	Installation & lighting 40W-2 FL	-	pc
3	Installation & lighting 20W-1 FL	5.00	pc
4	Installation & lighting 15W-2 FL	-	pc
5	Installation & lighting 15W-1 FL	4.00	pc
6	Air Condition (2 000 KCAL)	-	pc
7	Fuse	2.00	pc
8	Lighting switch (single)	2.00	pc
9	Lighting switch (double)	5.00	pc
10	Outlet socket switch	5.00	pc
11	Outlet socket installation	5.00	pc
12	Lightning protector	-	pc
13	Outlet socket & installation for AC	-	pc
14	Fuse box	1.00	pc
15	New installation from PLN for 3,500 VA	1.00	pc
XIII	PAINTING WORK		
1	Wall painting	367.22	m2
2	Wood painting	48.00	m2
3	Wood polytur	8.28	m2
4	Steel protection painting	139.53	m
5	Ceiling painting	146.40	m2

5. External Work

NO.	ITEM OF WORK	QTY.	
I. <u>TEMPORARY WORK</u>			
1	Uitzet and Bouwplank	657.00	m2
2	Water & electricity for work	1.00	Ls
3	Administration & documentation	1.00	Ls
II. <u>EXCAVATION, FILLING & GRADING WORK</u>			
1	Earth cut	57.74	m3
2	Earth fill	4.03	m3
3	Sand fill	158.46	m3
III. <u>FOUNDATION WORK</u>			
1	Dry stone masonry	172.40	m3
2	Brick block 1 : 3 : 10	27.24	m3
3	Stone masonry 1 : 3 : 10	167.90	m3
IV. <u>FENCE WORK</u>			
1	Mortar plaster 1 : 3	107.71	m2
2	Ceramic tile (non slip)	37.99	m2
3	Wall painting	42.89	m
V. <u>SANITARY WORK</u>			
1	Drainage U-300	810.91	m
2	Precast RC	5.21	m3
3	Deepwell	1.00	unit
4	Drainage box	36.00	pc
VI. <u>ELECTRICAL WORK</u>			
1	Lighting switch	1.00	pc
2	Fuse	1.00	pc
3	General Lighting Installation	14.00	pc
4	General Lighting 36W-2 + Pole	14.00	pc
5	Fuse box	1.00	pc
6	New installation from PLN for 1,300 VA	1.00	pc
VII. <u>LANDSCAPING</u>			
1	Paving Kansteen (paving border)	497.38	m
2	Gravel	2.50	m3
3	Paving Block	951.90	m2
4	Asphalt Sheet	300.00	m2
5	Plantation	2,609.33	m2

5.2 Hydropower Station Complex

1. Hydropower Station Building

NO.	ITEM OF WORK	QTY.	
I EXCAVATION, FILLING & GRADING WORK			
1	Earth cut	10.52	m3
2	Earth fill (old)	6.31	m3
3	Earth fill (new)	8.24	m3
4	Sand fill	2.28	m3
5	Sand fill under foundation	0.88	m3
II FOUNDATION WORK			
1	Dry stone masonry	1.31	m3
2	Stone masonry 1 : 3 : 10	7.61	m3
3	Brick block 1 : 3 : 10	5.43	m3
III REINFORCEMENT CONCRETE WORK			
1	Concrete K-250	217.13	m3
2	Steel bar	21,679.11	kg
3	Steel bar (D 16 & D 25)	24,457.63	kg
4	Scaffolding	253.75	m2
5	Plain concrete	0.31	m3
IV ROOFING WORK			
1	Steel truss	580.60	kg
2	Steel Purlin	4,516.58	kg
3	Facing plate I	62.00	m2
4	Facing plate II	29.00	m2
5	Sandwich layer & steel roof	449.50	m2
6	Capping	31.00	m
7	Polycarbonat framé	238.09	kg
8	Polycarbonat roof sheet	27.75	m2
9	Aluminum capping	14.40	m
10	Asphalt-sheet Water proofing 5 mm	310.23	m2
V CONCRETE BLOCK WORK & BRICKWORK			
1	Brick wall 1 : 3	7.15	m3
2	Brick wall 1 : 3 : 10	67.96	m3
VI PLASTER WORK			
1	Mortar plaster 1 : 3	118.55	m2
2	Mortar plaster 1 : 3 : 10	1,132.70	m2
3	Concrete plastering 1 : 2	1,786.84	m2
4	Granito tile for entrance wall	11.52	m2
5	Terra-cotta	131.65	m2
VII DOORS & WINDOWS WORK			
1	Aluminum frame	362.05	m
2	Aluminum window frame	67.40	m
3	Aluminum door frame	45.00	m
4	Steel frame f/ teakwood door	52.00	m
5	Door keys for toilet door	1.00	pc
6	Door handle for enterance door	2.00	pr
7	Door handle for aluminum door	12.00	pr
8	Door keys for aluminum door	12.00	pc
9	Espagnolette	3.00	pr
10	Door hinge (125 mm)	23.00	pr
11	Aluminum louver	19.71	m2
12	Teakwood panel	24.64	m2
13	Aluminum panel	17.01	m2
14	Louvre f/ ventilation door	0.20	m2
15	Mirror stainless steel sheet (t = 1.2 mm)	3.84	m2
16	Aluminum rolling shutter (motorize)	25.20	m2
17	Door closer	6.00	pc
18	Door stopper	12.00	pc

NO.	ITEM OF WORK	QTY.	
VIII INTERIOR FINISHING			
1	Waterproof gypsum board 9 mm + wood frame	153.63	m2
2	Gypsumboard panel	20.65	m2
3	Gypsum cornice for ceiling	114.20	m
4	Access floor	43.69	m2
5	Aluminum spandrel // ceiling	38.96	m2
6	Aluminum frame // partition	79.55	m
7	Ventilation hole D= 600 + steel frame	20.00	pc
IX TILE WORK			
1	Ceramic tile 300 x 300	119.35	m2
2	Stairs nosing ceramic tile	65.80	m
3	Ceramic tile 300 x 300 (textured, non-slip)	21.90	m2
4	Ceramic tile 200 x 200	32.67	m2
5	Ceramic tile 200 x 200 (textured, non-slip)	3.16	m2
6	Float glass H=100 mm, rayband (for wall base)	56.55	m
X SANITARY WORK			
1	Water supply installation (PVC pipe D=19 mm)	50.00	m
2	Waste water installation (PVC pipe D = 110 mm)	18.00	m
3	PVC gutter (1/2 x D 110 mm)	33.00	m
4	PVC gutter (D 110 mm)	129.00	m
5	Hand zinc (washtafel)	2.00	pc
6	Soap case	1.00	pc
7	Closet	1.00	pc
8	Washbak	1.00	pc
9	Roof drain	10.00	pc
10	Floor drain	1.00	pc
11	Septictank	1.00	unit
12	Water stop valve	6.00	pc
13	Bath tub (watertank)	1.00	pc
14	Kitchen table (reinforcement concrete 100 Kg/M3)	0.31	m3
XI ELECTRICAL WORK			
1	Lightning Spit	5.00	pc
2	Ground cable D = 12 mm	103.00	pc
3	Lightning protection equipment	2.00	pc
4	Grounding box	2.00	pc
5	T-Dos	110.00	pc
6	Switch	20.00	pc
7	Wall switch	5.00	pc
8	PVC Pipe D=1.25	904.00	pc
9	Main Panel	1.00	pc
10	Distr. Panel	1.00	pc
11	Outlet Socket 200 W	21.00	pc
12	Outlet Socket 400 W	20.00	pc
13	Outlet Socket 1000 W	5.00	pc
14	FL 2x40 W	24.00	pc
15	FL 1x40 W	29.00	pc
16	FL 1x20 W	28.00	pc
17	H 1x300 W	10.00	pc
18	H 1x400 W	2.00	pc
19	FNB 100 A	1.00	pc
20	FNB 63 A	1.00	pc
21	NCB 32 A	1.00	pc
22	NCB 16 A	5.00	pc
23	NCB 6 A	8.00	pc
24	Grounding Cable D=6 mm	38.00	m
25	Cable NYY 4 x 16 mm	40.00	m
26	Cable NYM 3 x 4 mm	289.60	m
27	Cable NYM 3 x 2.5 mm	671.25	m
28	Cable NYM 2 x 2.5 mm	695.94	m
29	Room Air Conditioner 1 PK	4.00	unit
30	Air Blower (inhouse) 0.5 PK	16.00	unit
31	Emergency lamp 20 W	10.00	unit
32	PABX (20 output line)	1.00	unit
33	Telephon outlet switch	14.00	pc
34	Telephone cable + installation	280.00	m

NO.	ITEM OF WORK	QTY.
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XII GLAZING WORK

1	Float glass 5 mm (natural color)	82.38 m2
2	Float glass 5 mm (cloudy glass)	2.88 m2
3	Mirror in toilet	0.72 m2

XIII PAINING WORK

1	Wall painting	2,713.69 m2
2	Wood polytur	24.64 m2
3	Steel painting	325.80 m2
4	Gypsum cornice painting	114.20 m2
5	Ceiling painting	192.59 m2

XIV STEEL WORK

1	Maintenance Stair	331.09 Kg
2	I - beam / runaway rail	6,750.00 Kg
3	Runway rail	2,246.04 Kg
4	Bracket, holding plates, bolt, nut, etc	810.00 Kg

XV MISCELLANEOUS WORK

1	Stainless steel - air duct head	1.00 Unit
2	Stainless steel cover entrance column	6.24 m2
3	Stainless steel hand railing	27.35 m

XVI FURNITURE

1	Meeting room table	1.00 Unit
2	Meeting room chair	6.00 Unit
3	Office table	9.00 Unit
4	Filing cabinet	6.00 Unit
5	Computer table	9.00 Unit
6	Locker cabinet	1.00 Unit
7	Dining table	1.00 Unit
8	Portable stove	1.00 Unit
9	Hot & Cold Dispenser	1.00 Unit
10	Kitchen set	1.00 Unit
11	Office chair	9.00 Unit
12	Sofa	1.00 Unit

2. Guard House

NO.	ITEM OF WORK	QTY.	
I EXCAVATION, FILLING & GRADING WORK			
1	Earth cut	22.68	m3
2	Earth fill (old)	12.20	m3
3	Sand fill	3.03	m3
4	Sand fill under foundation	2.52	m3
II FOUNDATION WORK			
1	Dry stone masonry	3.67	m3
2	Stone masonry 1 : 3 : 10	7.35	m3
3	Brick masonry 1 : 3 : 10	2.20	m3
III REINFORCEMENT CONCRETE WORK			
1	Concrete K-250	8.28	m3
2	Steel bar	1,074.38	Kg
3	Scaffolding	30.25	m2
4	Light concrete	2.12	m3
IV CONCRETE BLOCK WORK & BRICKWORK			
1	Brick wall 1 : 3	1.08	m3
2	Brick wall 1 : 3 : 10	3.58	m3
V PLASTER WORK			
1	Mortar plaster 1 : 3	22.40	m2
2	Mortar plaster 1 : 3 : 10	36.64	m2
3	Concrete plastering 1 : 2	5.58	m2
4	Terra-cotta	11.70	m2
VI DOORS & WINDOWS WORK			
1	Aluminum frame	33.70	m
2	Teak plywood panel	5.34	m2
3	Aluminum door frame	12.10	m
4	Aluminum sliding-window frame	28.80	m
5	Door keys for aluminum door	2.00	pc
6	Door hinge (125 mm)	2.00	pr
7	Ventilation hole	15.00	pr
8	Aluminum louver	0.48	m2
9	Door stopper	1.00	pc
VII GLAZING WORK			
1	Float glass 5 mm (natural color)	6.24	m2
VIII INTERIOR FINISHING			
1	Fiber cement 6 mm + wood frame	12.25	m2
2	Wood cornice	15.90	m
IX TILE WORK			
1	Ceramic tile 300 x 300	10.05	m2
2	Ceramic tile 300 x 300 (textured, non-slip)	18.00	m2
3	Ceramic tile 200 x 200	8.79	m2
4	Ceramic tile 200 x 200 (textured, non-slip)	1.54	m2
5	Float glass H=100 mm, rayband (for wall base)	9.40	m
X SANITARY WORK			
1	Water supply installation (PVC pipe D=19 mm)	24.80	m
2	Waste water installation (PVC pipe D = 110 mm)	23.00	m
3	Closet	1.00	pcs
4	Floor drain	1.00	pc
5	Roof drain	4.00	pc
6	Septictank	1.00	unit
7	Water stop valve	2.00	pc
8	Bath tub (watertank)	1.00	pc

NO.	ITEM OF WORK	QTY.	
XI ELECTRICAL WORK			
1	T-Dos	12.00	pc
2	Double switch	2.00	pc
3	PVC Pipe D=1.25	10.00	m
4	Distr. Panel	1.00	pc
5	Outlet Socket 200 W	1.00	pc
6	Wall switch	1.00	pc
7	FL 2x40 W	1.00	pc
8	FL 1x15 W	5.00	pc
9	NCB 10 A	1.00	pc
10	NCB 6 A	2.00	pc
11	Grounding Cable D=12 mm	8.00	m
12	Cable NYY 3 x 16 mm	62.50	m
13	Cable NYM 3 x 2.5 mm	23.00	m
14	Cable NYM 2 x 2.5 mm	10.00	m
XII PAINTING WORK			
1	Wall painting	123.40	m2
2	Wood polytur	6.60	m2
3	Ceiling painting	12.25	m2
XIII FURNITURE			
1	Table	1.00	Unit
2	Chair	3.00	Unit
3	Sofa	1.00	Unit

3. Garage

NO.	ITEM OF WORK	QTY.	
I EXCAVATION, FILLING & GRADING WORK			
1	Earth cut	101.36	m3
2	Earth fill (old)	76.26	m3
3	Sand fill	21.67	m3
II FOUNDATION WORK			
1	Dry stone masonry	4.40	m3
2	Stone masonry 1 : 3 : 10	22.72	m3
3	Concrete K-250	1.92	m3
3	Steel bar	511.12	Kg
4	Brick masonry 1 : 3 : 10	6.40	m3
III REINFORCEMENT CONCRETE WORK			
1	Concrete K-250	17.96	m3
2	Steel bar	2,378.42	Kg
3	Steel bar (// concrete floor)	650.34	Kg
4	Steel bar (D 16 & D 25)	2,037.70	Kg
5	Scaffoldings	16.20	m2
6	Light concrete	23.00	m3
IV ROOFING WORK			
1	Steel Purlin	764.90	Kg
2	Facing plate I	42.00	m2
3	Facing plate II	13.00	m2
4	Steel roof	136.50	m2
5	Asphalt-sheet Water proofing 5 mm	13.50	m
V CONCRETE BLOCK WORK & BRICKWORK			
1	Brick wall 1 : 3	1.36	m3
2	Brick wall 1 : 3 : 10	9.84	m3

VI PLASTER WORK		
1	Mortar plaster 1 : 3	136.88 m2
2	Mortar plaster 1 : 3 : 10	163.56 m2
3	Concrete plastering 1 : 2	195.31 m2
4	Ventilation hole	7.00 pcs
5	Terra-cotta	17.40 m2
VII DOORS & WINDOWS WORK		
1	Aluminum frame	37.00 m
2	Steel frame	55.22 kg
3	Steel plate 0.5 mm	129.81 kg
4	Steel door frame	48.61 kg
5	Door keys for steel door	2.00 pc
6	Espagnolette	1.00 pr
7	Door hinge (125 mm)	9.00 pr
VIII GLAZING WORK		
1	Float glass 5 mm (natural color)	4.84 m2
X FLOOR WORK		
1	Concrete floor plastering	233.70 m2
2	Water resistant painting H = 100 ff/wall base	31.80 m
IX SANITARY WORK		
1	Water supply installation (PVC pipe D=19 mm)	50.00 m
2	Waste water installation (PVC pipe D = 110 mm)	26.75 m
3	Roof drain	5.00 pc
4	Water stop valve	3.00 pc

NO.	ITEM OF WORK	QTY.
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X ELECTRICAL WORK		
1	T-Dos	20.00 pc
2	Double switch	3.00 pc
3	PVC Pipe D=1.25	12.00 pc
4	Distr. Panel	1.00 pc
5	Outlet Socket 200 W	2.00 pc
6	FL 2x40 W	2.00 pc
7	FL 1x40 W	3.00 pc
8	NCB 2 A	2.00 pc
9	NCB 6 A	1.00 pc
10	Grounding Cable D=6 mm	38.00 m
11	Cable NYY 3 x 16 mm	40.00 m
12	Cable NYM 3 x 2.5 mm	85.05 m
13	Cable NYM 2 x 2.5 mm	22.00 m
XI PAINTING WORK		
1	Wall painting	358.64 m2
2	Door painting	20.51 m2
3	Steel protection painting	77.28 m2

4. External Woks

NO.	ITEM OF WORK	QTY.	
I. <u>TEMPORARY WORK</u>			
1	Uitzet and Bouwplank	192.25	m2
2	Water & electricity for work	1.00	Ls
3	Administration & documentation	1.00	L
II. <u>EXCAVATION, FILLING & GRADING WORK</u>			
1	Earth cut	9.02	m3
2	Earth fill	17.94	m3
3	Sand fill	7.20	m3
III. <u>FOUNDATION WORK</u>			
1	Light concrete	0.14	m3
2	Brick block 1 : 3 : 10	4.44	m3
3	Mortar plaster 1 : 3	9.90	m2
4	Wall painting	9.90	m
IV. <u>FENCE WORK</u>			
1	Fence gate	8.60	m
2	Fence	11.30	m
V. <u>SANITARY WORK</u>			
1	Drainage U-300	218.50	m
2	Drainage O-300	20.00	m
3	Drainage box	16.00	pc
4	Stainless steel Water tank 2000 lt.	1.00	unit
5	Concrete for drainage O-300	0.67	m3
6	Concrete tower for watertank	3.45	m3
7	Steel bar	1766.90	kg
8	Mortar plastering 1 : 2	62.97	m2
9	Wall painting	62.97	m2
VI. <u>ELECTRICAL WORK</u>			
1	T-Dos	15.00	pc
2	FL 2x40 W + pole	12.00	pc
3	Cable NYY 3 x 2.5 mm	260.00	m
VII. <u>LANDSCAPING</u>			
1	Paving Kansteen (paving border)	150.50	m
2	Gravel	2.99	m3
3	Plantation	944.49	m2

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