

Union Territory of Jammu and Kashmir



PUBLIC WORKS DEPARTMENT

(Roads & Buildings)

Jammu Province

Application for Accord of Administrative Approval

For

Construction of Phase 2nd of Ongoing "Road from Katyara to Kansar via Haddal" from House of Sh. Rattan Lal (Village lower Haddal} to village Bharai via village upper Haddal

TEHSIL: - BHADERWAH.

DISTRICT: -DODA.

COST = 295.57 LACS

*Executive Engineer,
PWD(R&B) B.C Road Division,
Bhaderwah.*

*Superintending Engineer,
PWD (R&B) Circle,
Bhaderwah.*

TECHNICAL REPORT

Name of the work: Construction of phase 2nd of ongoing "Road from katyara to kansar via. Haddal" from House of Sh. Ratan Lal (Village lower Haddal to village Bharia via Village Upper Haddal).

Length : 2.0 Km

Authority : Chief Engineer Pw(R+B) Department Jammu.

History and necessity: Village Bharai and Upper Haddal is situated in Bhadarwah constituency, being a backward area and there is no connectivity to the village. The public residing in the area suffers a lot in absence of Road connectivity. The school going children as well as the old age people suffers during rainy and winter seasons. The area is snow bound and there is a long pending demand of the public for the construction of this road. The area is rich in Agriculture, Sheep and Wool, dairy, and forest products. The proposed road shall go a long way in transportation of these commodities to nearby market there by increasing the average income of the people and helping in the socio-economic development of the area. The people of the area with construction of this road shall have an easy access to the Tehsil and District Headquarters and can avail good education and Health care facility. The labor class of the area can move to market to earn their live hood. It will also provide employment to the skilled and unskilled labor of the area. Thus, necessity arises for the preparation of this AAA.

Present Status The Project is for New construction of the Road.

Physical detail and Technical Specification:

The proposed road shall have length of 2.00 Km. The Road shall be constructed mostly by way of Earthwork in cutting and overall formation width shall be 6.00 mts, with 3.5 mts carriage width, the walling has been proposed at valley and curves to improve the road geometrics .

The road has been proposed in rising gradient of 5% grade and at some stretches 6% grade has also been proposed as per the site conditions. Proper super elevation, Cross- slope and Camber have been proposed as per IRC Specification. The back slope of cutting shall range from 1:6 to 1:12 as per terrain classification; a longitudinal kaccha drain has been proposed uphill side of the road.

Cost of the project: The Estimated cost of the scheme is Rs.280.00 lacs.

Time for Completion :

The project to the tune of Rs. ^{295.57}~~280.00~~ Lacs shall be completed up to fair weather status within 24 months subject to the availability of funds, AAA, Technical sanction and Fair weather condition.


Assistant Executive Engineer
B. C. Road Sub- Division
Bhaderwah


Executive Engineer
B.C Road Division
Bhaderwah

RD	C/S AREA	TOTAL AREA	MEAN AREA	LENGTH	QUANTITY.
0	0				
25	12.5	12.5	6.25	25	156.25
50	14.31	26.81	13.405	25	335.125
75	6.21	20.52	10.26	25	256.50
100	13.11	19.32	9.66	25	241.50
125	15.81	28.92	14.46	25	361.50
150	11.98	27.79	13.895	25	347.375
175	16.62	28.6	14.3	25	357.5
200	21.56	38.18	19.09	25	477.25
225	117.48	139.04	69.52	25	1738
250	15.86	133.34	66.67	25	1666.75
275	17.86	33.72	16.86	25	421.50
300	17.86	35.72	17.86	25	446.5
325	15.56	33.42	16.71	25	417.75
350	19.66	35.22	17.61	25	440.25
375	19.25	38.91	19.455	25	486.375
400	16.81	36.06	18.03	25	450.75
425	16.5	33.31	16.655	25	416.38
450	33.01	49.51	24.755	25	618.88
475	13.36	46.37	23.185	25	579.625
500	18.71	32.07	16.035	25	400.88
525	16.86	35.57	17.785	25	444.625
550	14.73	31.59	15.795	25	394.875
550A	109.82	124.55	62.275	35	2179.625
575	21.76	131.58	65.79	25	1644.75
600	23.35	45.11	22.555	25	563.875
625	23.69	47.04	23.52	25	588
650	9.36	33.05	16.525	25	413.13
675	18.06	27.42	13.71	25	342.75
700	14.93	32.99	16.495	30	494.85
725	2.76	17.69	8.845	25	221.13
750	21.3	24.06	12.03	25	300.75
775	17.65	38.95	19.475	25	486.88
800	117.65	135.3	67.65	25	1691.25
825	2.36	120.01	60.005	25	1500.13
850	9.61	11.97	5.985	25	149.63
875	15.3	24.91	12.455	25	311.375
900	13.36	28.66	14.33	25	358.25
925	4.22	17.58	8.79	25	219.75
925A	100.53	104.75	52.375	40	2095.00
950	15.24	115.77	57.885	25	1447.13
975	9.77	25.01	12.505	25	312.63
1000	11.76	21.53	10.765	35	376.78
				Total	26776.98

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 Assistant Executive Engineer
 B.C. Road Sub-Division
 Madarwah

E/w chart for km 4th (0-1000)

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RD	C/S AREA	TOTAL AREA	MEAN AREA	LENGTH	QUANTITY.
0	0				
25	9.36	9.36	4.68	25	117
50	2.71	12.07	6.035	25	150.875
75	15.83	18.54	9.27	25	231.75
100	14.46	30.29	15.145	25	378.625
125	26.45	40.91	20.455	25	511.375
150	6.07	32.52	16.26	25	406.5
175	15.71	21.78	10.89	25	272.25
200	9.24	24.95	12.475	25	311.88
225	17.17	26.41	13.205	25	330.125
250	10.56	27.73	13.865	25	346.625
275	10.96	21.52	10.76	25	269.00
300	33.89	44.85	22.425	25	560.625
325	6.36	40.25	20.125	25	503.125
350	16.43	22.79	11.395	25	284.875
375	27.63	44.06	22.03	25	550.75
400	15.8	43.43	21.715	25	542.88
425	20.21	36.01	18.005	25	450.125
450	15.41	35.62	17.81	25	445.25
475	16.9	32.31	16.155	25	403.875
500	17.24	34.14	17.07	25	426.75
525	21.57	38.81	19.405	25	485.125
550	11.52	33.09	16.545	25	413.63
575	17.68	29.2	14.6	25	365
600	27.36	45.04	22.52	25	563.00
625	27.68	55.04	27.52	25	688.00
650	24.62	52.3	26.15	25	653.75
675	124	148.62	74.31	25	1857.75
700	23.33	147.33	73.665	25	1841.63
725	41.76	65.09	32.545	25	813.625
750	28.03	69.79	34.895	25	872.375
775	112	140.03	70.015	25	1750.375
800	20.33	132.33	66.165	25	1654.13
825	18.51	38.84	19.42	25	485.50
850	18.56	37.07	18.535	25	463.375
875	26.45	45.01	22.505	25	562.625
900	27.99	54.44	27.22	25	680.5
925	23.51	51.5	25.75	25	643.75
950	18.56	42.07	21.035	25	525.875
975	21.71	40.27	20.135	25	503.38
1000	16.66	38.37	19.185	50	959.25
				Total	24276.88

Classification chart				
Total quantity		51053.85	Cum	
All kind of soil	60%	30632.31	cum	
Soft rock	30%	15316.16	cum	
Hard rock	10%	5105.39	cum	

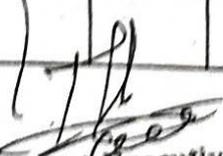
Assistant Executive Engineer
B.C. Road Sub-Division

Executive Engineer
Bhadarwah Chariba Road Division
BHADARWAH

DETAIL ESTIMATE FOR THE CONSTRUCTION OF 1.0 mts DIA. HUME PIPE CULVERT ON ROAD TO.....

S.NO	DESCRIPTION OF ITEMS						Qty.	UNIT	RATE	AMOUNT
1	E/w Trench excavation over area (exceeding 30cm in depth, 1.5 mts in width as well 10Sqm on plan) including disposal of excavated earth and lift upto 1.5m, Disposed earth to be leveled and neatly dressed for a lead of 25mts. All kind of Soil=80%, ordinary rock 10% and Hard Rock=10%.									
	Av. Width Calculation	No	L	W	H					
	$H=1/2(2.4+1.40)=1.90$	D/Wall	1	2.5	1.65	1.9	7.84			
	$H=1/2(1.4+1.20)=1.30$	C/Wall	1	2.5	1.4	1.3	4.55			
		Catch pit	1	2.4	1.95	0.95	4.45			
	$H=1/2(0.80+0.40)=0.60$	Pitch	1	8.6	1.5	0.6	7.74			
	Total						24.57			
								Cum	640.05	15728
2	Providing and laying of cement concrete (1:5:10) Nominal Mix. Max size of stone agg. 40mm.									
		No	L	W	H					
		D/Wall	1	2.5	1.65	0.15	0.61875			
		C/Wall	1	2.5	1.4	0.15	0.525			
		Catch pit	1	2.4	1.95	0.15	0.702			
		Pitch	1	8.6	1.5	0.15	1.935			
							3.78			
								Cum	5682.25	21483

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Assistant Executive Engineer
B.C. Road Sub-Division
Bhadarwah

3	Providing and laying of cement concrete (1:3:6) Nominal Mix. Max size of stone agg. 20mm. With 20% Plumb Concrete in retaining wall and return wall.									
			No	Length	width in M	Height in M				
	$w=1/2(1.35+0.60)=0.975$	D/Wall	1	2.5	0.975	3.5				8.53
	$w=1/2(1.10+0.60)=0.85$	C/Wall	1	2.5	0.85	2				4.25
		Parapet	2	2.5	0.6	0.6				1.80
		Pitch wall	2	1.9	0.5	1.25				2.38
			1	1.5	0.5	1.25				0.94
										17.89
										Total
4	centering and shuttering including propping and removal complete									
			No	L in M	Width in M	H In M				
		D/wall	2	2.5	3.5	0				17.50
	$(1.35+0.60)/2=0.975$		2	2.5	0.975	0				4.88
		C/Wall	2	2.5	3.2	0				16.00
	$(1.10+0.60)/2=0.85$		2	0.85	2	0				3.40
		Parapet 2nos	4	2.5	0.6	0				6.00
			4	0.6	0.6	0				1.44
										Total
5	Providing and laying Horizontal DPC 50mm thick in M15 grade Concrete. Max. size of stone agg. 20mm.									
			No	L in M	Width in M	H In M				
		Parapet	2	2.5	0.6	0				3.00
		Pit.	1	1.5	1.5	0				2.25
										Total

19/11

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Assistant Executive Engineer
B.C. Road Sub-Division
Bhadarwah

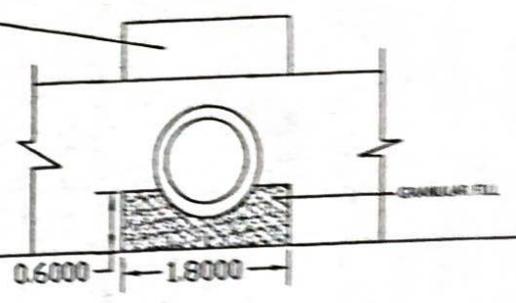
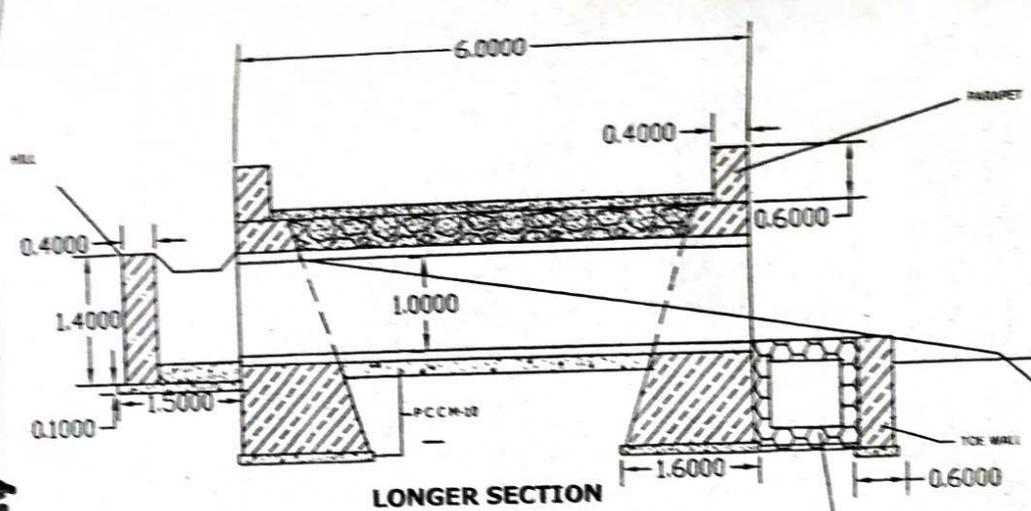
6	Hand packed stone filling in wire Crates excluding Cost of Crate.						8.64	Cum	863.45	7460				
		No	L in M	Width in M	H In M									
		1	6	1.2	1.2									
	Total										8.64			
7	Stone filling , hand packed including cost of stone supply.						1.88	Cum	863.45	1619				
		No	L in M	Width in M	H In M									
	(1.2+0.3)/2=0.75	1	1	2.50	0.75									
8	Providing and laying od Hume Pipe .						7.50	Rmts	6396.15	47971				
											0.00	No	0	0
9	Filling of available earth in layer not exceeding 20 cm in depth consolidation of each layer deposited layer ramming and watering lead upto 50mts.						9.50	Cum	198.7	1888				
		No	L in M	Width in M	H In M									
	(1.8+1.0)=0.90	1	8.8.	1.20	0.90									
10	Consumption statement													
	item	Qty.	Cemen	Sand	Aggregat	stone								
	2	3.78	9.83	1.70	3.36	0								
	3	14.32	63.01	6.44	12.74	0.00								
	5	5.25	1.68	0.12	0.23	0.00								
	6	8.64	0.00	0.00	0.00	8.64								
	Total		74.52	8.26	16.34	8.64								
11	Carriage of stone aggregate at an average distance of 50km by M.T						8.26	Cum	609	5031				
12	Carriage of stone aggregate at an average distance of 50km by M.T						16.34	Cum	609	9951				
13	Carriage of Stone 10 Km by M.T						8.64	cum	287.3	2482				
14	Add cost of crate						1.00	Rmts	5000	5000				
	Add Cost of Pipe						7.50	Rmts	4672.25	35042				
	Add for temporary diversion							L.S		20000				
Total										282418				

Say-Rs. 2.82lacs.

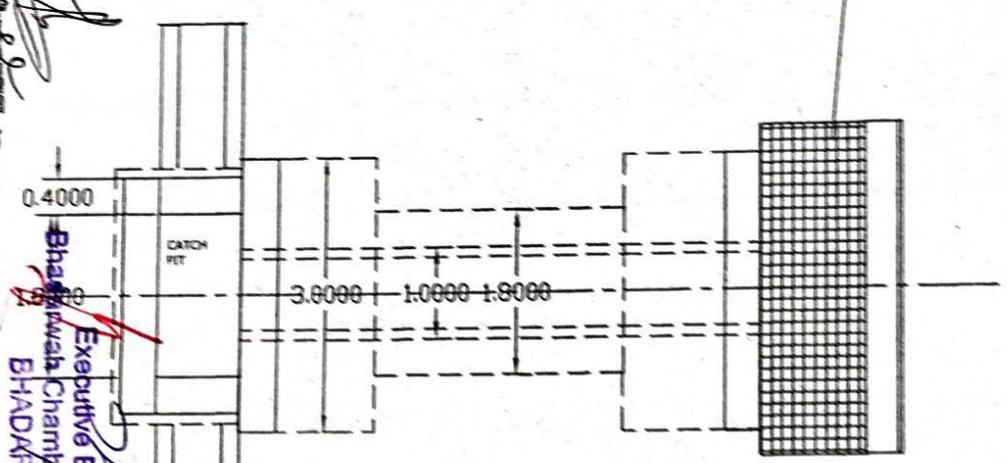
Executive Engineer
Bhadarwah Chamba Road Division
BHADARWAH

Assistant Executive Engineer
B.C. Road Sub-Division
Bhadarwah

NO.	REV.	DESCRIPTION	DATE	APPROVED



CROSS SECTION



PLAN

Assistant Engineer
 High Road Sub-Division
 BHADARWAH
 Executive Engineer
 Chamla Road Division
 BHADARWAH

CONSTRUCTION OF ROAD FROM KLOTHMAN TO PORABALA	OFFICE OF THE EXECUTIVE ENGINEER PINGLY DIVISION THIRUTHIR			
	TYPICAL DRAWING FOR THE CONSTRUCTION OF 1.0M DIA. HUME PIPE CULVERT.			
PINGLY SUB-DIVISION BHALASSA	SCALE	FORM NO.	DATE	REV.

DETAIL ESTIMATE FOR THE CONSTRUCTION OF SEMI PUCCA R/WALL OF HEIGHT 4.0 MTS.

S.NO	DESCRIPTION OF ITEMS	Qty.	UNIT	RATE	AMOUNT	
1	E/w Trench excavation over area (exceeding 30cm in depth, 1.5 mts in width as well 10Sqm on plan) including disposal of excavated earth and lift upto 1.5m, Disposed earth to be leveled and neatly dressed for a lead of 25mts. All kind of Soil=80%, ordinary rock=10% and Hard Rock=10%.					
	L W H					
	10 1.7 1	17.00	Cum	640.05	10881	
2	Providing and laying of cement concrete (1:5:10) Nominal Mix. Max size of stone agg. 40mm.					
	10 1.7 0.15	2.55	Cum	5682.25	14490	
	Random Rubble Masonry with Nallah stone in foundation and plinth including leveling up 1:6:12 (1:cement, 6: coarse sand, 12: stone aggr.20mm nominal size) with cement mortar 1:6 (1 cement: 6 coarse sand).					
	Av. Width No Length width in M Height in M					
	$\frac{1}{2}(1.6+0.145)=1.52$	1	10	1.52	0.6	9.12
	$\frac{1}{2}(1.17+0.102)=1.09$	1	10	1.09	0.6	6.54
	$\frac{1}{2}(0.75+0.60)=0.675$	1	10	0.675	0.6	4.05
	$\frac{1}{2}(1.45+1.17)=1.31$	4	0.6	1.31	1.1	3.46
	$\frac{1}{2}(1.02+0.75)=0.885$	4	0.6	0.885	1.1	2.34
	Total		25.50	Cum	4435.25	113120
4	Dry rubble random stone masonry with hard stone nallah.					
	No L in M Width in M H In M					
	$\frac{1}{2}(1.60+0.45)=1.025$	1	10	1.025	4	
					41.00	

Signature


Assistant Executive Engineer
B.C. Road Sub-Division
 Bhadrapur

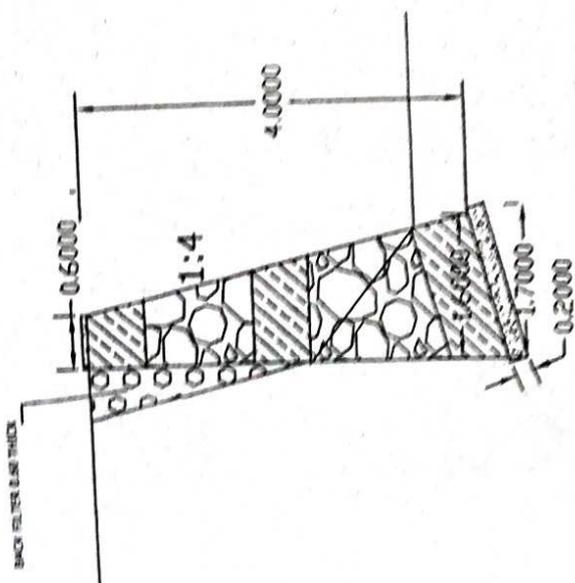
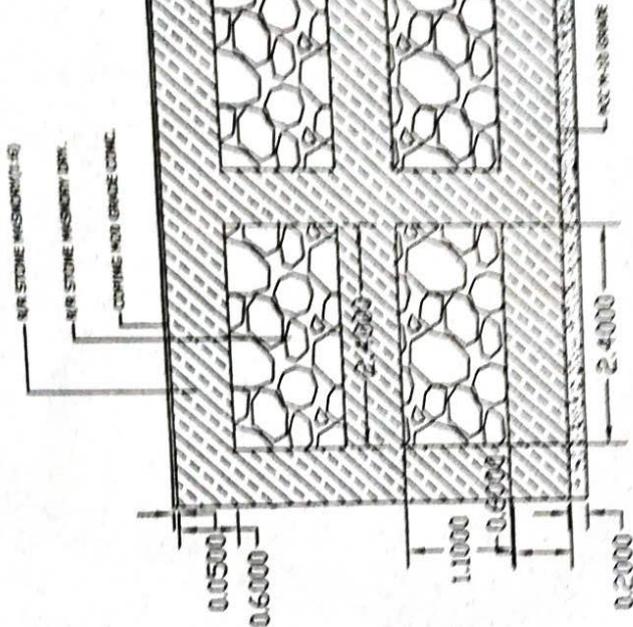
	Net Qty.	41.00	25.50	15.50	Cum	2355.95	36506		
5	Providing and laying horizontal DPC 50mm thick of cement concrete (1:2:4) mix, with graded stone aggregate 20mm nominal size.								
		1	10	0.6	0	6.00	Sqm	372.85	2237
6	Consumption statement								
	item Qty.	cement	sand	Aggregate	stone				
	2	2.55	6.63	1.15	2.27	0			
	3	25.50	42.08	8.42	1.53	25.50			
	4	15.50	0.00	0	0.00	15.50			
	5	6.00	1.92	2.70	0.13	0.264			
	Total	50.63	12.26	3.93	41.26				
	Centering and shuttering =10X 0.15=1.65sqm								
						1.65	sqm	262.3	433
	Carriage of stone aggregate at an average distance of 35km by M.T					12.26	Cum	479.42	5880
	Carriage of stone aggregate at an average distance of 35km by M.T					3.93	Cum	479.42	1885
0	Carriage of Stone 10 Km by M.T					41.26	cum	287.3	11855
								Total	197286
	Cost of B/wall 1rmts								19729

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Assistant Executive Engineer
B.C. Road Sub-Division,
Bhadarwah


Executive Engineer
Bhadarwah Chamba Road Division
BHADARWAH

NOTE: ALL DIMENSIONS ARE SHOWN IN METERS.



ELEVATION

SECTION

REVISION		DATE	BY
REVISION BY SECTION OF WALL & ROAD			

[Signature]
 Executive Engineer
 Bhadarwah Chamba Road Division
 BHADARWAH

[Signature]
 Assistant Executive Engineer
 B.C. Road Sub-Division
 Bhadarwah

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2
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