

ABSTRACT OF COST - SH 14

NAME OF WORK :- DPR for Construction of Flood Wall & Road Culvert at left side bank ZONE N-III, Nanded.

29.01.2007

ITEM	Description of Item	Quantity	Rate	Unit	Amount	Reference
					PWD DSR-2006-07	
1.00	Excavation for foundation in earth, soils of all types, sand, Gravel and soft murum, including removing the excavated material to a distance of 50 m. beyond the building area stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering (including shoring and strutting) etc. complete. (Lift upto 1.50 Metre).	1,149.00 CUM	48.30	CUM	Rs 55,497.00	I.No-1 P.No-7
2.00	Excavation for foundation In hard murum and boulders upto 0.3 cum. to 0.20 cum. size including shoring and strutting as necessary and disposing off excavated stuff as directed excluding dewatering if separately provided etc. complete as directed by Engineer in charge	213.00 CUM	155.05	CUM	Rs 33,026.00	Item no- 753, P-270
3.00	Providing and filling with approved Sand, shingle below raft including watering, compaction etc. complete as directed by Engineer in charge.	248.00 CUM	252.35	CUM	Rs 62,583.00	Item no- 759, P-271
4.00	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm. to 20 cm. thick including hand packing and compacting complete	190.00 CUM	236.10	CUM	Rs 44,859.00	Item no-17 P.No-10
5.00	Providing selected hard murum filling including laying in layers of 15 cm. to 20 cm. thick layers including watering and compacting etc. complete as directed by Engineer in charge	83.00 CUM	174.75	CUM	Rs 14,504.00	Item no-737 P.No-266
6.00	Providing and laying in situ cement concrete 1:4:8 proportion with trap/ granite/ quartzite/ gneiss metal in foundation including necessary compacting and curing including formwork if required etc. complete as directed by Engineer in charge. (3.40 Bags/ Cum).	83.00 CUM	1,611.25	CUM	Rs 133,734.00	I.No-732 P.No-265
7.00	Providing and laying in situ cement concrete M-20 of trap/ granite/ quartzite/ gneiss metal for reinforced cement concrete work in foundation like raft, grillage strip foundation and footings of reinforced cement concrete columns and steel stanchion including bailing out water, form work, compaction and finishing, curing etc. complete. (Excluding steel reinforcement and structural steel)	231.00 CUM	2,747.40	CUM	Rs 634,649.00	I.No-46 P.No- 19
8.00	Providing and laying in situ controlled reinforced cement concrete of M-20 for cut off walls, Walls (of any thickness) including form work, scaffolding, compaction, by vibrating, finishing, curing etc. complete as directed by Engineer in charge. (7.60 bags/ Cum.)	188.00 CUM	3,252.45	CUM	Rs 611,461.00	I.No-764 P.No-273

ITEM	Description of Item	Quantity	Rate	Unit	Amount	Reference
9.00	Providing and laying HYSD bars with cement polymer composite coating (CPCC) anticorrosive epoxy treatment for reinforcement for structure including cutting,bending hooking by machine,trying in position including binding wire, spacers, chairs,cover blocks as per detailed drawing including all leads and lifts etc. complete.	35.38 MT	40,143.60	MT	Rs 1,420,281.00	I.No-803 P.No-283
10.00	Providing earth work for embankment with approved materials obtained by excavation from departmental land or other sources including all lifts and leads upto 50 m, laying in layers of 20 cm. to 30 cm. thickness breaking clods, dressing to the required lines, curves, grade and section, watering and Compaction with power roller etc. complete as directed by Engineer in charge.	742.00 CUM	36.75	CUM	Rs 27,269.00	I.No-655 P.No-232
11.00	Add for providing richer mixes respectively at all level. (I) Providing M-30 grade RCC instead of M-20 or 1: 1½ :3 or grade RCC.	419.00 CUM	457.30	CUM	Rs 191,609.00	A.R. No-15 attached
12.00	Providing uncoursed rubble trap/ granite/ quartzite/ gneiss stone masonry in cement mortar 1:5 for piers, abutments, wings, returns, headwalls, parapet etc. including striking joints of the non exposed faces and pointing the exposed faces with cement mortar (1:3) including scaffolding and curing masonry complete (including bailing out of water) as directed by Engineer in charge.	59.00	Rs 1,012.50	CUM	Rs 59,738.00	I.No-734 P.No-265
13.00	Providing & Laying in position, jointing In line, level as directed reinforced cement concrete pipes of class and diameter . (a) NP-2 type I.S. 456-2000 (for Light traffic road upto MDR stated) (i) 600mm Diametre	400.00	Rs 1,184.25	Per Rg. M.	Rs 473,700.00	A.R. No-15 attached
GRAND TOTAL					Rs 3,762,910.00	

DETAILS OF MEASUREMENT - SH 14

**NAME OF WORK :- DPR for Construction of Flood Wall & Road Culvert at left side bank ZONE N-III,
29.01.2007**

I. No.	Item in Brief	No.	Length Meter	Breadth Meter	Height Meter	Contents CUM	unit
	<u>For road crossing =10 Nos.</u> <u>Flood RCC wall along with Road =250m</u>						
1.00	Excavation for foundation including shoring and strutting as necessary and disposing off excavated stuff as directed In earth, soils of all type sand, gravel, soft murum etc. complete (excluding dewatering if separately provided etc. complete) as directed by Engineer in charge for depth-of-1.5m.						
	<u>For road crossing =10 Nos.</u> Road width Taken=20metre	10.00	20.00	2.00	1.65	660.00	cum
	<u>Flood RCC wall along with Road =250m</u> for long. (Section "A"). for long... Flood wall 0.30m thick (1.10m depth for soil+0.50m for muram).....foundation	1.00	250.00	1.70	1.15	488.75	cum
						TOTAL	1148.75 cum
						SAY	1149.00 cum
2.00	Excavation for foundation In hard murum and boulders upto 0.3 cum. to 0.20 cum. size including shoring and strutting as necessary and disposing off excavated st						
	<u>Flood RCC wall along with Road =250m</u> for long... Flood wall 0.30m thick	1.00	250.00	1.70	0.50	212.50	cum
						TOTAL	212.50 cum
						SAY	213.00 cum
3.00	Providing and filling with approved Sand, shingle below raft including watering, compaction etc. ..						
	<u>Under floorbelow the base0.30m thick sand filling over ground</u> <u>For road crossing =10 Nos.</u> Road width Taken=20metre	10.00	20.00	2.00	0.30	120.00	cum
	<u>Flood RCC wall along with Road =250m</u> for long... Flood wall 0.30m thick	1.00	250.00	1.70	0.30	127.50	cum
						TOTAL	247.50 cum
						SAY	248.00 cum
4.00	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm. to 20 cm. thick including hand packing and compacting						
	<u>Under floorbelow the base0.30m thick sand filling over ground</u> <u>For road crossing =10 Nos.</u> Road width Taken=20metre	10.00	20.00	2.00	0.23	92.00	cum

I. No.	Item in Brief	No.	Length	Breadth	Height	Contents	unit
	<u>Excavation for foundation including shoring and strutting as necessary and disposing off excavated stuff as directed In earth, soils of all type sand, gravel, soft murum etc. complete (excluding dewatering if separately provided etc. complete) as directed by Engineer in charge for depth-of-1.5m.</u>						
	for long... Flood wall 0.30m thick	1.00	250.00	1.70	0.23	0.00 cum 97.75 cum	
					TOTAL	189.75 cum	
					SAY	<u>190.00 cum</u>	
5.00	Providing selected hard murum filling including laying in layers of 15 cm. to 20 cm. thick layers including watering and compacting etc. <u>Under floor ...below the base ...0.10m thick muram filling/ grouting for stone soling</u>						
	Road width Taken=20metre <u>for long... Flood wall 0.30m thick</u>	10.00	20.00	2.00	0.10	40.00 cum 0.00 cum	
	for long... Flood wall 0.30m thick	1.00	250.00	1.70	0.10	42.50 cum	
					TOTAL	82.50 cum	
					SAY	<u>83.00 cum</u>	
6.00	Providing and laying in situ cement concrete in 1:5:10 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, form work, compacting, <u>For road crossing =10 Nos.</u>						
	Road width Taken=20metre <u>Flood RCC wall along with Road =250m</u>	10.00	20.00	2.00	0.10	40.00 cum 0.00 cum	
	for long... Flood wall 0.30m thick	1.00	250.00	1.70	0.10	42.50 cum	
					TOTAL	82.50 cum	
					SAY	<u>83.00 cum</u>	
7.00	Providing and laying in situ cement concrete M-20 of trap/ granite/ quartzite/ gneiss metal for reinforced cement concrete work in foundation like raft, grillages, strip foundation and footings of reinforced cement' concrete columns <u>For road crossing =10 Nos.</u>						
	Road width Taken=20metre <u>Flood RCC wall along with Road =250m</u>	10.00	19.80	2.00	0.30	118.80 cum 0.00 cum	
	for long... Flood wall 0.30m thick	1.00	250.00	1.50	0.30	112.50 cum	
					TOTAL	231.30 cum	
					SAY	<u>231.00 cum</u>	
8.00	Providing and laying in situ controlled reinforced cement concrete of M-20 for cut off walls, Walls (of any thickness) including form work, scaffolding, compaction, by vibrating, finishing, curing etc. complete as directed by Engineer in charge. (7.60 bags/ Cum.) <u>Flood RCC wall along with Road =250m</u>						
	for long... Flood wall 0.30m thick	1.00	250.00	0.30	Avg. Ht. 2.50	187.50 cum	
					TOTAL	187.50 cum	

I. No.	Item in Brief	No.	Length	Breadth	Height	Contents	unit
						SAY	188.00 cum
9.00	Providing and laying HYSD bars with cement polymer composite coating (CPCC) anticorrosive epoxy treatment for reinforcement for structure including cutting, bending hooking by machine, trying....						
	<u>Nallah bridges =20 Nos.</u>						
	for portion of RCC as per i/no						
	I/no- 11 raft, strip foundation and footings	231.30		@	80.00 Kg/m	18504.00 Kg	
	I/no- 12 ... cut off walls, Walls	187.50		@	90.00 Kg/m	16875.00 Kg	
						TOTAL	35379.00 Kg
						SAY	35.38 M.T
10.00	Providing earth work for embankment with approved materials obtained by excavation from departmental land or other sources including all lifts and leads upto 50 m, laying in layers of 20 cm. to 30 cm. thickness breaking clods, dressing to the required lines, curves, grade and section, watering and Compaction with power roller etc. complete as directed by Engineer in charge.						
	for back filling in foundations of walls etc. taken as area for filling =67%						
	<u>For road crossing =10 Nos.</u>						
	Road width Taken=20metre	6.70	20.00	2.00	1.60	428.80 cum	
	<u>Flood RCC wall along with Road =250m</u>						
	Flood wall 0.30m thickfoundation	0.67	250.00	1.70	1.10	313.23 cum	
						TOTAL	742.03 cum
						SAY	742.00 cum
11.00	Add for providing richer mixes respectively at all level. (I) Providing M-30 grade RCC instead of M-20 or 1: 1½ :3 or grade RCC.						
	<u>Nallah bridges =20 Nos.</u>						
	for portion of RCC as per i/no						
	I/no- 10 raft, strip foundation and footings	1.00	231.30 cum			231.30 cum	
	I/no- 11 ... cut off walls, Walls	1.00	187.50 cum			187.50 cum	
						TOTAL	418.80 cum
						SAY	419.00 cum
12.00	Providing uncoursed rubble trap/ granite/ quartzite/ gneiss stone masonry in cement mortar 1:5 for piers, abutments, wings, returns, headwalls, parapet etc. including striking joints of the non exposed faces and pointing the exposed faces with cement mortar (1:3) including scaffolding and curing masonry complete (including bailing out of water) as directed by Engineer in charge.						
	for stone work at foundation						
	<u>For road crossing =10 Nos.x2sides</u>						
	Road width Taken=20metre	20.00	2.00	0.75	0.60	18.00 cum	
		20.00	2.00	0.60	0.60	14.40 cum	
		20.00	2.00	0.45	1.50	27.00 cum	
						TOTAL	59.40 cum

I. No.	Item in Brief	No.	Length	Breadth	Height	Contents	unit
						SAY	59.00 cum
13.00	Providing & Laying in position, jointing In line, level as directed reinforced cement concrete pipes of class and diameter . (a) NP-2 type I.S. 456-2000 (for Light traffic road upto MDR stated) (i) 600mm Diametre For road crossing =10 Nos. <u>For road crossing =10 Nos.x2pipes</u> Road width Taken=20metre						
		20.00	20.00				400.00 Rg.M
						TOTAL	400.00 Rg.M
						SAY	<u>400.00</u> Rg.M

ANALYSIS OF RATE - SH 14

Item No- 14 - -Add for providing richer mixes respectively at all level.

(I) Providing M-30 grade RCC instead of M-20 grade RCC.

Analysis of Rate on DSR-2006-07

Details of cost for 1.0 cum

DESCRIPTION	UNIT	QTY	RATE	COST	REFERENCE
Cement (1.90bag/cum)	M.T.	0.0950	3990.00	379.05	
carraige of cement	M.T.	0.0950	136.60	12.98	
TOTAL	*****	*****		392.03	
Add For water charges @ 1%	392.03	1.00	%	3.92	
TOTAL	*****	*****		395.95	
Add For contractor's profit & over head @10%	395.95	*****		39.59	
Cost for 1.00 cum -TOTAL	*****	*****	Rs	435.54	

ANALYSIS OF RATE - SH 14

NAME OF WORK :- DPR for Construction of Flood Wall & Road Culvert at left side bank ZONE N-III, Nanded.

29.01.2007

ITEM	Description of Item	Rate	Unit
1.00	Excavation for foundation in earth, soils of all types, sand, Gravel and soft murum, including removing the excavated materiakigto a distance of 50 m. beyond the building area stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering (including shoring and strutting) etc. complete. (Lift upto 1.50 Metre).		
	Rate as per PWD DSR-2006-07, I.No-1 P.No-7	46.00	Per CUM
	Add 5% corporation Charges	2.30	Per CUM
	Total	48.30	Per CUM
2.00	Excavation for foundation In hard murum and boulders upto 0.3 cum. to 0.20 cum. size including shoring and strutting as necessary and disposing off excavated stuff as directed excluding dewatering if separately provided etc. complete as directed by Engineer in charge		
	Rate as per PWD DSR-2006-07, Item no- 753, P-270	81.00	Per CUM
	add conveying & shifting upto 3Km Lead	66.68	Per CUM
	Total	147.68	Per CUM
	Add 5% corporation Charges	7.38	Per CUM
	Total	155.06	Per CUM
	say	155.05	Per CUM
3.00	Providing and filling with approved Sand, shingle below raft including watering, compaction etc. complete as directed by Engineer in charge.		
	Rate as per PWD DSR-2006-07, Item no- 759, P-271	162.00	Per CUM
	add Lead charges 13Km =(149.32-84.73)	64.59	Per CUM
	Total	226.59	Per CUM
	Add royalty charge	17.67	Per CUM
	Add 5% corporation Charges	8.10	Per CUM
	Total	252.36	Per CUM
	say	252.35	Per CUM
4.00	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm. to 20 cm. thick including hand packing and compacting complete		
	Rate as per PWD DSR-2006-07, I.No-17 P.No-10	129.00	Per CUM
	add Lead charges 13Km =(182.68-103.66)	79.02	Per CUM
	Total	208.02	Per CUM
	Add royalty charge	17.67	Per CUM
	Add 5% corporation Charges	10.40	Per CUM
	Total	236.09	Per CUM
	say	236.10	Per CUM
5.00	Providing selected hard murum filling including laying in layers of 15 cm. to 20 cm. thick layers including watering and compacting etc. complete as directed by Engineer in charge		
	Rate as per PWD DSR-2006-07, I.No-737 P.No-266	85.00	Per CUM
	add Lead charges 13Km =(149.32-84.73)	64.59	Per CUM
	Total	149.59	Per CUM
	Add royalty charge	17.67	Per CUM
	Add 5% corporation Charges	7.48	Per CUM
	Total	174.74	Per CUM
	say	174.75	Per CUM

6.00 Providing and laying in situ cement concrete 1:4:8 proportion with trap/ granite/ quartzite/ gneiss metal in foundation including necessary compacting and curing including formwork if required etc. complete as directed by Engineer in charge. (3.40 Bags/ Cum).

Rate as per PWD DSR-2006-07, I.No-732 P.No-265	1394.00 Per CUM
add Lead charges for stone 13Km $=(149.32-84.73)*0.94$	60.71 Per CUM
add Lead charges for sand 20Km $=(204.08-84.73)*0.47$	56.09 Per CUM
Total	1510.81 Per CUM
Add royalty charge $=17.67*(0.94+0.47)$	24.91 Per CUM
Add 5% corporation Charges	75.54 Per CUM
Total	1611.26 Per CUM
say	1611.25 Per CUM

7.00 Providing and laying in situ cement concrete M-20 of trap/ granite/ quartzite/ gneiss metal for reinforced cement concrete work in foundation like raft, grillages, strip foundation and footings of reinforced cement concrete columns and steel stanchion including bailing out water, form work, compaction and finishing, curing etc. complete. (Excluding steel reinforcement and structural steel) (7.60 Bag/ Cum.)

Rate as per PWD DSR-2006-07, I.No-46 P.No-19	2482.00 Per CUM
add Lead charges 13Km $=(149.32-84.73)*0.9$	58.13 Per CUM
add Lead charges for sand 20Km $=(204.08-84.73)*0.45$	53.71 Per CUM
Total	2593.84 Per CUM
Add royalty charge $=17.67*(0.90+0.45)$	23.85 Per CUM
Add 5% corporation Charges	129.69 Per CUM
Total	2747.38 Per CUM
say	2747.40 Per CUM

8.00 Providing and laying in situ controlled reinforced cement concrete of M-20 for cut off walls including form work, scaffolding, compaction, by vibrating, finishing, curing etc. complete as directed by Engineer in charge. (7.60 bags/ Cum.)

Rate as per PWD DSR-2006-07, I.No-764 P.No-273	2963.00 Per CUM
add Lead charges 13Km $=(149.32-84.73)*0.9$	58.13 Per CUM
add Lead charges for sand 20Km $=(204.08-84.73)*0.45$	53.71 Per CUM
Total	3074.84 Per CUM
Add royalty charge $=17.67*(0.90+0.45)$	23.85 Per CUM
Add 5% corporation Charges	153.74 Per CUM
Total	3252.43 Per CUM
say	3252.45 Per CUM

9.00 Providing and laying HYSD bars with cement polymer composite coating (CPCC) anticorrosive epoxy treatment for reinforcement for structure including cutting, bending hooking by machine, trying in position including binding wire, spacers, chairs, cover blocks as per detailed drawing including all leads and lifts etc. complete.

With anti corrosive treatment either by CPCC or by FBEC.	
Including addition of CPCC rate	5,000.00 Per M.T.
Rate as per PWD DSR-2006-07 I.No-803 P.No-283	33,232.00 Per M.T.
Total	38,232.00 Per M.T.
Add corporation charges @ 5%	1,911.60 Per M.T.
Total	40,143.60 Per M.T.
Say	40,143.60 Per M.T.

10.00 Providing earth work for embankment with approved materials obtained by excavation from departmental land or other sources including all lifts and leads upto 50 m, laying in layers of 20 cm. to 30 cm. thickness breaking clods, dressing to the required lines, curves, grade and section, watering and Compaction with power roller etc. complete as directed by Engineer in charge.

Rate as per PWD DSR-2005-06, I.No-655 P.No-232	35.00 Per CUM
Add 5% corporation Charges	1.75 Per CUM
Total	<u>36.75 Per CUM</u>
say	<u>36.75 Per CUM</u>

11.00 Add for providing richer mixes respectively at all level.

(I) Providing M-30 grade RCC instead of M-20 or 1: 1½ :3 or grade RCC.

Rate as per Rate Analysis	435.54 Per CUM
Add 5% corporation Charges	21.78 Per CUM
Total	<u>457.32 Per CUM</u>
say	<u>457.30 Per CUM</u>

12.00 Providing uncoursed rubble trap/ granite/ quartzite/ gneiss stone masonry in cement mortar 1:5 for piers, abutments, wings, returns, headwalls, parapet etc. including striking joints of the non exposed faces and pointing the exposed faces with cement mortar (1:3) including scaffolding and curing masonry complete (including bailing out of water) as directed by Engineer in charge.

Rate as per PWD DSR-2006-07, I.No-734 P.No-265	887.00 Per CUM
add Lead charges 12Km =(149.02-88.58)	60.44 Per CUM
Total	<u>947.44 Per CUM</u>
Add royalty charge	17.67 Per CUM
Add 5% corporation Charges	47.37 Per CUM
Total	<u>1012.48 Per CUM</u>
say	<u>1012.50 Per CUM</u>

13.00 Providing & Laying in position, jointing In line, level as directed reinforced cement concrete pipes of class and diameter .

(a) NP-2 type I.S. 456-2000 (for Light traffic road upto MDR stated)

(i) 600mm Diametre

cost of pipe per meter (M.Rate)	702.00 Per Rg. M.
Tax12%	84.24 Per Rg. M.
Carraige ...per metre pipe	30.00 Per Rg. M.
Total	<u>816.24 Per Rg. M.</u>
Add 1% water charge	8.16 Per Rg. M.
Total	<u>854.40 Per Rg. M.</u>
add 10% CP/OH	85.44 Per Rg. M.
Total	<u>939.84 Per Rg. M.</u>

for fixing of pipe ...Rate as per PWD DSR-2006-07, I.No-736

P.No-266	188.00 Per Rg. M.
Total	<u>1127.84 Per Rg. M.</u>
Add 5% corporation Charges	56.39 Per Rg. M.
Total	<u>1184.23 Per Rg. M.</u>
say	<u>1184.25 Per Rg. M.</u>

LEAD CHART - SH 14

Reference :- Irrigation Division, Nanded.

S.No.	Name of Material	Total Lead in Km.
1	Cement/ Tiles/ Tandur /Tile/ Precast Tile	with in Initial lead of 5Km
2	Tor Steel / Mild steel	with in Initial lead of 5Km
3	All Type Paints etc.	with in Initial lead of 5Km
4	Rubble / stone	18 - 5 = 13Km
5	Metal (All Types)	18 - 5 = 13Km
6	Sand	26 - 5 = 21Km (say 20Km)
7	Murum	18 - 5 = 13Km