

8. No (33)
GOVERNMENT OF JAMMU & KASHMIR

PUBLIC WORKS DEPARTMENT

JAMMU

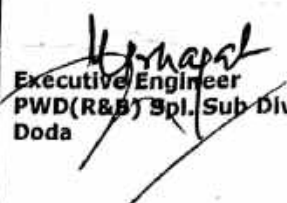
PWD(R&B) CIRCLE DODA
PWD (R&B) SPECIAL SUB DIVISION DODA

PROJECT REPORT

CONSTRUCTION OF LINK ROAD FROM BARSHALLA TO BHALWANA VIA
SISOOL (UNDER CRF).

Length of road :- 13.00 KM

Estimated cost:- 1800.00 lacs


Executive Engineer
PWD(R&B) Spl. Sub Division
Doda

Superintending Engineer
PWD(R&B) Circle
Doda



**OFFICE OF THE EXECUTIVE ENGINEER PWD (R&B)
SPL SUB DIVISION DODA**

The Distt. Superintending Engineer,
PWD (R&B) Circle,
Doda.

No. 3887-70
Dt. 19-9-2018

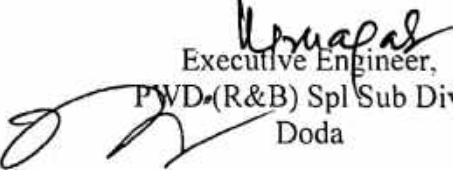
Sub: Submission of Detailed Project Report under CRF.

Sir,

Kindly find enclosed herewith the following DPR copy of Road project proposed under CRF sector as desired for favour of further necessary action at your end please.

S.No	Name of the Scheme	AA Cost (Rs in lacs)
1.	Construction of link Road from Barshalla to Bhalwana Via sisool (under CRF).	1800.00 lacs

Yours faithfully,


Executive Engineer,
PWD (R&B) Spl Sub Divn.
Doda

Encl: (01 set of DPR)

Copy to the :-

- 01/- Chief Engineer PW (R&B) Department Jammu for favour of information please.
- 02/- Asstt. Executive Engineer PWD (R&B) East Sub Division Doda for information.
- 03/- Head Draftsman Divisional office Doda for record and reference.

OFFICE OF THE EXECUTIVE ENGINEER PWD (R&B) SPL SUB DIVISION

DODA

Certificate that I have visited the site and alignment of the proposed project viz. Construction of link Road from Barshalla to Bhalwana (Length=13.00 km) upto B.T status under CRF Assistance. I am fully satisfied with the proposal envisaged in this project appraisal report.

1. It is further certificate that the there will be no problem regarding acquisition of land.
2. The existing adequate organizational set up can implement the project within the stipulated time.
3. It is further certified that the scheme is not covered under PMGSY.


Executive Engineer,
PWD (R&B) Spl Sub- Division
Doda

TECHNICAL REPORT

Name of Project: Construction of link Road from Barshalla to Bhalwana Via sisool (under CRF).

Authority:- Hon'ble Minister of state for public works department (R&B) .

History and Necessity: Bhalwana-Bakhna area is located towards the eastern side of Distt. HQ Doda at a distance of 40-50 Kms. The area is located on the upper reaches of hills on the right side of river Chenab opposite Tehsil H.Q-Thathri, the nearest Road head. The area is scattered over a no. of villages viz Sisool, Gujar Basti, Bhalwana with a population of more than 5000 people. In absence of vehicular link, the entire area has remained most backward , neglected ,and deprived of basic amenities. The population is very poor living below poverty line .With the construction of motarable bridge over river Chenab at Thathri, the construction of road from Thathri to Barshalla(L=5.20 Kms) has been completed upto fair weather status. The road to village Bhalwana has been proposed to take off from Barshalla . At present the people have to traverse on foot distance of 8.0 kms to reach to nearest head.

The area is rich in Agriculture ,Horticulture, Forest products which gets wasted without giving any returns. Moreover the labour class has to traverse a large distance to reach the nearest market for earning their livelihood. The school going children & patients are badly affected in absence of road connectivity.

The people of the area have been demanding the vehicular link for a long time. The Hon'ble Minister of state for public works department (R&B) has been kind enough to give his accent for the preparation of DPR and accordingly the DPR of the proposed road has been prepared.

Take off/Alignment: The proposed road shall take off from the Thathri-Barshalla Road km 5th RD (750) and the alignment shall run in rising grade and with a no. of zigs shall culminate at Bhalwana with length=13.00 Kms. Every effect has been taken to benefit max. population of the area connecting villages viz Sisool, Gujar Basti, on the way .

LAND : The Land involved in the constt. of road is largely State/ Pvt. Land/ Forest land (in stretches) is involved. Every effort has been taken to avoid slips zones and to minimize the no. of major X-Drainages.

Physical Details & Technical:

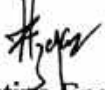
Specifications:- The proposed road shall have a length of 13.00 Kms .The road shall be constructed mostly by cutting. The overall formation width shall be 6.0 mts with 3.00 mts as carriage way width. The walling has been proposed at valley and curve point to improve the geometric of the road. The road has been proposed in rising gradient with ruling gradient of 6% with exceptional gradient up to 8% in smaller stretches . Proper radii of zigs, super elevation, cross slope/camber has been proposed as per I R C specifications. The back slope of earth cutting shall range from 1 in 6 to 1 in 12 as per terrain classification.

A longitudinal kacha drain has been proposed towards uphill side all-along the road. To drain off water from nallah and road surface, the requisite number of X-drainage works

have been proposed in shape of RCC Culverts & Hume Pipe Culverts. Semi Pucca B/walls have been proposed to protect the private houses/land and to retain the back slope wherever necessary.

The pavement of the road shall consists of two layers of 100 mm thick WBM-I and one layer of 75 mm thick WBM G-II. 50mm thick Bituminous Macadam & 25mm Bituminous concrete shall be laid as wearing surface.

Estimated cost of the project and time of completion : The estimated cost of the project is 1800.00 lacs as per abstract of cost and if sanctioned it shall take 18 months to complete the project.


Asst. Executive Engineer
PWD (R&B) East Sub Division
Doda


Executive Engineer
PWD(R&B) Spl. Sub Division
Doda

ABSTRACT OF COST

Name of State: - Jammu & Kashmir

Name of Work:- Construction of link road from Barshalla to Bhalwana Via Sisool.

Length:- 13.00 KM

Description	Brief Specifications	No.	Qty. Rates in Rs.	Rates in Rs.	Amount in Rs.
Excavation in soil using Hydraulic Excavator CK 90 and Tippers with Disposal upto 1000 meters.	Excavation for road work in soil with Hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000 m.				
	i) All kind of soil	Cum	137531.20	200.00	275.06
	ii) Ordinary Rock	Cum	52868.71	301.60	159.45
	iii) Hard rock by Blasting	Cum	37715.24	381.30	143.80
Permanent work					
	Const. of RCC (Box type) culvert 2mtr span	Nos	15.00	10.78	161.70
	Const. of 900 mm Dia Hume Pipe Culvert	Nos	15.00	5.71	79.94
	Contt. of Semi Pucca R/wall av ht. 6 M (as per typical estimate)	Rmt	400.00	0.37	111.00
	Constt. of 4 M height (as per typical estimate)	Rmt	600.00	0.17	85.00
	Const. of 3 M height (as per typical estimate)	Rmt	400.00	0.11	33.00
	Const. of Semi Pucca B/wall av. ht. 2 M (as per typical estimate)	Rmt	1000.00	0.07	63.00
	Constt. of Pucca Parapets (as per typical estimate)	Nos.	1300.00	0.012	15.60
	Providing & fixing crash barriers	Rmt	1200.00	0.035	42.00
	Constt. of stone, RD stones, sign board, caution boards etc.	Km	13.00	0.70	9.10
Surfacing Works					
WBM G-I	Providing and Laying 100 mm thick Water Bound Macadam	Cum	4504.00	2200.00	99.08
WBM G-II	Providing and Laying 75 mm thick Water Bound Macadam	Cum	3173.00	2200.00	69.80
Dense Graded Bituminous Macadam	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per	Cum	2047.00	9698.00	198.51

	hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 percent by weight of total mix and filler, transporting the hot mix to work site , laying with a hydrostatic paver with sensor control to the required grade , level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects.				
Bituminous Concrete	Providing and laying Bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading premixed with bituminous binder @ 5.4 to 5.6 percent by weight of total mix and filler, transporting the hot mix to work site , laying with a hydrostatic paver with sensor control to the required grade , level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects.	Cum	1024.00	11374.00	116.46
Primer Coat	Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer at the rate of 0.60 kg/Sqm using mechanical means.	Sqm	40950.00	55.00	22.52
Tack coat	Providing and applying tack coat with bitumen emulsion pressure distributor at rate of 0.20 kg per Sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	Sqm	40950.00	21.00	8.59
Drain	Const. of Pucca Drain	Mtr	800.00	1860.00	14.88
Total					1708.49

Add 3 % above for contingencies charges on	=	51.25 lacs. ✓
1% Devising Operation	=	17.08 lacs.
1% Quality control	=	17.08 lacs. ✓
0.5% Work charges establishment	=	8.54 lacs. ✓
G.Total	=	1802.44 lacs.
Say 1800.00 lacs		

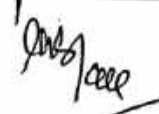

 Asstt. Executive Engineer
 PWD(R&B) East Sub- Division,
 Doda.

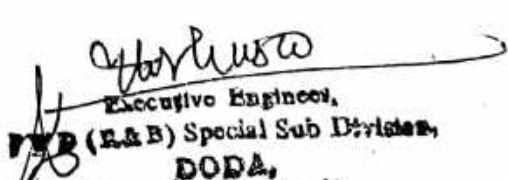


 Executive Engineer,
 PWD(R&B) Spl Sub- Division,
 Doda.


Km-wise break-up of E/work quantity as per classification:-

(RD)	Total Qty.	AKS	O/Rock	H/Rock
		(60%)	(20%)	(20%)
0-1000)	13785.00	8271.00	2757.00	2757.00
		(60%)	(20%)	(20%)
0-1000)	18877.50	11326.50	3775.50	3775.50
		(60%)	(25%)	(15%)
0-1000)	15062.50	9037.50	3765.62	2259.37
		(65%)	(20%)	(15%)
0-1000)	16830.00	10939.50	3366.00	2524.50
		(60%)	(25%)	(15%)
0-1000)	23747.50	14248.50	5936.87	3562.12
		(50%)	(30%)	(20%)
0-1000)	18184.50	9092.25	5455.35	3636.90
		(55%)	(25%)	(20%)
0-1000)	11924.00	6558.20	2981.00	2384.80
		(60%)	(25%)	(15%)
0-1000)	16101.00	9660.60	4025.25	2415.15
		(70%)	(15%)	(15%)
0-1000)	14282.00	9997.40	2142.30	2142.30
		(60%)	(25%)	(15%)
0-1000)	16261.00	9756.60	4065.25	2439.15
		(50%)	(25%)	(25%)
0-1000)	23416.00	11708.00	5854.00	5854.00
		(65%)	(25%)	(10%)
0-1000)	16313.50	10603.45	4078.37	1631.35
		(70%)	(20%)	(10%)
0-1000)	23331.00	16331.70	4666.20	2333.10
TOTAL	228115.50	137531.20	52868.71	37715.24






EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 1st

CLASSIFICATION

AKS=60%

O/ROCK=20%,

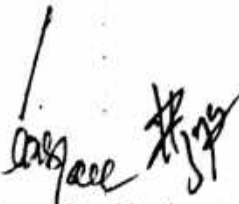
H/ROCK=20%

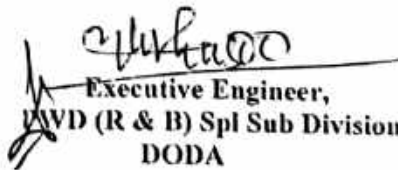
	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	22.16	-	--	-	-
0	4.56	26.72	13.36	250	3340.0
0	4.99	9.55	4.77	250	1192,5
0	15.82	20.81	10.40	250	2600.0
0	27.45	43.27	21.63	250	5407.5

T= 12540.00

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =13725.00


Asstt. Executive Engineer
WD (R & B) East Sub Div.
Doda


Executive Engineer,
WD (R & B) Spl Sub Division
DODA


Executive Engineer,
WD (R & B) Special Sub Division
DODA


Executive Engineer,
WD (R & B) Special Sub Division
DODA

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 2ND

CLASSIFICATION

AKS=60%

O/ROCK=20%,

H/ROCK=20%

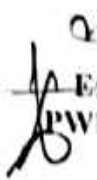
ID	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	27.45	-		-	-
50	7.51	34.96	17.48	250	4370.0
00	21.07	28.58	14.29	250	3572.5
50	16.48	37.55	19.77	250	4942.5
000	21.98	38.46	19.23	250	4807.5

T= 17692.50

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =18877.50


Asst. Executive Engineer
PWD (R & B) East Sub Div.
Doda


Executive Engineer,
PWD (R & B) Spl Sub Division
DODA


Executive Engineer,
PWD (R & B) Special Sub Division
DODA

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 3RD

CLASSIFICATION

AKS=60%

O/ROCK=25%,

H/ROCK=15%

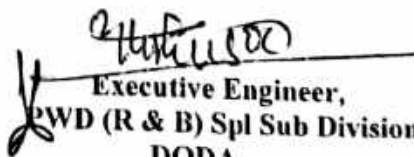
	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	21.98	-	-	-	-
	21.49	34.47	17.23	250	4307.5
	8.52	30..00	15.00	250	3750.0
	9.85	18.37	9.18	250	2295.0
0	18.35	28.20	14.10	250	3525.0

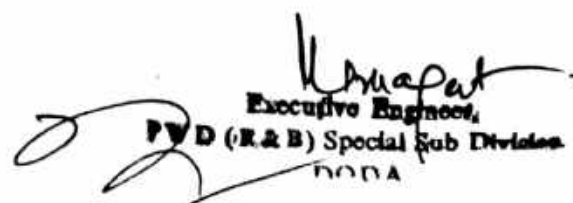
T= 13877.50

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =15062.50


Asstt. Executive Engineer
VD (R & B) East Sub Div.
Doda


Executive Engineer,
PWD (R & B) Spl Sub Division
DODA


Executive Engineer,
PWD (R & B) Special Sub Division
DODA

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 4TH

CLASSIFICATION

AKS=65%

O/ROCK=20%,

H/ROCK=15%

	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	18.35	-	-	-	-
0	18.49	36.84	18.42	250	4605.0
0	5.65	24.14	12.07	250	3017.5
0	19.00	24.65	12.32	250	3080.0
00	20.54	39.54	19.77	250	4942.5

T= 15645.00

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =16830.00

[Signature]
Asstt. Executive Engineer
WD (R & B) East Sub Div.
Doda

[Signature]
Executive Engineer,
PVD (R & B) Spl Sub Division
DODA

[Signature]
Asstt. Executive Engineer
WD (R & B) East Sub Div.
Doda

[Signature]
Executive Engineer,
PVD (R & B) Special Sub Division
DODA

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 5TH

CLASSIFICATION

AKS=60%

O/ROCK= 256%,

H/ROCK=15%

	C.S.A(sqm)	T.A	M.A	L.(m)	QTY.(cum)
	20.54	-	-	-	-
0	18.05	38.59	19.29	250	4822.5
0	23.04	41.09	20.54	250	5135.0
0	30.62	53.66	26.83	250	6707.5
00	16.57	47.19	23.59	250	5897.5

T= 22562.50

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =23747.50

Asst. Executive Engineer
WD (R & B) East Sub Div.
Doda

Executive Engineer,
WD (R & B) Spl Sub Division
DODA

Executive Engineer,
WD (R & B) Special Sub Division
DODA

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 6TH

CLASSIFICATION

AKS=50%

O/ROCK=30%,

H/ROCK=20%

	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	16.57	-	-	-	-
0	12.13	28.70	14.35	250	3587.5
0	12.25	24.38	12.19	250	3047.5
0	30.75	43.00	21.50	250	5375.0
00	9.17	39.92	19.96	250	4990.0

T= 16999.50

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total = 18184.50

Sub

Asstt. Executive Engineer
WD (R & B) East Sub Div.
Doda

Hathu
Executive Engineer,
PWD (R & B) Spl Sub Division
DODA

Sub
Asstt. Executive Engineer
WD (R & B) East Sub Div.
Doda

Umapati
Executive Engineer,
PWD (R & B) Special Sub Division
DODA

EARTHWORK CHART FOR

Construction of Road from Barshalla to Bhaiwana via Sisool.

KM- 7TH

CLASSIFICATION

AKS=55%
O/ROCK=25%,
H/ROCK=20%

	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	9.17	-	-	-	-
0	6.05	15.22	7.61	250	1902.5
0	17.21	23.26	11.63	250	2907.5
0	5.51	22.72	11.36	250	2840.0
00	19.97	25.48	12.74	250	3090.0

T= 10739.00

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =11924.00

[Signature]

asstt. Executive Engineer
WD (R & B) East Sub Div.
Doda

[Signature]
Executive Engineer,
WD (R & B) Spl Sub Division
DODA

[Signature]
WD (R & B) DDA
Asstt. Engineer

[Signature]
Executive Engineer,
WD (R & B) Special Sub Division
DODA.

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 8TH

CLASSIFICATION

AKS=60%

O/ROCK=25%

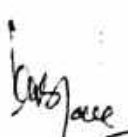
W/ROCK=15%

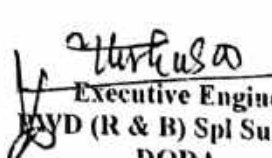
	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	19.97	-	-	-	-
0	18.68	38.65	19.32	250	4831.0
0	16.15	34.83	17.41	250	4352.5
0	7.15	23.30	11.65	250	2912.5
00	15.42	22.57	11.28	250	2820.0

T= 14916.00

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =16101.00


Asstt. Executive Engineer
PWD (R & B) East Sub Div.
Doda


Executive Engineer,
PWD (R & B) Spl Sub Division
DODA


Asstt. Executive Engineer
PWD (R & B) East Sub Div.
Doda


Executive Engineer,
PWD (R & B) Special Sub Division
DODA

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhaiwana via Sisool.

KM-9TH

CLASSIFICATION

AKS=70%

G/ROCK=15%,

H/ROCK=15%

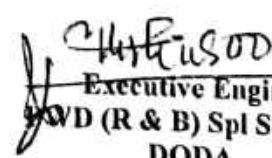
	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	15.42	-	-	-	-
0	10.34	25.76	12.88	250	3220.0
0	22.05	32.39	16.19	250	4047.5
0	2.25	24.30	12.15	250	3037.5
00	20.10	22.35	11.17	250	2792.5

T= 13097.00

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =14282.00


Asstt. Executive Engineer
PWD (R & B) East Sub Div.
Doda


Executive Engineer,
PWD (R & B) Spl Sub Division
DODA


Executive Engineer,
PWD (R & B) Special Sub Division
DODA

EARTHWORK CHART FOR

Construction of Road from Barshalla to Bhalwana via Siseol.

KM- 10TH

CLASSIFICATION

AKS=60%

O/ROCK=25%,

H/ROCK=15%

	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	20.10	-	-	-	-
0	16.33	36.43	18.21	250	4553.5
0	14.65	30.98	15.49	250	3872.5
0	15.85	30.50	15.25	250	3812.5
00	6.85	22.70	11.35	250	2837.5

T= 15076.00

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =16261.00

One/are
Asst. Executive Engineer
WD (R & B) East Sub Div.
Doda

One/are
Executive Engineer,
WD (R & B) Spl Sub Division
DODA

One/are
Executive Engineer,
WD (R & B) Special Sub Division
DODA

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 11TH

CLASSIFICATION

AKS=50%

O/ROCK=25%,

H/ROCK=25%

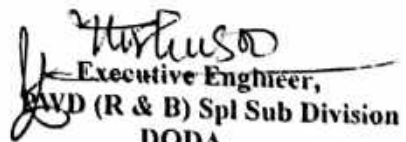
	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	6.85	-	-	-	-
0	17.40	24.25	12.12	250	3031.0
0	27.40	44.80	22.40	250	5600.0
0	33.82	61.22	30.61	250	7652.5
00	13.77	47.59	23.79	250	5947.5

T= 22231.00

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total =23416.00


Asst. Executive Engineer
WD (R & B) East Sub Div.
Doda


Executive Engineer,
WD (R & B) Spl Sub Division
DODA


Executive Engineer,
WD (R & B) Special Sub Division
DODA

EARTHWORK CHART FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 12TH

CLASSIFICATION

AKS=65%
O/ROCK=25%,
H/ROCK=10%

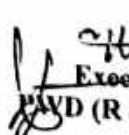
	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	13.77	-	-	-	-
	12.70	26.47	13.23	250	3308.5
	15.89	28.59	14.29	250	3572.5
	14.30	30.19	15.09	250	3772.5
0	21.50	35.80	17.90	250	4475.0

T= 15128.50

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

G.Total = 16313.50


 Sub Engineer
 PWD (R & B) East Sub Div.
 Doda


 Executive Engineer,
 PWD (R & B) Spl Sub Division
 DODA


 Executive Engineer,
 PWD (R & B) Special Sub Division
 DODA

EARTHWORK CHART

FOR

Construction of Road from Barshalla to Bhalwana via Sisool.

KM- 13TH

CLASSIFICATION

AKS=70%
O/ROCK=20%,
H/ROCK=10%

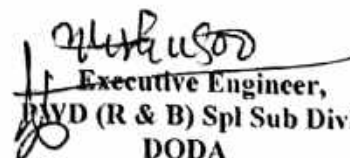
	C.S.A(sqm)	T.A	M.A	L(m)	QTY.(cum)
	21.50	-	-	-	-
0	26.25	47.75	23.87	250	5968.5
0	28.48	54.73	27.36	250	6840.0
0	4.84	33.32	16.66	250	4165.0
00	36.55	41.39	20.59	250	5172.5

T= 22146.00

Add for P/Zones = 3 No.s x 25m x 15.80sqm = 1185.00

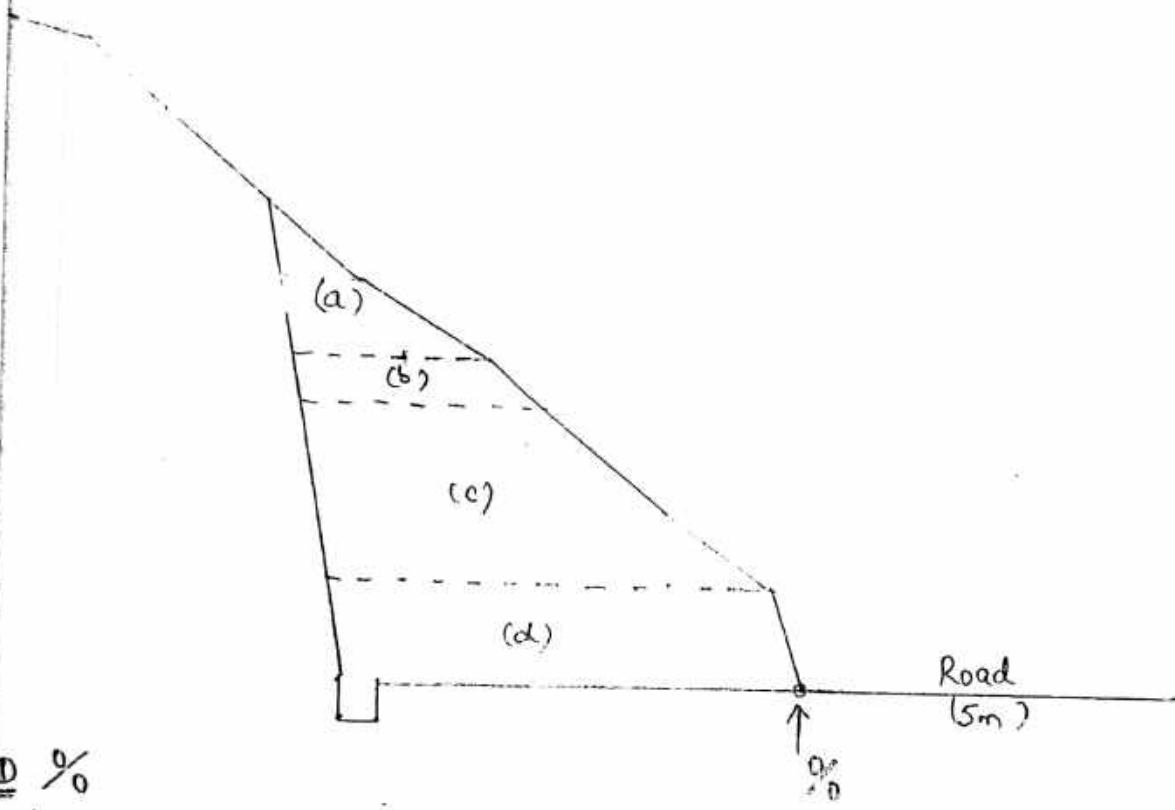
G.Total =23331.00


Asstt. Executive Engineer
WD (R & B) East Sub Div.
Doda


Executive Engineer,
WD (R & B) Spl Sub Division
DODA


Asstt. Engineer
WD (R & B) East Sub Div.
Doda


Executive Engineer,
WD (R & B) Special Sub Division
DODA



10 %

$$1) \frac{1}{2} \times 2.50 \times 2.0 = 2.50$$

$$2) \left(\frac{2.50 + 3.10}{2} \right) \times 0.60 = 1.68$$

$$3) \left(\frac{3.10 + 5.70}{2} \right) \times 2.30 = 10.12$$

$$4) \left(\frac{5.70 + 6.0}{2} \right) \times 1.30 = 7.61$$

$$1 \times 1 \times 1 = 0.50 \times 0.50 = 0.25$$

$$T = 22.16$$

#3092

2/4

Executive Engineer,
PWD (R&B) Special Sub Division
DODA.

For
1/19
Executive Engineer,
PWD (R&B) Special Sub Division
DODA.

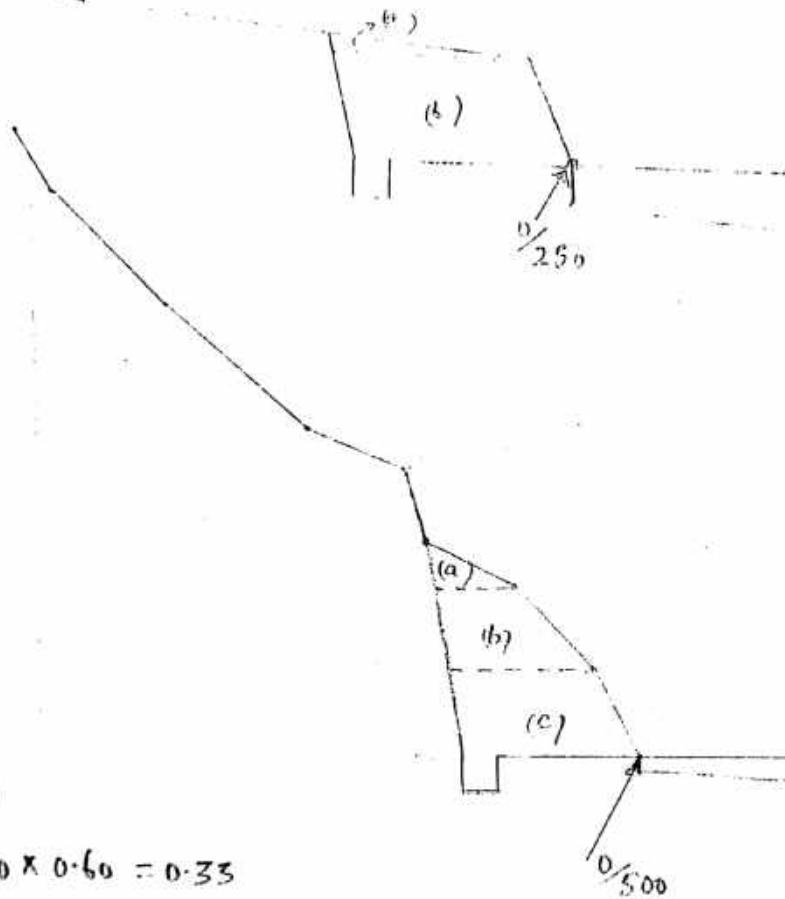
$$At = \frac{Pb}{250}$$

$$(a) \frac{1}{2} \times 2.60 \times 0.30 = 0.39$$

$$(b) \frac{(2.60 + 3.0) \times 1.40}{2} = 3.40$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 4.99$$



$$At = \frac{Pb}{500}$$

$$\frac{1}{2} \times 1.10 \times 0.60 = 0.33$$

$$(1.10 + 2.0) \times 1.10 = 1.71$$

$$\frac{(2.0 + 2.50) \times 1.20}{2} = 2.40$$

$$Drain = 0.5 \times 0.5 = 0.25$$

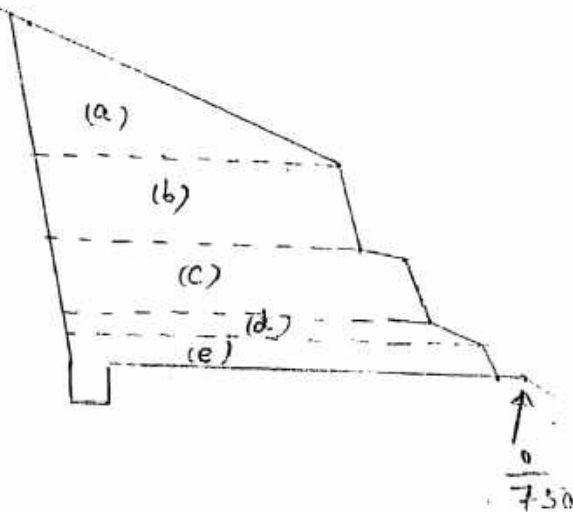
$$T = 4.99$$

[Signature]

[Signature]

[Signature]
Executive Engineer,
PWD (R & B) Special Sub Division,
DODA.

[Signature]
Executive Engineer,
PWD (R & B) Special Sub Division,
DODA.



RD 7.50

$$(a) \frac{1}{2} \times 3.90 \times 1.80 = 3.51$$

$$(b) \frac{(3.90 + 4.0)}{2} \times 1.10 = 4.35$$

$$(c) \frac{(4.0 + 4.80)}{2} \times 0.90 = 3.96$$

$$(d) \frac{(4.80 + 5.50)}{2} \times 0.30 = 1.55$$

$$(e) 5.50 \times 0.40 = 2.20$$

$$D_{\text{area}} = 0.5 \times 0.5 = 0.25$$

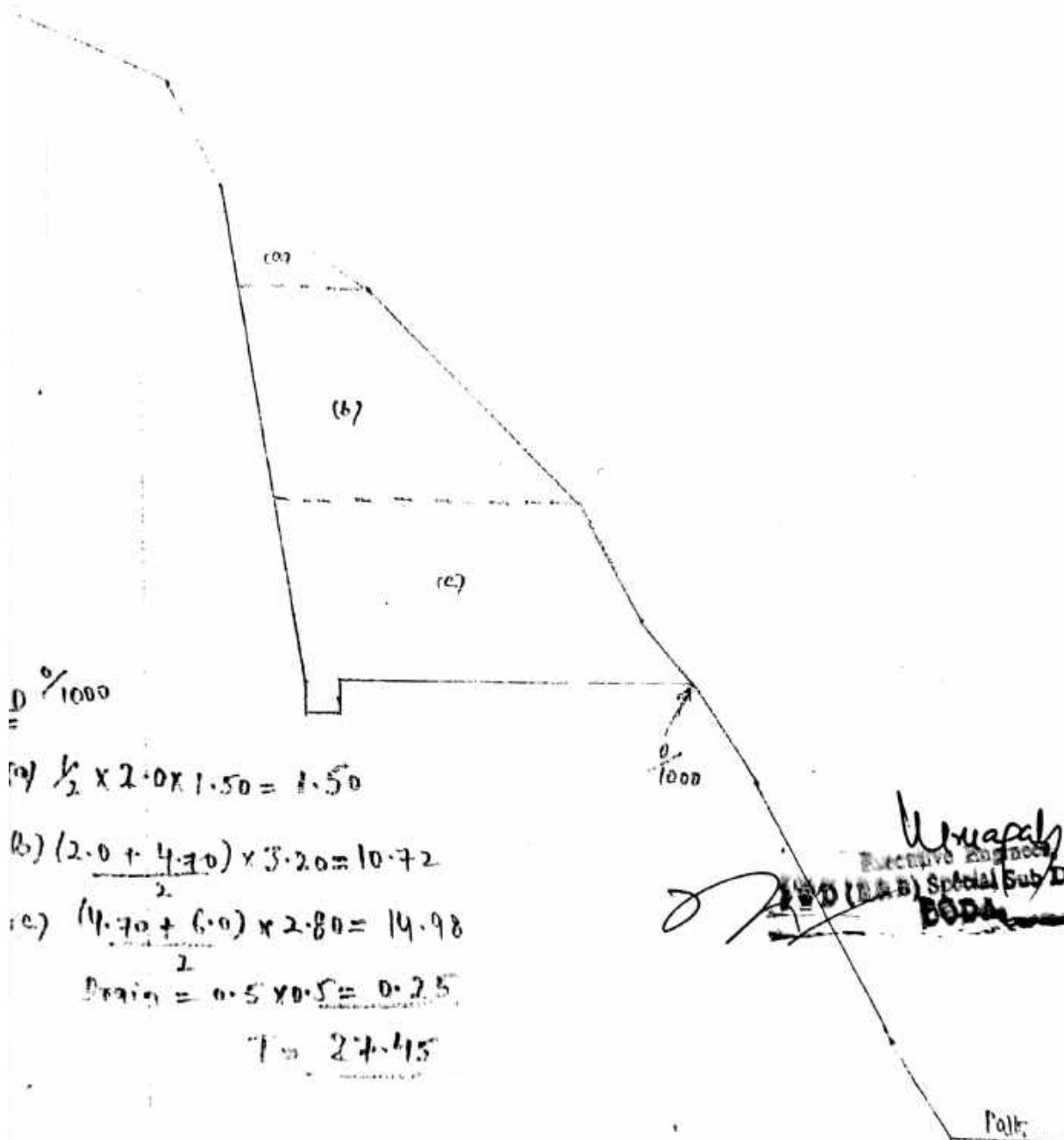
$$T = 15.82$$

[Handwritten signature]

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[Handwritten signature]
Executive Engineer,
PWD (R&B) Special Sub Division
DODA.

[Handwritten signature]
Executive Engineer,
PWD (R&B) Special Sub Division
DODA.



$\frac{0.5}{1000}$

$$(a) \frac{1}{2} \times 2.0 \times 1.50 = 1.50$$

$$(b) \frac{(2.0 + 4.70) \times 3.20}{2} = 10.72$$

$$(c) \frac{(4.70 + 6.0) \times 2.80}{2} = 14.98$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 27.45$$

Urugaly
Executive Engineer
P.W.D. (R.A.B.) Special Sub Division
BODA

#sup
P.W.D.
BODA

Nerugy
10/10/20

9/10
P.W.D. (R.A.B.) Special Sub Division
BODA

$$M = P \times \frac{1}{2.50}$$

$$(a) \frac{1}{2} \times 2.90 \times 1.60 = 2.32$$

$$(b) \frac{(1.90 + 3.30)}{2} \times 0.60 = 1.86$$

$$(c) \frac{(3.30 + 5.50)}{2} \times 0.40 = 3.68$$

$$D_{min} = 0.5 \times 0.5 = 0.25$$

$$T = 71.51$$

(a)

(b)

(c)

$\frac{1}{2.50}$

(a)

(b)

(c)

(d)

(e)

(f)

$\frac{1}{500}$

$$\times 0.70 \times 0.70 = 0.31$$

$$\frac{70 + 2.40}{2} \times 0.80 = 1.24$$

$$\frac{2.40 + 2.70}{2} \times 1.0 = 2.55$$

$$(2.70 + 4.50) \times 1.0 = 3.60$$

$$\frac{(4.50 + 5.40)}{2} \times 1.50 = 7.42$$

$$\frac{(5.40 + 6.0)}{2} \times 1.0 = 5.70$$

$$D_{min} = 0.5 \times 0.5 = 0.25$$

$$T = 21.07$$

Umapah
Executive Engineer,

PWD (R&B) Special Sub Division,
DODA.

$\frac{1}{500}$

Nazir
Sub/comm

Executive Engineer,

PWD (R&B) Special Sub Division,
DODA.

$$At = \frac{1}{2} \times \frac{1}{450}$$

$$(a) \frac{1}{2} \times 2.50 \times 1.0 = 1.25$$

$$(b) \frac{(2.50 + 4.80)}{2} \times 1.0 = 3.65$$

$$(c) \frac{(4.80 + 4.90)}{2} \times 1.0 = 4.85$$

$$(d) \frac{(4.90 + 6.0)}{2} \times 0.90 = 4.90$$

$$Drain = 0.50 \times 0.50 = 0.25$$

$$T = 16.48$$

(a)

(b)

(c)

(d)

1
750

(a)

(b)

(c)

(d)

$$\frac{1}{1000}$$

$$3.40 \times 3.40 = 5.78$$

$$\frac{(3.40 + 3.70)}{2} \times 1.0 = 3.55$$

$$\frac{(3.70 + 3.80)}{2} \times 2.0 = 7.50$$

$$\frac{(3.80 + 6.0)}{2} \times 1.0 = 4.90$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 21.98$$

$$\left(\frac{2}{0}\right) \frac{1}{1000}$$

Narayana

Subsar

Unnapah

Executive Engineer

(R & B) Special Sub Division

DORA

al

(R & B) Special Sub Division

DORA

At 100 250

$$(a) 1 \times 2.40 \times 1.40 = 3.36$$

$$(b) (1.40 + 4.00) \times 2.50 = 11.50$$

$$(c) \frac{(4.00 + 6.00)}{2} \times 1.50 = 7.50$$

$$\text{Perimeter} = 0.25$$

$$T = 21.49$$

(a)

(b)

(c)

2.50

(a)

(b)

(c)

2.50

$$1 \times 1.90 \times 0.50 = 0.47$$

$$\frac{1.40 + 2.40}{2} \times 1.50 = 3.45$$

$$\frac{2.40 + 6.00}{2} \times 1.0 = 4.35$$

$$\text{Perimeter} = 0.5 \times 0.5 = 0.25$$

$$T = 8.52$$

Signature

Signature

Nearby

Sub Area

Executive Engineer,

PWD (R&B) Special Sub Division,
BODA.

Executive Engineer,

PWD (R&B) Special Sub Division,
BODA.

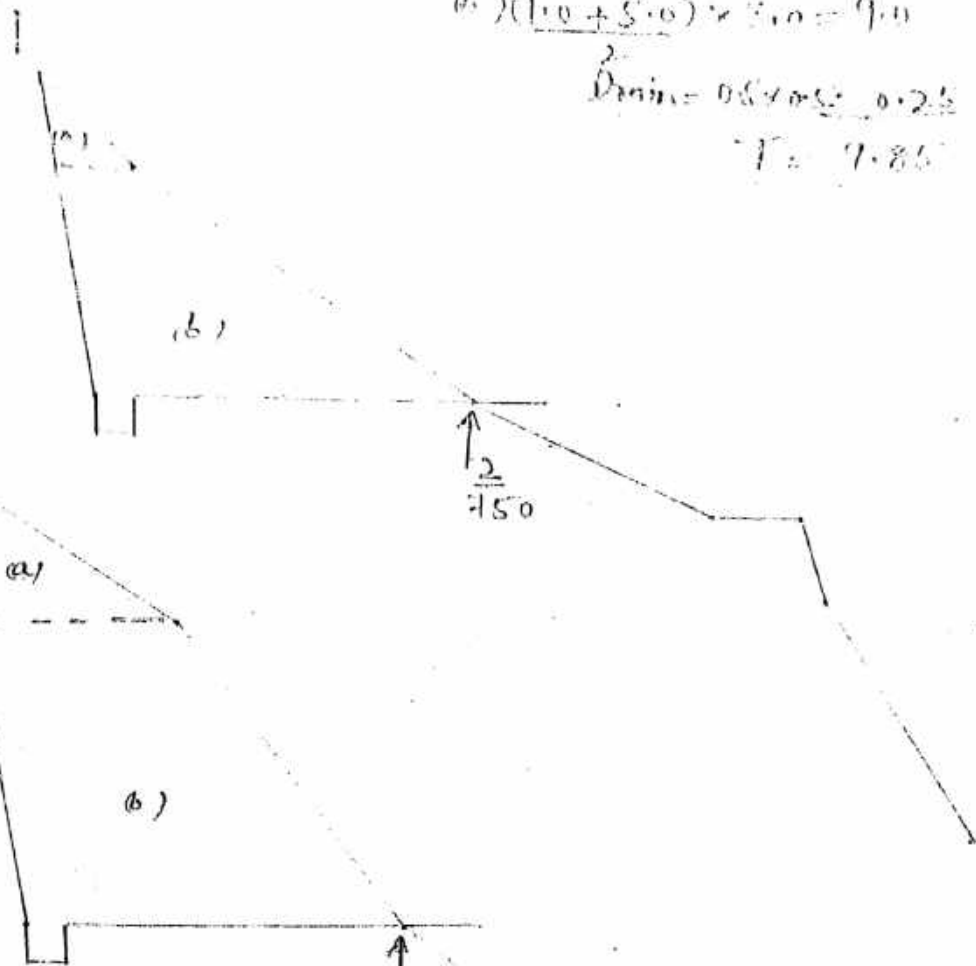
RD $\frac{2}{750}$

$$(a) \frac{1}{2} \times 1.0 \times 2.0 = 1.0$$

$$(b) (1.0 + 5.0) \times 5.0 = 30.0$$

$$\text{Drain} = \frac{30.0}{2} = 15.0$$

$$T = 7.85$$



RD $\frac{2}{1000}$

$$\frac{1}{2} \times 2.70 \times 2.0 = 2.70$$

$$(2.70 + 5.0) \times 4.0 = 30.80$$

$$\text{Drain} = \frac{30.80}{2} = 15.40$$

$$T = 18.35$$

Neeraj

10/10/2020

Handwritten signature

Handwritten signature

Executive Engineer,
P.W.D. (R&B) Special Sub Division,
BODA.

Executive Engineer,
P.W.D. (R&B) Special Sub Division,
BODA.

$$RD \frac{3}{250}$$

$$a) \frac{1}{2} \times 2.85 \times 3.0 = 4.275$$

$$b) \frac{(2.20 + 3.90)}{2} \times 0.50 = 1.625$$

$$c) \frac{(3.90 + 6.0)}{2} \times 2.50 = 12.525$$

$$D_{rain} = 0.5 \times 0.5 = 0.25$$

$$T = 18.425$$

(a)

(b)

(c)

$\frac{3}{250}$

$$RD \frac{3}{500}$$

$$\frac{1}{2} \times 4.0 \times 2.40 = 5.40$$

$$D_{rain} = 0.5 \times 0.5 = 0.25$$

$$T = 5.65$$

$\frac{3}{500}$

Executive Engineer,

R&B Special Sub Division,

DODA,

Neeraj

10/1/2022

Hojas

aj

Executive Engineer,

R&B Special Sub Division,

DODA,

$$0.1 \times 10 \times \frac{3}{43.0}$$

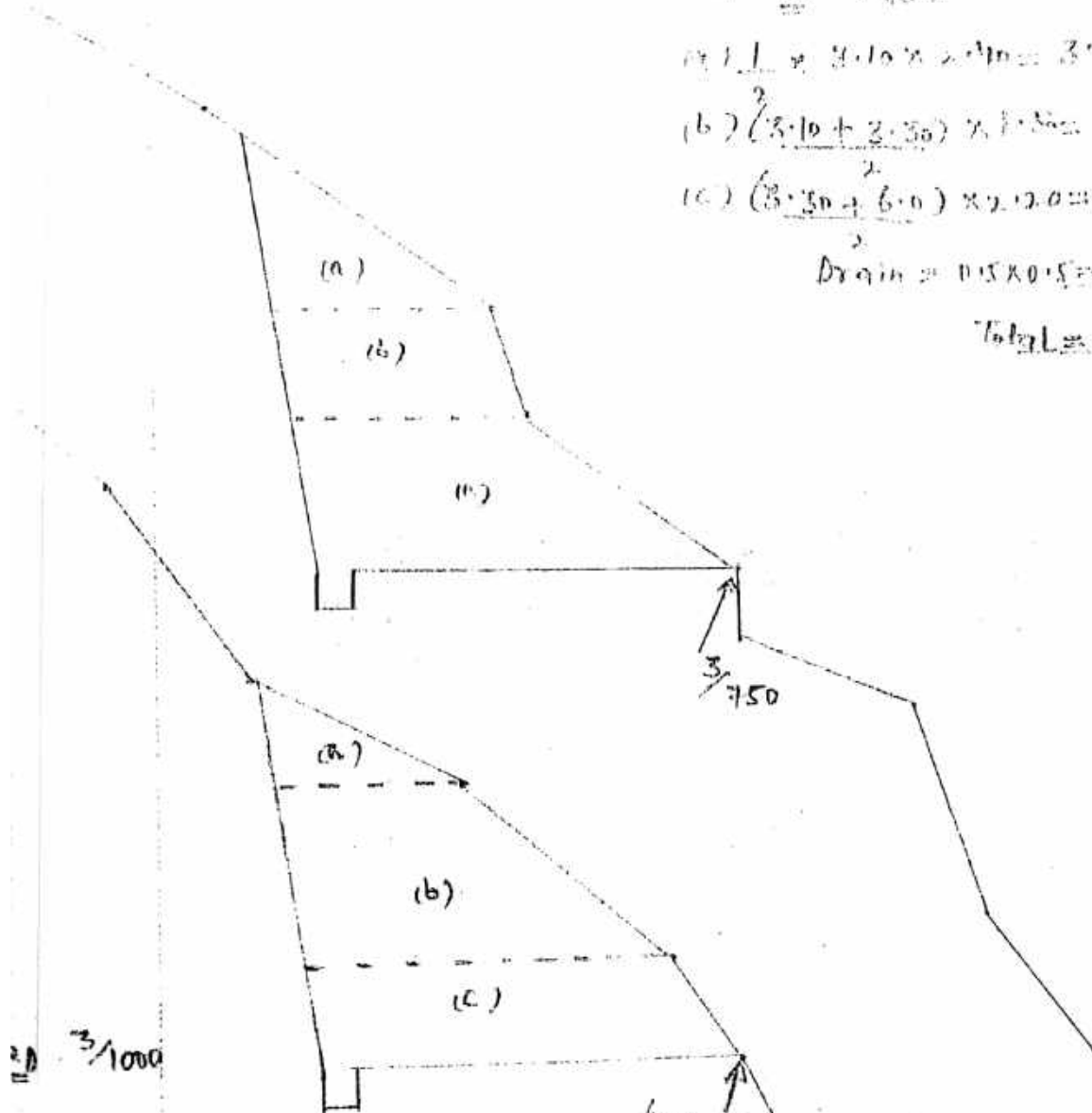
$$(a) 1.1 \times 3.10 \times 2.40 = 3.42$$

$$(b) \frac{(3.10 + 3.30) \times 1.50}{2} = 4.80$$

$$(c) \frac{(3.30 + 6.0) \times 2.20}{2} = 10.23$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$\text{Total} = 19.00$$



$$2.70 \times \frac{3}{1000}$$

$$\times 2.70 \times 1.50 = 2.02$$

$$\frac{2.70 + 5.20}{2} \times 2.50 = 9.87$$

$$\frac{(5.20 + 6.0) \times 1.50}{2} = 8.40$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 20.54$$

Drainage
1/2/2000

Executive Engineer,

FWD (R&B) Special Sub Division,
DODA.

Executive Engineer,

FWD (R&B) Special Sub Division,
DODA.



$$A1 = \frac{1}{2} \times 10.0 \times 4.0 = 20.0$$

$$A2 = \frac{1}{2} \times 7.0 \times 2.0 = 7.0$$

$$A3 = \frac{1}{2} (3.0 + 7.0) \times 3.0 = 15.0$$

$$A4 = \frac{1}{2} (3.0 + 5.0) \times 2.0 = 8.0$$

$$DRAIN = 0.5 \times 0.5 = 0.25$$

$$T = 18.05$$



$$A1 = \frac{1}{2} \times 10.0 \times 4.0 = 20.0$$

$$A2 = \frac{1}{2} \times 7.0 \times 2.0 = 7.0$$

$$A3 = \frac{1}{2} (3.0 + 7.0) \times 3.0 = 15.0$$

$$A4 = \frac{1}{2} (3.0 + 5.0) \times 2.0 = 8.0$$

$$DRAIN = 0.5 \times 0.5 = 0.25$$

$$T = 23.01$$

Executive Engineer,
FWD (R&B) Special Sub Division,
DODA.

Nura j
10/10/2019

Executive Engineer,
FWD (R&B) Special Sub Division,
DODA.

Asst. Engineer,
FWD (R&B) Special Sub Division,
DODA.

$$a) \frac{1}{2} \times 1.50 \times 2.50 = 1.875$$

$$b) \frac{1}{2} \times 1.50 \times 2.50 = 1.875$$

$$c) \frac{(1.50 + 4.50) \times 2.50}{2} = 7.50$$

$$d) \frac{(1.50 + 6.0) \times 4.50}{2} = 22.95$$

$$\text{Drain} = 0.57 \times 0.5 = 0.285$$

$$T = 30.42$$

(a)

(b)

(c)

$\frac{1}{2} \times 1.50$

(a)

(b)

(c)

$\frac{1}{2} \times 1.00$

$$\times 2.50 \times 2.10 = 2.62$$

$$\frac{2.50 + 4.30}{2} \times 1.0 = 3.40$$

$$\frac{(1.30 + 6.0)}{2} \times 2.0 = 10.30$$

$$\text{Drain} = \frac{0.5 \times 0.5}{2} = 0.125$$

$$T = 16.57$$

$\frac{(5.0)}{2} \times 1.00$

Umapathy
Executive Engineer

PWD (R&B) Special Sub Division,
DODA.

Nerrajse

Sub Engineer

Harjeet

Ch
Executive Engineer,
PWD (R&B) Special Sub Division,
DODA.

$$\text{H.F.D. } \frac{3}{250}$$

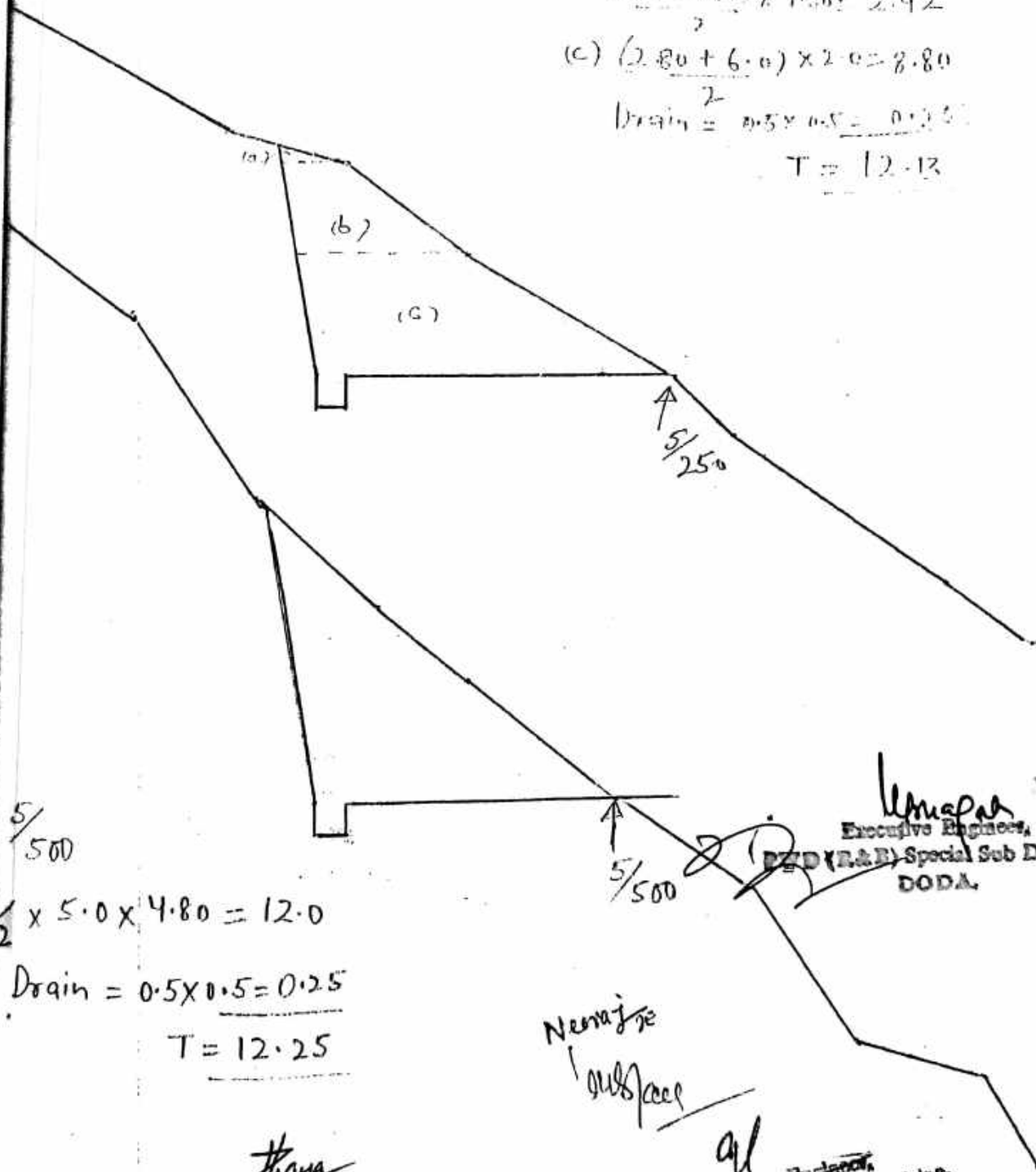
$$(a) \frac{1}{2} \times 1.10 \times 0.30 = 0.16$$

$$b: \frac{(0.10 + 2.00) \times 1.50}{2} = 2.92$$

$$(c) \frac{(2.80 + 6.0) \times 2.0}{2} = 8.80$$

$$\text{Drain} = \frac{2}{0.5 \times 0.5} = 0.25$$

$$T = 12.13$$



$$\frac{5}{500}$$

$$\frac{1}{2} \times 5.0 \times 4.80 = 12.0$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

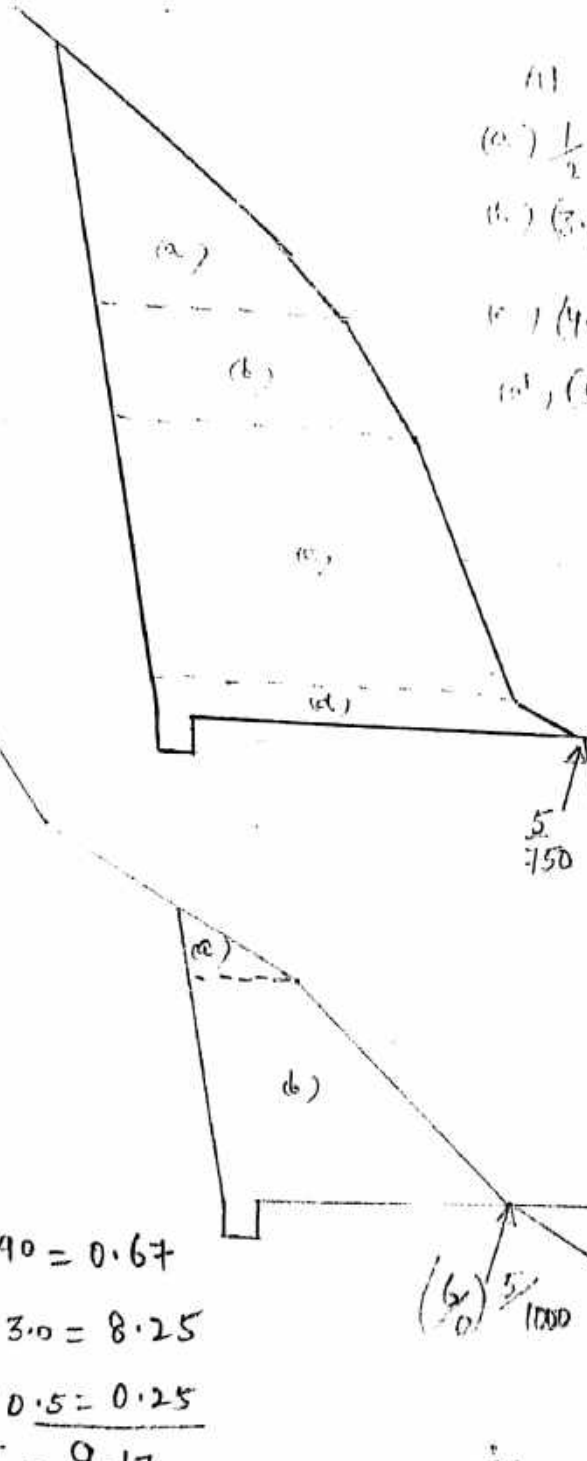
$$T = 12.25$$

Umapar
Executive Engineer,
PWD (R&B) Special Sub Division,
DODA.

Nemajre
10/8/2022

al
Executive Engineer,
PWD (R&B) Special Sub Division,
DODA.

Shay
PWD (R&B) Special Sub Division,
DODA.



At PD $\frac{5.75}{750}$

(a) $\frac{1}{2} \times 3.40 \times 3.50 = 5.95$

(b) $\frac{(3.40 + 4.20)}{2} \times 1.50 = 5.85$

(c) $\frac{(4.20 + 5.0)}{2} \times 3.50 = 16.10$

(d) $\frac{(5.0 + 6.0)}{2} \times 0.50 = 2.75$

Drain = $0.5 \times 0.5 = 0.25$

$T = 30.15$

1000
 $\frac{1}{2} \times 1.50 \times 0.90 = 0.67$
 $\frac{(1.50 + 4.0)}{2} \times 3.0 = 8.25$
 Drain = $0.5 \times 0.5 = 0.25$
 $T = 9.17$

(b) $\frac{5}{1000}$

Neorgo
 Subspace

Umapal
 Executive Engineer,
 P.W.D. (R&B) Special Sub Division,
 DODA.

48
 Executive Engineer,
 P.W.D. (R&B) Special Sub Division,
 DODA.

Handwritten signature and initials.

$$A1 \quad R.D. \quad \frac{6}{2.50}$$

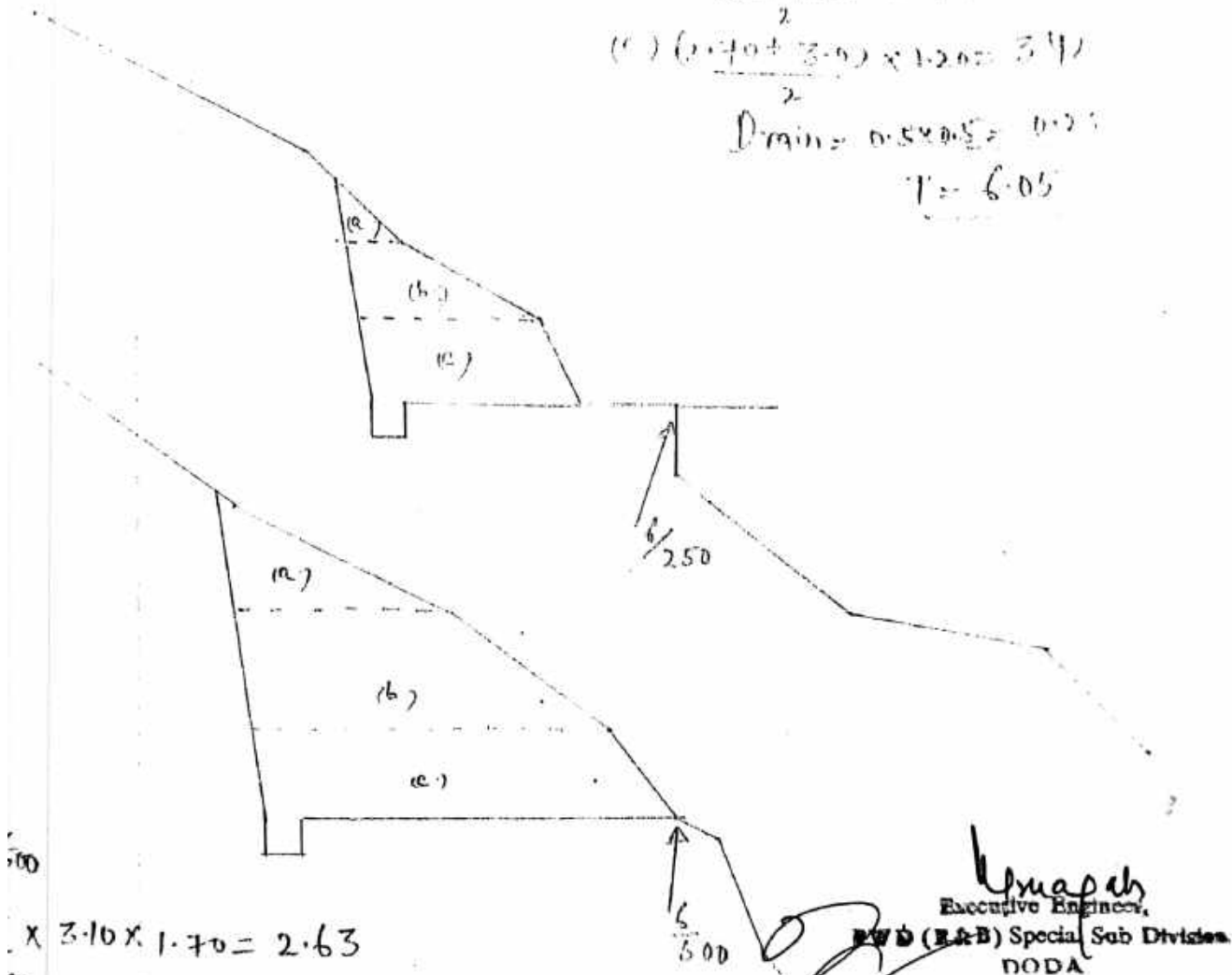
$$a) \quad \frac{1}{2} \times 0.90 \times 1.70 = 0.765$$

$$(b) \quad \frac{(0.90 + 2.70) \times 1.70}{2} = 1.92$$

$$(c) \quad \frac{(0.70 + 3.0) \times 1.20}{2} = 3.12$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 6.05$$



$$3.10 \times 1.70 = 2.63$$

$$\frac{(3.10 + 5.20) \times 1.70}{2} = 7.05$$

$$\frac{(5.20 + 6.0) \times 1.30}{2} = 7.28$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 17.21$$

Near the
subway

K. mapach
Executive Engineer,
PWD (R&B) Special Sub Division,
DODA

al
Executive Engineer,
PWD (R&B) Special Sub Division,
DODA

Signature

$$AD \text{ RD } \frac{6}{750}$$

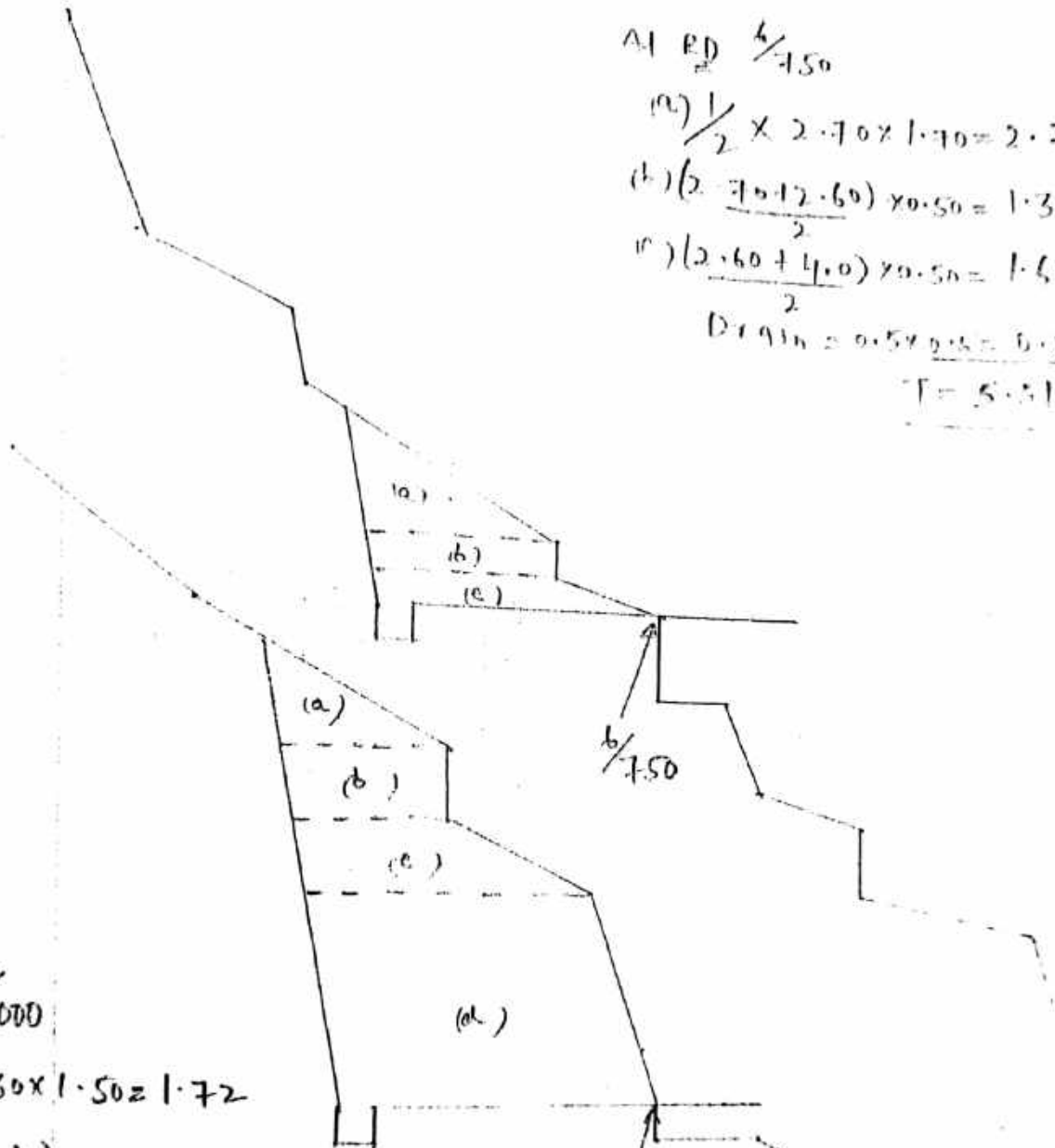
$$(a) \frac{1}{2} \times 2.70 \times 1.70 = 2.29$$

$$(b) \frac{(2.70 + 2.60)}{2} \times 0.50 = 1.32$$

$$(c) \frac{(2.60 + 4.0)}{2} \times 0.50 = 1.65$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 5.51$$



$$RD \frac{6}{1000}$$

$$\frac{1}{2} \times 2.30 \times 1.50 = 1.72$$

$$\frac{(1.30 + 2.10)}{2} \times 1.0 = 2.20$$

$$\frac{(2.10 + 4.0)}{2} \times 1.0 = 3.05$$

$$\frac{(4.0 + 4.50)}{2} \times 3.0 = 12.75$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 19.97$$

$$\left(\frac{7}{0}\right) \frac{6}{1000}$$

Neeraj

10/10/2020

Unmesh

PWD (R&B) Special Sub Division
DODA

Handwritten signature

PWD (R&B) Special Sub Division
DODA

Handwritten signature

Handwritten signature
PWD (R&B) Special Sub Division
DODA

A-1 RD 7/250

$$(a) \frac{1}{2} \times 5.60 \times 4.60 = 12.87$$

$$(b) \frac{(5.60 + 6.0) \times 1.0}{2} = 5.80$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 18.68$$

(c)

(d)

7/250

1/500

RD 7/500

$$\frac{1}{2} \times 6.0 \times 5.30 = 15.90$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 16.15$$

Neeraj

02/05/2021

Executive Engineer,
PWD (R&B) Special Sub Division,
DODA

4/1
Executive Engineer,
PWD (R&B) Special Sub Division,
DODA

Asst. Engineer,
PWD (R&B) Special Sub Division,
DODA

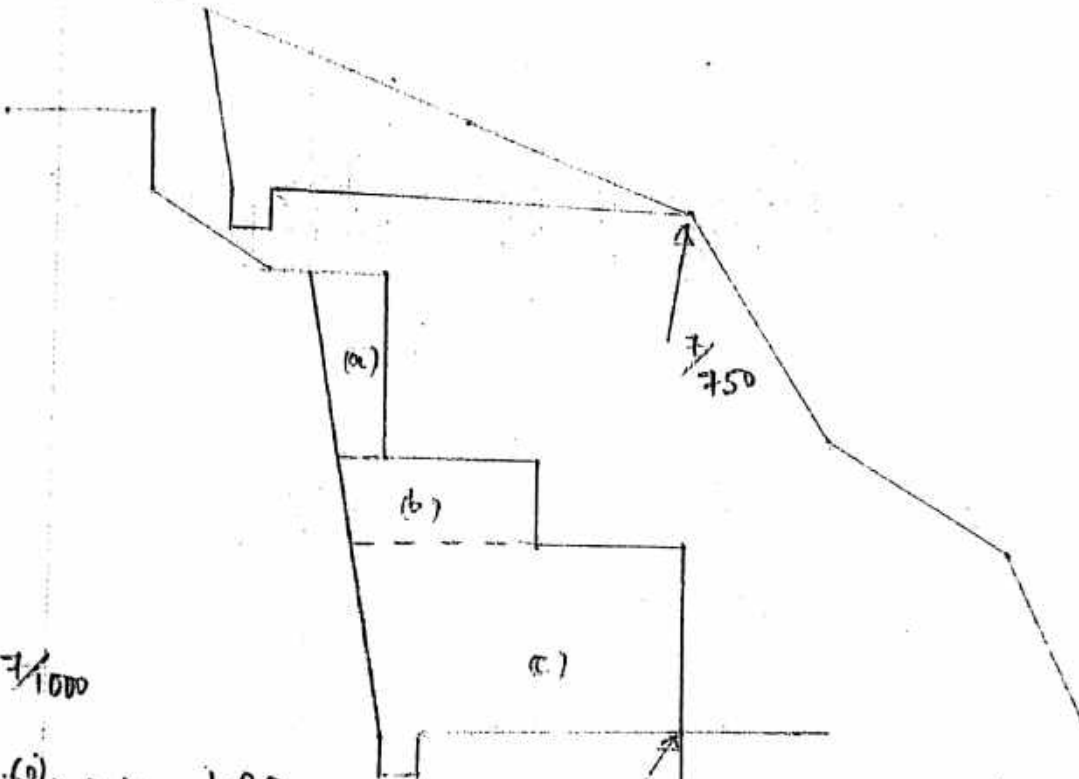
02/05/2021

$$A1 RD \frac{7}{750}$$

$$\frac{1}{2} \times 6.0 \times 2.30 = 6.90$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 7.15$$



$$A RD \frac{7}{1000}$$

$$\frac{(1.0 + 0.6)}{2} \times 2.40 = 1.92$$

$$\frac{(2.60 + 2.40)}{2} \times 1.10 = 2.75$$

$$\frac{(4.40 + 4.0)}{2} \times 2.50 = 10.50$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 15.42$$

$$\frac{(8/6)}{7/1000}$$

Unnapah
Executive Engineer,
P.W.D. (R & B) Special Sub Division,
DODA.

Neeraj
T. Singh

Al
Executive Engineer,
P.W.D. (R & B) Special Sub Division,
DODA.

Signature

At RD $\frac{8}{250}$

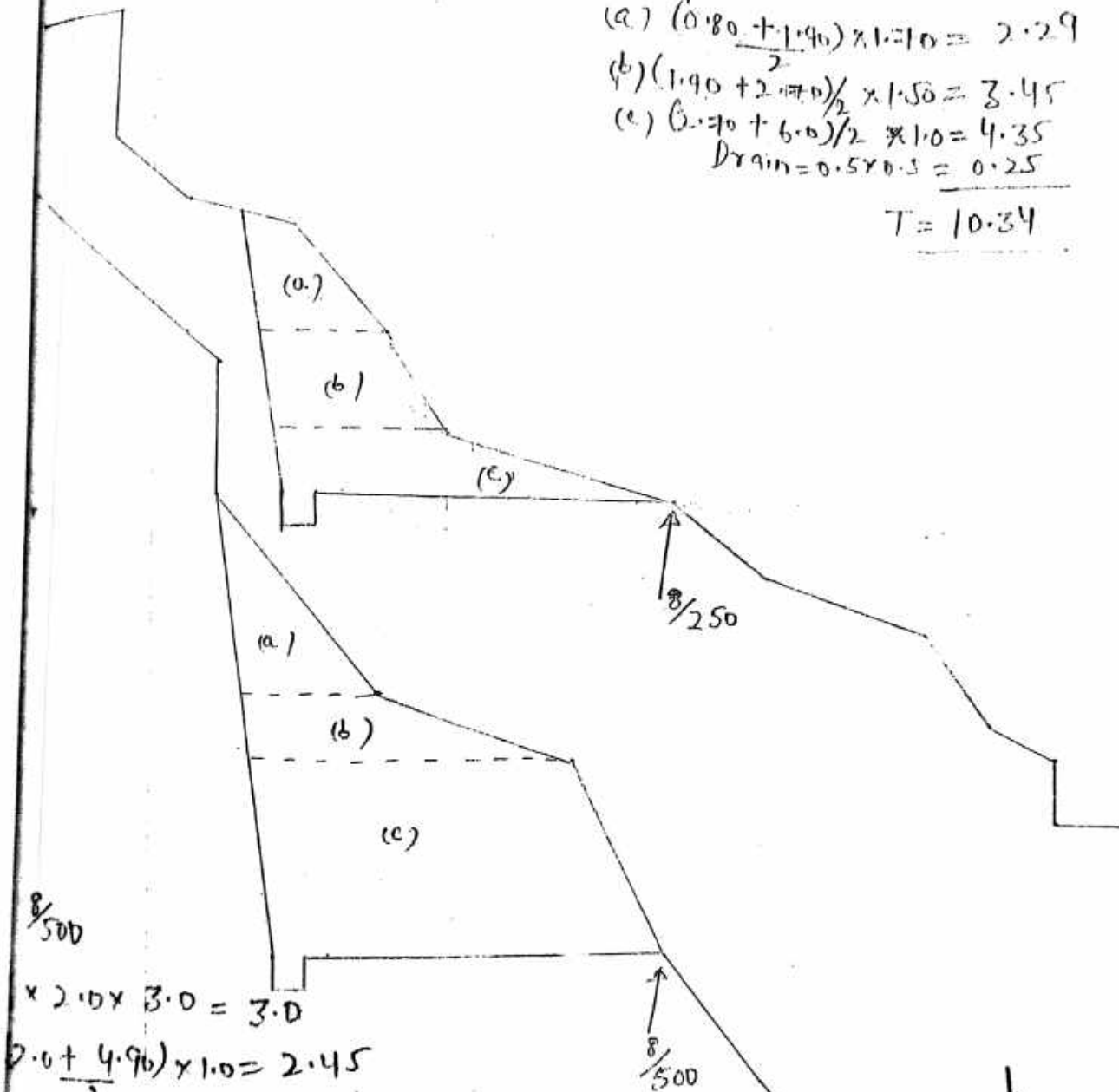
$$(a) \frac{(0.80 + 1.40)}{2} \times 1.0 = 2.29$$

$$(b) \frac{(1.40 + 2.40)}{2} \times 1.50 = 3.45$$

$$(c) \frac{(2.40 + 6.0)}{2} \times 1.0 = 4.35$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 10.34$$



$\frac{8}{500}$

$$\times 2.0 \times 3.0 = 3.0$$

$$\frac{2.0 + 4.90}{2} \times 1.0 = 2.45$$

$$\frac{(4.90 + 6.0)}{2} \times 3.0 = 16.35$$

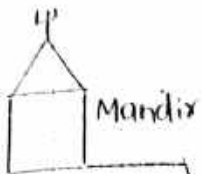
$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 22.05$$

Neeraj
DOD

Unnayan
Executive Engineer,
P.W.D. (R.B.) Special Sub Division,
DODA

gl
Executive Engineer,
P.W.D. (R.B.) Special Sub Division,
DODA

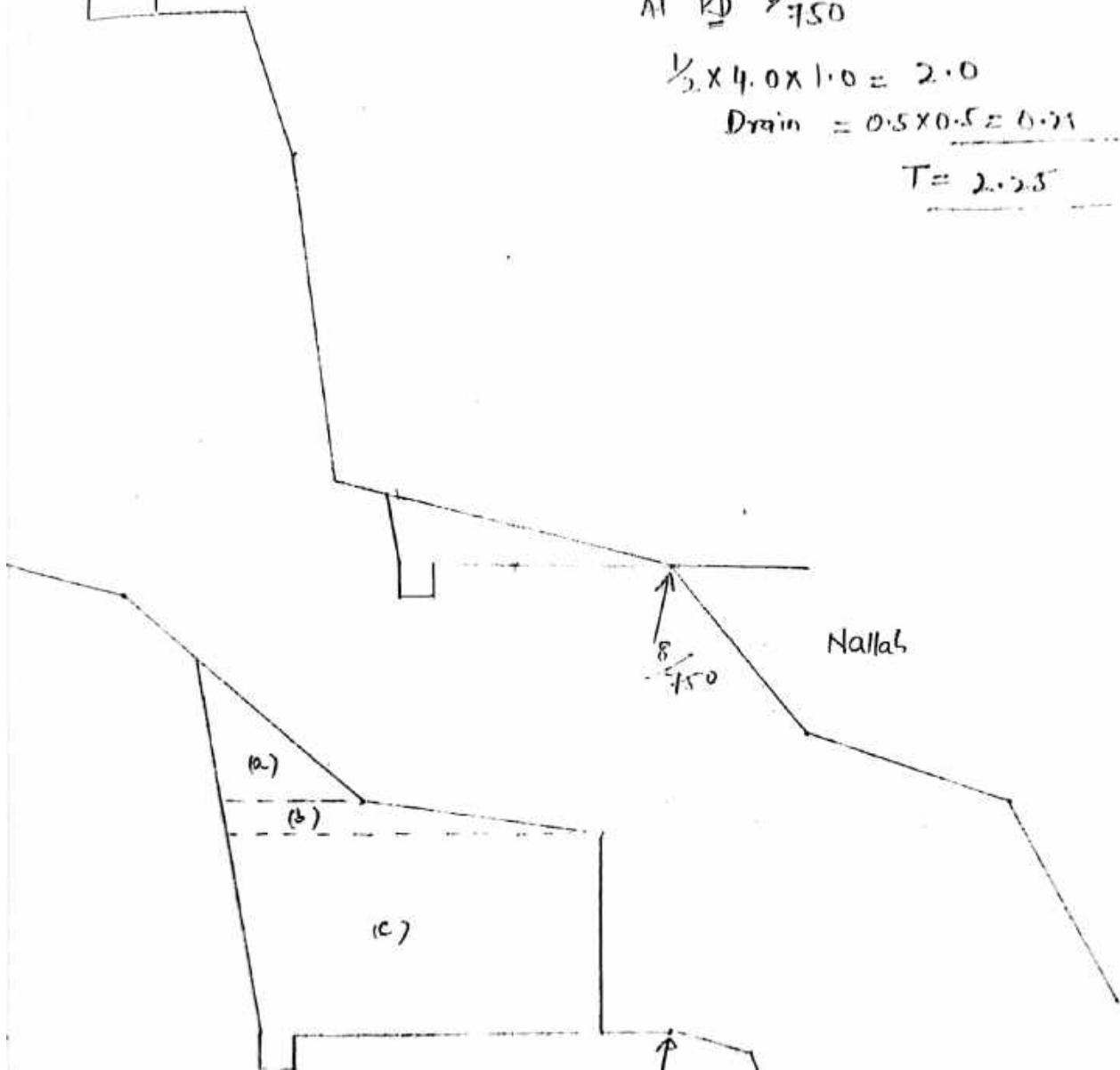


$$AI \quad RD \quad \frac{8}{150}$$

$$\frac{1}{2} \times 4.0 \times 1.0 = 2.0$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 2.25$$



$$\times 2.10 \times 2.10 = 2.20$$

$$\frac{.10 + 5.50}{2} \times 0.50 = 1.40$$

$$\frac{5.0 + 5.0}{2} \times 3.0 = 15.75$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 20.10$$

$$\left(\frac{9}{10}\right) \frac{3}{1000}$$

Neeraj Singh
Sutgar

Umapati
Executive Engineer,
W.D. (K.A.D.) Special Sub Division,
DODA.

46
Executive Engineer,
W.D. (K.A.D.) Special Sub Division,
DODA.

At RD 9/250

$$(a) \frac{1}{2} \times 1.60 \times 1.60 = 0.88$$

$$(b) \frac{(1.60 + 5.60) \times 4.00}{2} = 15.20$$

$$D_{min} = 0.5 \times 0.5 = 0.25$$

$$T = 16.33$$

(a)

(b)

9/250

9/500

9/500

$$6.0 \times 4.80 = 14.40$$

$$D_{in} = 0.5 \times 0.5 = 0.25$$

$$T = 14.65$$

Executive Engineer,

PWD (R&B) Special Sub Division

DODA

Neeraj

10/10/21

42

Executive Engineer,
PWD (R&B) Special Sub Division
DODA

PTV

Ty
Jha

#

Executive Engineer
PWD (R&B) Special Sub Division
DODA

At RD $\frac{9}{750}$

$$\frac{1}{2} \times 6.0 \times 5.20 = 15.60$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 15.85$$

$\frac{9}{750}$

At RD $\frac{9}{1000}$

$$\frac{1}{2} \times 6.0 \times 2.20 = 6.60$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 6.85$$

$(\frac{11}{10}) \frac{9}{1000}$

Neeraj

10/10/2021

Executive Engineer,
PWD (E & S) Special Sub Division,
DODA

$$A1 \quad R.D. \quad 10/250$$

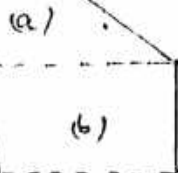
$$(a) \quad \frac{1}{2} \times 2.70 \times 2.10 = 2.83$$

$$(b) \quad \frac{(2.70 + 2.40)}{2} \times 1.50 = 3.82$$

$$(c) \quad \frac{(2.40 + 6.0)}{2} \times 2.50 = 10.50$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 17.40$$



(c)

(a)

(b)

(c)

(d)

10/250

10/580

Neeraj
'Raj'

Executive Engineer,

PWD (R&B) Special Sub Division,
DODA.

Executive Engineer,
PWD (R&B) Special Sub Division,
DODA.

$$R.D. \quad 10/500$$

$$\frac{(2.50 + 2.30)}{2} \times 1.20 = 2.88$$

$$(2.30 + 3.70) \times 0.30 = 0.90$$

$$(3.70 + 6.20) \times 3.50 = 17.32$$

$$(6.20 + 6.0) \times 1.0 = 6.10$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 27.45$$

#

Signature

A-1 RD $\frac{10}{7.50}$

$$(a) \frac{1}{2} \times 1.20 \times 0.70 = 0.42$$

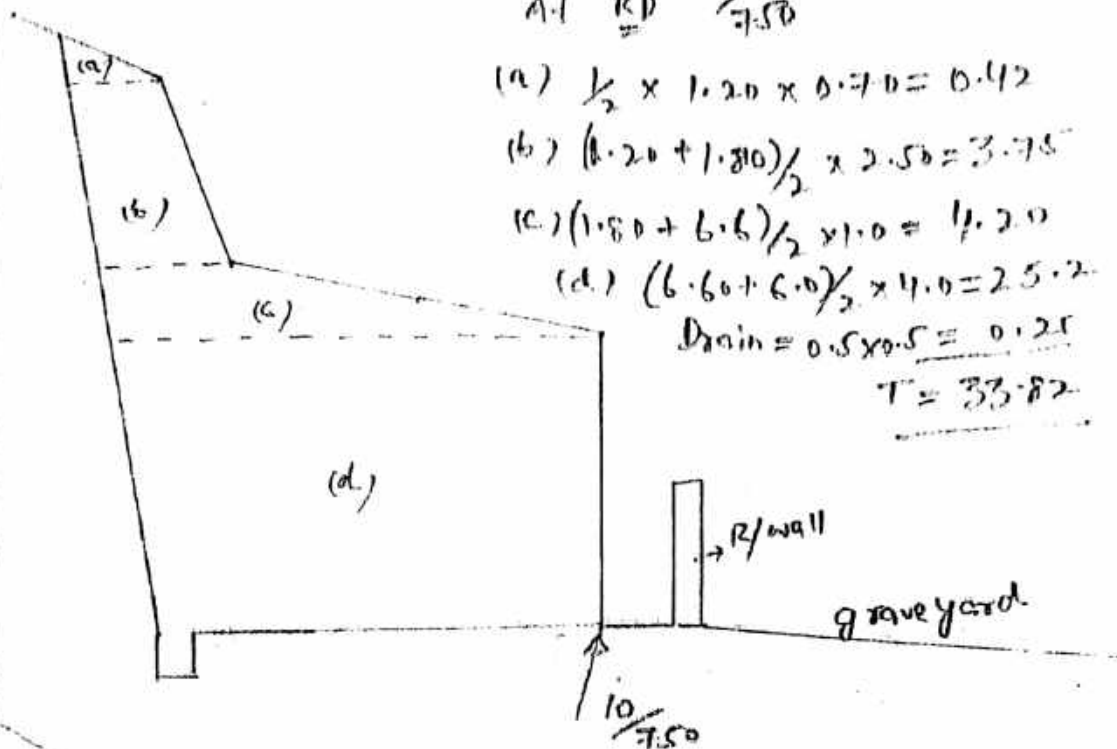
$$(b) \frac{(1.20 + 1.80)}{2} \times 2.50 = 3.75$$

$$(c) \frac{(1.80 + 6.6)}{2} \times 1.0 = 4.20$$

$$(d) \frac{(6.60 + 6.0)}{2} \times 4.0 = 25.2$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 33.82$$



RD $\frac{10}{1000}$

$$\frac{1}{2} \times 3.20 \times 2.40 = 3.84$$

$$\frac{(3.20 + 3.60)}{2} \times 2.0 = 6.80$$

$$\frac{(3.60 + 6.0)}{2} \times 0.60 = 2.88$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 13.77$$

$\left(\frac{11}{6}\right) \frac{10}{1000}$

Neeraj
cell

Executive Engineer
PWD (R&B) Special Sub Division
DODA

Executive Engineer
PWD (R&B) Special Sub Division
DODA

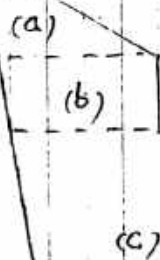
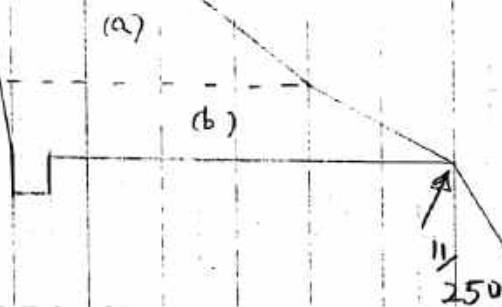
$$RD \frac{11}{250}$$

$$(a) \frac{1}{2} \times 4.20 \times 3.50 = 7.35$$

$$(b) (4.20 + 6.0) \frac{1}{2} \times 1.0 = 5.10$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 12.70$$



$$\frac{11}{500}$$

$$x 2.20 \times 1.40 = 1.54$$

$$(2.2 + 2.0) \frac{1}{2} \times 1.0 = 2.10$$

$$(2.0 + 6.0) \frac{1}{2} \times 3.0 = 12.0$$

$$Drain = 0.5 \times 0.5 = 0.25$$

$$T = 15.89$$

Umapah
Executive Engineer,
PWD (R&B) Special Sub Division
DODA.

Neeraj
1/10/2011

gl
Executive Engineer,
PWS (R&B) Special Sub Division
DODA.

[Signature]
PWS
DODA

$$R_1 = 11/750$$

$$(a) \frac{1}{2} \times 1.70 \times 0.30 = 0.25$$

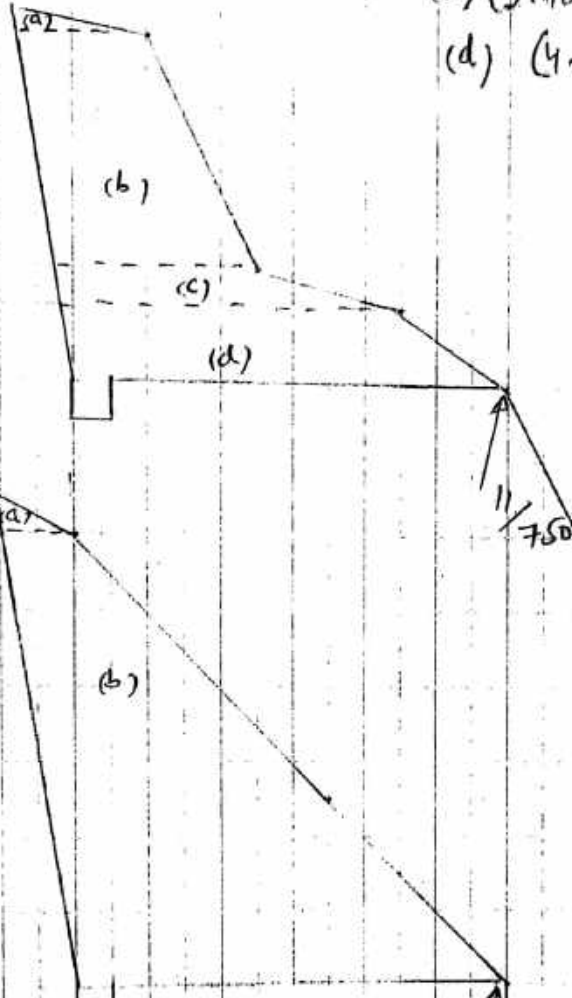
$$(b) (1.70 + 2.70) \frac{1}{2} \times 3.0 = 6.60$$

$$(c) (2.70 + 4.70) \frac{1}{2} \times 0.50 = 1.85$$

$$(d) (4.70 + 6.0) \frac{1}{2} \times 1.0 = 5.35$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 14.30$$



$$R_1 = 11/1000$$

$$(a) \frac{1}{2} \times 1.0 \times 0.5 = 0.25$$

$$(b) (1.0 + 6.0) \frac{1}{2} \times 6.0 = 21.0$$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

$$T = 21.50$$

$$(12/10) 11/1000$$

Neeraj
Sharma

[Signature]
Executive Engineer
P.W.D. (R & B) Special Sub Division
DODA.

[Signature]
Executive Engineer
P.W.D. (R & B) Special Sub Division
DODA.

[Signature]
P.W.D.
DODA.

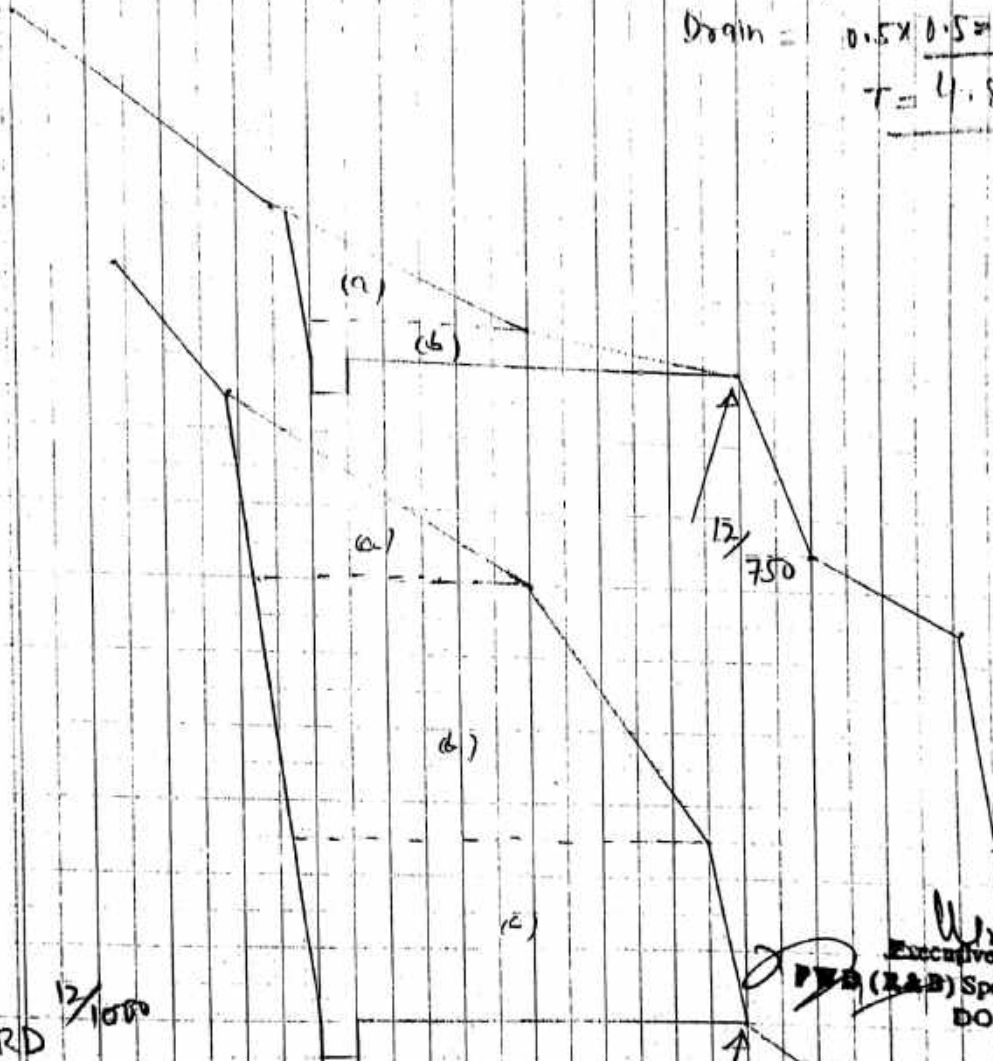
RD 12/150

$$(d) \frac{1}{2} \times 340 \times 1.50 = 2.32$$

$$(b) (3.10 + 6.10) / 2 \times 0.5 = 2.27$$

Dogain = $0.5 \times 0.5 = 0.25$

$$r = 4.8'$$



RD $\frac{12}{1000}$

$$(a) \frac{1}{2} \times 3.80 \times 2.50 = 4.75$$

$$(b) (3.80 + 5.80) / 2 \times 3.50 = 16.80$$

10) $(5.80 + 6.0) \div 2 \times 2.50 = 14.75$

$$\text{Drain} = 0.5 \times 0.5 = 0.25$$

7:36.55

Executive Engineer
P&S (R&S) Special Sub Division,
DODA

$$\left(\frac{13}{10}\right)^{12} \frac{1}{1000}$$

Neuro. 55
'0147

40

RECEIVED
(H.A.B) Special Sub
DOD.

To

Dated the 27th January,

The Secretary,
 Government of Jammu & Kashmir,
 Public Works Department (P.W.D.),
 Jammu & Kashmir.

Subject: Sanction of Central Road Fund Scheme (CRF): Administrative approval to 5 Nos. of road works amounting to Rs. 97.86 Crore during financial Year 2018-19 in the State of Jammu & Kashmir.

(Job No. CRF-J&K-2018-19/303-307)

Sir,

I am directed to refer to Government of J&K letter dated 13.07.2018, forwarding therein the priority list of works under CRF for Jammu & Kashmir during current financial year and to convey the administrative approval of the President for an amount of Rs. 97.86 (Rupees ninety-seven crore and eighty-six lakhs only) for the following 5 works along with their job nos. subject to satisfying the criteria required as per CRF rules regarding length, category of road, availability of land etc and also subject to relaxation of BOS ratio of 9.77 against the permissible BOS ratio of 1.00 for hill roads and with the condition that under no circumstances the amount be revised on the account of instant approval and that the balance amount for completion of work will be provided by the State.

S.No.	District	Name of the work	Estimate cost (Rs. in Crore)	Job No.
1.	Road	Construction of Randa to Haroon road	18.86	CRF-J&K-2018-19/303
2.	Jammu	Upgradation and widening of road link from RCC bridge Shambharan to Baskal via Ashroor Bus Stand and to Panam Chowk and all the link	20.00	CRF-J&K-2018-19/304
3.	Rajouri	Bhalwal Pull border road	21.00	CRF-J&K-2018-19/305
4.	Doda	Construction of road from Baramulla to Bhalwal via Baramulla	18.00	CRF-J&K-2018-19/306
5.	Rajouri	Boyal Chumbdya road connecting Shankh Gool Nathal Barot Howalun	20.00	CRF-J&K-2018-19/307
		Total	97.86	

[Handwritten signatures and dates]
 25/1/19
 24/1/19
 28/1/19

2. These proposals may be considered with the following conditions:

(i) State Government shall accord technical and financial sanction of the above project within a period of four months from the date of administrative approval of the works falling which the works shall be deemed to have been disapproved unless revised administrative approval of the Government of India is obtained.

(ii) The period of the completion of the projects is not to exceed 24 months including period for tendering. In any case this time schedule is to be strictly complied with.

(iii) No excess cost beyond 10% shall be permissible and the excess, if any, over and above 10%, shall have to be arranged by State PWD from their own resources. No revised estimate will be considered in this scheme.

(iv) The standards, design and specifications of the works shall follow the relevant IRC/MORTH guidelines codes and specifications which may be taken care of at the state of technical sanction.

(v) No agency charges will be payable for the execution of the works under the scheme.

(vi) The State Government has to submit Quarterly Progress Reports of the above works sanctioned in Form II & III enclosed with Central Road Fund (State Roads) Rules, 2007 effective from 10th July, 2007. The progress report should reach this Ministry not later than one month from the date of ending of each quarter.

(vii) The display boards on development activities of the work shall be made as per guidelines issued vide Ministry's letter no. RW/III-33044/10/2002-5&R(R) dated 26th May, 2003.

3. The estimate for above work includes provisions for contingencies at the rate of 3%, quality control at the rate of 1% and work charged establishment at the rate of 1.5% subject to the condition that out of these provisions funds to the extent of 3% of the cost of the work shall be placed at the disposal of the Regional Officer of this Ministry appointed by the Central Government or any other officer authorized for the State or Union Territory for incurring expenditure on hiring manpower and execution of quality control of the works.

4. The State Government shall adopt the e-tendering system on mandatory basis for execution of above works falling which the expenditure incurred on the work will not be reimbursed by the Ministry.

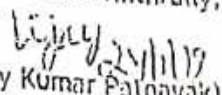
5. The State Government will be required to furnish the utilization certificate in Form I enclosed with the Central Road Fund (State Roads) Rules, 2007 duly verified by the Regional Officer of this Ministry. Further installments of funds will be released to the extent of expenditure incurred and physical progress of the works.

6. The State Government shall furnish completion certificate duly vetted by Audit after completion of work. Maintenance and upkeep of the projects after completion will be the responsibility of the State Government of Jammu & Kashmir.

7. At the end of each year, the State Government should furnish a work-wise certificate by 30th April, every year regarding utilization of amount allocated from Central Road Fund for the work under scheme.

8. The expenditure is debitable under the Head "3601" Road & Bridges-Grants in Aid to State Govt. (Major Head)- 08- Other Transfer/Grants to States (Sub Major Head) - 08.108- Grant from Central Road Fund (Minor Head)- Grants for State Roads-01,00,35 Grants for creation of Capital Assets under the Demand No.81- Ministry of Road Transport & Highways for the year 2018-2019.

Yours faithfully,


(Vijay Kumar Patnayak)

Under Secretary to the Government of India
Tel:-011-23739074

Forwarded for information and necessary action to:

1. The Chief Engineer (NH), PWD, Jammu & Kashmir
2. The Accountant General, Govt. of Jammu & Kashmir
3. The Chief Controller of Accounts, IDA Building Jamnagar House, New Delhi
4. The Regional Pay & Accounts Officer, Ministry of Road Transport & Highways, 6th Floor, Kendriya Sadan, Sector- 9A, Chandigarh
5. The Principal Director of Audit, Economics and Services Ministries, IP Estate, New Delhi.
6. Regional Officer, M/o Road Transport & Highways, Chandigarh.
7. Section officer, W&A Section.

Vijay Kumar Patnayak

(Vijay Kumar Patnayak)

Under Secretary to the Government of India

Copy to:

1. PS/OSD to Hon'ble Minister (RT&H)
2. CE(Planning)/CE(Z-II), SE (Z-II), CE(P&M) /W&A Section/TF II Fin Wing/Guard folder.

(Sushila Daundiyal)
Section Officer (Zone-II)
Tel:-011-23716598