



Office of DEPUTY CONSERVATOR OF FORESTS
SUKET FOREST DIVISION; SUNDERNAGAR DISTT. MANDI (H.P.) 175002
G- mail: dfosuket123@gmail.com Ph. No. 01907-267228
PHONE & Fax 01907 - 267228, e.mail – dfosuket123@gmail.com

No./ FP/HP/ROAD/49449/2020./ E-Memo

Date./Suket./ As per E-Signed.

From: D.C.F. Suket.

To: C.F. Mandi.

Subject: Diversion of 10.6019 ha. of forest land in favour of HPPWD for construction of Dharli to Balag Road Km 0/00 to 18/900 within the jurisdiction of Suket Forest Division Distt. Mandi, HP (Online – Proposal No. FP/HP/Road/49449/2020).

Memo

Kindly refer to the observations raised by **Nodal Officer-cum-Pr.CCF o/o Pr.CCF (H.P.) Shimla vide No. Ft. 48-3971/2019/ (FCA) dated 17/01/2026** in the above cited case.

The point-wise reply to the observation in respect of Suket Forest Division is as under: -

Sr. No.	EDS/Observations	Reply of Observations
1.	<p>With reference to Observation No.4 GoI has asked to furnish details of mitigation measure to control soil erosion/landslide during and after project execution. Further, the soil and Moisture Conservation Plan, as prescribed under para 1.22 (11) of the Van Sanrakshan Evam Samvardhan) Adhiniyam 1980 has not yet been uploaded.</p>	<p>The User Agency acknowledges the concerns related to slope stability and soil erosion in Suitable the proposed diversion mitigation measures are being incorporated to prevent accelerated soil erosion and landslide both during and after project execution. The proposed measures include:</p> <p>1. Structural Measures: Construction of retaining walls/breast walls and toe walls at vulnerable stretches to stabilize the slope.</p> <p>Adoption of bench cutting instead of vertical cutting to maintain a safe slope gradient.</p> <p>Provision of gabion structures, check dams, and contour barriers where necessary.</p> <p>2. Drainage and Runoff Management: Formation of well-designed catch drains, side drains, and cross drains to channelize runoff safely</p> <p>Construction of cut off drains above excavation zones to prevent surface water inflow</p> <p>Ensuring proper outfall points to avoid waterlogging and scouring</p> <p>3. Bio-engineering Measures: Grass turfing, brush layering, hydro-seeding, and plantation of deep rooted native shrubs and trees on exposed slopes.</p> <p>Adoption of vegetative barriers along the slope to minimize sheet erosion</p> <p>Use of coir matting/jute netting for temporary surface stabilization during construction.</p>



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		<p>4. Construction phase Safeguards</p> <p>Minimizing open excavation during monsoon periods.</p> <p>Storage of excavated material only at designated safe locations with retaining measures.</p> <p>Regular monitoring of slope behavior by field engineers.</p> <p>5. Post-construction Restoration: Immediate biological restoration of disturbed areas.</p> <p>Long-term monitoring and maintenance of drainage structures and slope stabilization measures.</p> <p>Further, as required, the Soil and Moisture Conservation Plan (SMC Plan) is being prepared in accordance with Para 1.22 (ii) of the Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980, wherever applicable The SMC Plan will include detailed site-specific measures, maps, implementation timelines. estimates, and cost</p> <p>The User Agency assures full compliance with all guidelines and will adopt all necessary measures to ensure environmental and slope stability throughout the project lifecycle. "The Soil and Moisture Conservation (SMC) Plan has already been uploaded on the PARIVESH Portal under Part-I, 'Additional Information Details', at Column No. 9 for perusal and necessary action. The same has also been enclosed with this office letter No. 10341-43 dated 12-12-2025 and has already been the PARIVESH Portal under Part-I, uploaded on 'Additional Information Details', at Column No. 14."</p>
2.	<p>In respect of Observations No. 6,7,8,11 and 16 the documents states to have been enclosed are neither attached nor uploaded in the appropriate columns. The requisite documents are required to be uploaded at the relevant column.</p>	<p>Observations with respect to Sr. No. 6,7&8 is now uploaded on online portal.</p> <p>With regard to point No. 11, it is submitted that the muck dumping plan has been duly authenticated by the undersigned and is uploaded on online portal. Further user agency has submitted that with reference to Point No. 16, the ESZ certificate has already been uploaded on the PARIVESH portal under Part-I “Additional information Details” at column No. 15.</p>
3.	<p>The Reply furnished against Observations No. 9 is vague and require review and resubmission with specific details.</p>	<p>User agency has submitted that the proposed dumping site cannot be shifted to non-forest land because no suitable non-Forest land is available in the vicinity of the proposed road alignment. The terrain and land use pattern of the surrounding area do not provide any feasible alternative dumping location outside the forest land. A comprehensive survey of the adjoining area was conducted to explore the availability of suitable non forest for muck dumping. However, due to constraints such as</p>



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		steep terrain in, non-availability of suitable private /government non forest land in proximity to the project site transportation limitations and environmental safety consideration no feasible non forest land could be identified for purpose. The proposed 0.809 ha forest land has been selected as the most technically viable and environmentally manageable option. Keeping in view slope stability minimum tree felling, safe retaining structure and proper drainage provisions. The muck dumping plan has been prepared with adequate mitigation measures including retaining walls, tow wall, garland drains, compaction and plantation over the stabilized dump site to prevent soil erosion and environmental degradation.
4.	The list of trees on muck dumping sites, as sought by the GoI under Observations No. 10 has not been submitted.	There is no tree on the dumping site. Necessary certificate is submitted/uploaded.
5.	The details of trees sought under Observations No. 13 and 14 have not been revised in online Part-II and the revised tree list in required to be uploaded.	The revised detail of trees has been uploaded in online Part-II.
6.	In response to Observations No 17. The certificate of the Divisional Forest Officer, WL Kullu stated to have been uploaded is not found on the portal.	The certificate of the Divisional Forest Officer, WL Kullu has been uploaded on the portal.

This is for favour of kind information & further n/action at your end please.

Signed by

Rakesh Katoch

Date: 19-03-2026 12:21:10

**Deputy Conservator of Forest,
Suket Forest Division,
Sundernagar Distt. Mandi (H.P.)**

Endst. No.RK/_____ Dated S/Nagar,the/_____

- Copy is forwarded to **Executive Engineer, Sundernagar Division, HPPWD Sundernagar** w.r.t. his **office memo No. PW-SNR-WA.R-27 (Dharli)/2025/-14235-37 dated 09/03/2026** for kind information.
- RFO Kangoo** for information & further n/action. He may ensure that use of forest land may not be allowed to user agency till final approval granted by competent authority.

-Sd./-

**Deputy Conservator of Forest,
Suket Forest Division,
Sunder-nagar (H.P).**



Office of
EXECUTIVE ENGINEER, SUNDER NAGAR DIVISION
Himachal Pradesh Public Works Department Sunder Nagar
Ph. 01907-266245, Fax: 266845, E-mail ee-sun-hp@nic.in

No.PW-SNR-WA. R-27 (Dharli)/2026/-
To

14235-37

Dated: 9-3-2026

✓ The Deputy Conservator of Forests,
Suket Forest Division,
Sunder Nagar Distt. Mandi (H.P)

Subject: -

Diversion of 10.6019 ha. of forest land in favour of HPPWD for the Construction of Dharli to Balag road (Kms. 0/00 to 18/900), within the jurisdiction of Suket Forest Division, Distt. Mandi HP. (Online Proposal No. FP/HP/Road/19449/2020).

Reference: -

The Nodal Officer-Cum-Pr. CCF (FCA) O/o Pr. CCF, H.P, Shimla-1 Online EDS dated 17.01.2026.

Sir,

The Point wise reply of observation pertaining to PWD as raised by The Nodal Officer-Cum-Pr. CCF (FCA) O/o Pr. CCF, H.P, Shimla-1 Online EDS dated 17.01.2026 which the observation regarding point wise has been raised. The point wise reply of attended observations is as under: -

Sr. No.	Observation	Reply
1.	With reference to Observation No. 4. Gol has asked to furnish details of mitigation measures to control soil erosion/landslides during and after project execution. Further, the Soil and Moisture Conservation Plan, as prescribed under para 1.22 (11) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam. 1980, has not yet been uploaded.	<p>The User Agency acknowledges the concerns related to slope stability and soil erosion in the proposed diversion area. Suitable mitigation measures are being incorporated to prevent accelerated soil erosion and landslide both during and after project execution. The proposed measures include:</p> <p>1. Structural Measures</p> <ul style="list-style-type: none">• Construction of retaining walls/breast walls and toe walls at vulnerable stretches to stabilize the slope.• Adoption of bench cutting instead of vertical cutting to maintain a safe slope gradient.• Provision of gabion structures, check dams, and contour barriers where necessary. <p>2. Drainage and Runoff Management</p>

- Formation of well-designed catch drains, side drains, and cross drains to channelize runoff safely.
- Construction of cut-off drains above excavation zones to prevent surface water inflow.
- Ensuring proper outfall points to avoid waterlogging and scouring.

3. Bio-engineering Measures

- Grass turfing, brush layering, hydro-seeding, and plantation of deep-rooted native shrubs and trees on exposed slopes.
- Adoption of vegetative barriers along the slope to minimize sheet erosion.
- Use of coir matting / jute netting for temporary surface stabilization during construction.

4. Construction-phase Safeguards

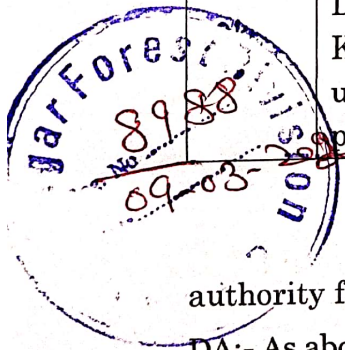
- Minimizing open excavation during monsoon periods.
- Storage of excavated material only at designated safe locations with retaining measures.
- Regular monitoring of slope behavior by field engineers.

5. Post-construction Restoration

- Immediate biological restoration of disturbed areas.
- Long-term monitoring and maintenance of drainage structures and slope stabilization measures.

Further, as required, the Soil and Moisture Conservation Plan (SMC Plan) is being prepared in accordance with Para-1.22 (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, wherever applicable. The SMC Plan will include detailed site-specific measures, maps, cost estimates, and implementation timelines.

		<p>for the purpose. The proposed 0.809 ha forest land has been selected as the most technically viable and environmentally manageable option, keeping in view slope stability, minimum tree felling, safe retaining structures, and proper drainage provisions. The muck dumping plan has been prepared with adequate mitigation measures, including retaining walls, toe walls, garland drains, compaction, and plantation over the stabilized dump site to prevent soil erosion and environmental degradation.</p> <p><i>The User Agency assures that all dumping activities will be carried out strictly in accordance with environmental and engineering norms, ensuring minimal disturbance to the surrounding forest landscape.</i></p>
4.	The list of trees on muck dumping sites, as sought by Gol under Observation No. 10. has not been submitted.	<i>Point Pertains to Forest Department.</i>
5.	The details of trees sought under Observations No. 13 and 14 have not been revised in online Part-II, and the revised tree list is required to be uploaded.	<i>Point Pertains to Forest Department.</i>
6.	In response to Observation No. 17. the certificate of the Divisional Forest Officer, WL Kullu, stated to have been uploaded, is not found on the portal.	<i>Point Pertains to Forest Department.</i>



FCA 2/10/22

This is for your kind consideration and further submission to the higher authority for the approval of the same.

DA:- As above.

**Executive Engineer,
Sunder Nagar Division,
HP.PWD Sunder Nagar.**

Copy of the following for information:

1. The Assistant Engineer Dehar Sub- Division H.P.P.W.D. Dehar.
2. The FCA Consultants, Naresh Kumar R/O Nerchowok Dist. Mandi HP- 175008.

**Executive Engineer,
Sunder Nagar Division,
HP.PWD Sunder Nagar.**

FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900.

File No. :-FP/HP/ROAD/49449/2020

Date of Proposal :-05 Sep 2020

DETAIL OF MUCK/DEBRIS TO BE PRODUCED

Name Of Work:- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900. TO BE CONSTRUCTED IN DISTRICT MANDI STATE HIMACHAL PRADESH.

Detail of quantity to be produced and used during the construction of road

Sr. No.	Description of items	Quantity
	Total quantity to be produced during construction	161028.00
1	To be used for soling of road (6.5%), wearig of road (6.5%) and filling behind retaining walls of road (20%) total (33%)	53139
2	To be used for local use for construction of road average (total 33%)	53139
3	Total Quantity to used (2+3)	106278
5	Net quantity to be dumped (3-(1+2))	54750.00
6	Soil factor 40%	21900
	G-Total (4+5):-	76650.00

C/S

Deputy Conservator of Forests
Suket Forest Division
Sundemagar Distt. Mandi (H.P.)

Executive Engineer,
Sunder Nagar Division
HPPWD Sunder Nagar

PROFORMA-III (REFER ITEM-8)

STATEMENT SHOWING DUMPING QUANTITY OF MUCK/DEBRIS TO BE DUMPED WITH OTHER DETAIL FOR PROJECT CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900. IN DISTRICT MANDI

Sr. No.	Name of component from Muck/Debris is to be produced	Total Qty. of Muck/Debris to be produced (000M3) (in Cum)	Qty. of Muck/Debris to be utilized locally (000M3) (in Cum)	Qty. of Muck/Debris to be Dumped on compact basis (000M3) (in Cum)	Factor of increase in Vol. for Dumping (in Cum)	Qty. of Muck/Debris to be Dumped on basis of increase (000M3) (in Cum)	Name of dumping places	Slop of dumping place	Location of Dumping place, Police Station & Nearby road	Distance of dumping place from river (In KMS)	Area of dumping place with Length and Breadth (In hect)	Area of forest land out of land in Column-10 (In hect)	Height of Muck/Debris dump expected (Vol. Area) (in mtrs.)	Remarks
1	2	3	4	5	6	7	8	14	10	11	12	13	14	15
			66% =	34% =										
1	Formation cutting work	161028.00	106278.00	54750.00	1.40	76650.00	Dharli. RopaBandla, Salag, DPF Bunga	1H:3V			0.8090	10.6019	7.98	

g/s

Deputy Conservator of Forests
Suket Forest Division
Sundernagar Distt. Mandi (H.P.)

Executive Engineer,
Sunder Nagar Division
HPPWD Sunder Nagar

PERFORMA-V
STATEMENT SHOWING DETAIL OF PLACES FOR DISPOSAL OF MUCK/DEBRIS OF CONSTRUCTION OF DHARLI TO BALAG ROAD KM.
0/00 TO 18/900. TO BE CONSTRUCTED IN DISTRICT MANDI STATE HIMACHAL PRADESH.

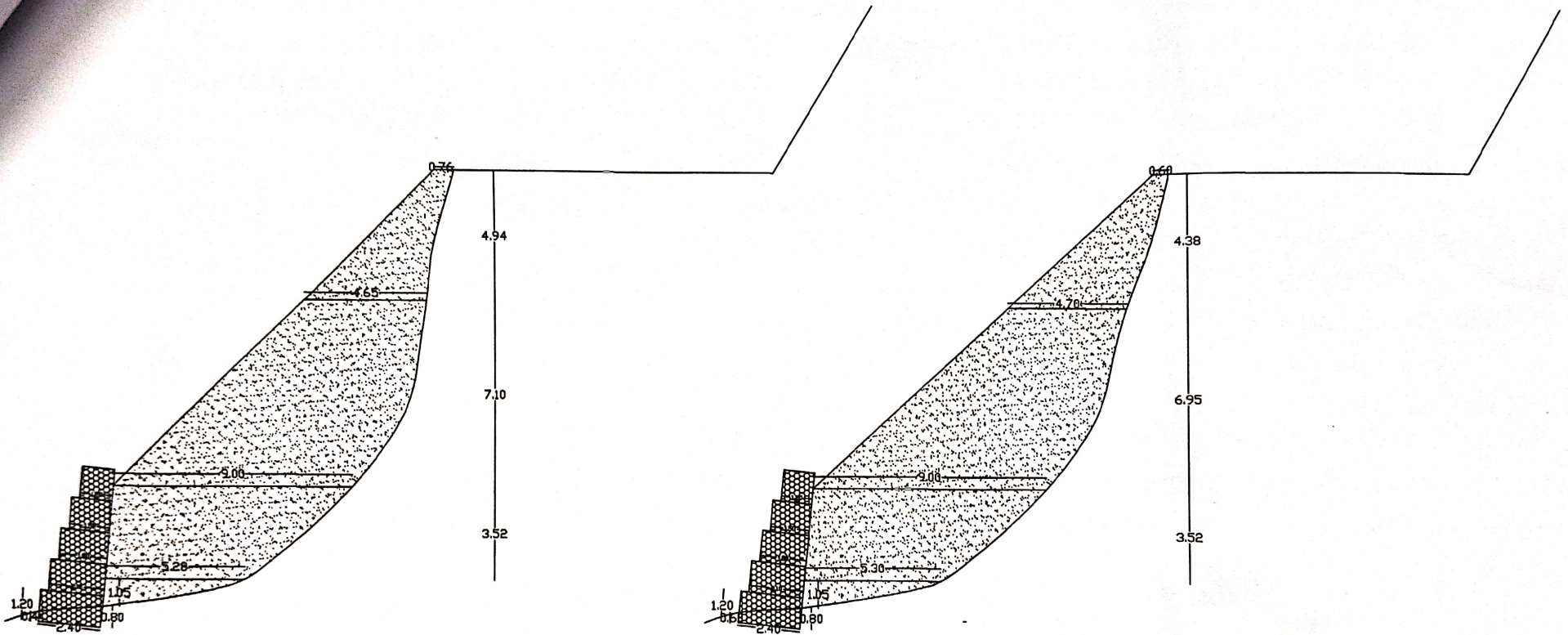
Sr. No.	Name of dumping places	Location of Dumping place i.e. village Khasra No.	Slope of dumping place	Length and width (in mtrs.) and Area of Dumping place (in sqm.)	Quantity of muck/Debris to be dumped [in 1000 cum]	Height of dumping expected.	Remarks (Area in bigha)
1	1st Dumping Place : Dharli	RD 0/00 to 4/630 Khasra No.274/252/5	1:7	40.5 x 20 = 810 Sqm	4860.00	6.00	0.081
2	2nd Dumping Place :Dharli	RD 0/00 to 4/630 Khasra No.245/3	1:7	40.5 x 20 = 810 Sqm	4860.00	6.00	0.081
3	3rd Dumping Place : Dharli	RD 4/665 to 8/305 Khasra No.271/2	1:7	40.5 x 20 = 810 Sqm	4860.00	6.00	0.081
4	4rth Dumping Place :Ropabandla	RD 8/305 to 8/475 Khasra No.77/3	1:7	40.5 x 20 = 810 Sqm	4860.00	6.00	0.081
5	5th Dumping Place : Ropabandla	RD 9/745 to 9/995 Khasra No.218/4	1:7	40.5 x 20 = 810 Sqm	4860.00	6.00	0.081
6	6th Dumping Place :Ropabandla	RD 10/065 to 10/575 Khasra No.935/404/2	1:7	40.4 x 20 = 808 Sqm	4848.00	6.00	0.0808
7	7th Dumping Place : Ropabandla	RD 10/995 to 11/895 Khasra No.676/3	1:7	40.4 x 20 = 808 Sqm	4848.00	6.00	0.0808
8	8th Dumping Place :Ropabandla	RD 12/113 to 11/880 Khasra No.577/2	1:7	40.4 x 20 = 808 Sqm	4848.00	6.00	0.0808
9	9th Dumping Place : Salag	RD 12/880 to 13/870 Khasra No.693/34/2	1:7	40.4 x 20 = 808 Sqm	4848.00	6.00	0.0808
10	10th Dumping Place :DPF Bunga	RD 15/595 to 18/025 Khasra No.12/2	1:7	40.4 x 20 = 808 Sqm	4848.00	6.00	0.0808
			Total:-	8090	48540.00		0.809

Say 0.8090 Hect.

9/ Deputy Conservator of Forests
 Suket Forest Division
 Sundernagar Distt. Mandi (H.P.)

Executive Engineer,
 Sunder Nagar Division
 HPPWD Sunder Nagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-1)



BAKTI WOOD-
0.80' 0.80' X 2.40'-1.44 sqm

BAKTI WOOD-
0.80' 0.80' X 2.40'-1.92sqm

DUMPING AREA:-

- 1:- $(5.25 \times 2.25) / 2 = 2.77$
 - 2:- $(5.25 + 4.00) / 2 \times 3.52 = 25.13$
 - 3:- $(4.00 + 3.25) / 2 \times 3.52 = 12.48$
 - 4:- $(3.25 + 2.25) / 2 \times 3.52 = 11.36$
- TOTAL = 51.74 SQM

AVG. AREA:-

$(51.74 + 57.16) / 2 = 54.45 \text{ sqm}$

DUMPING AREA:-

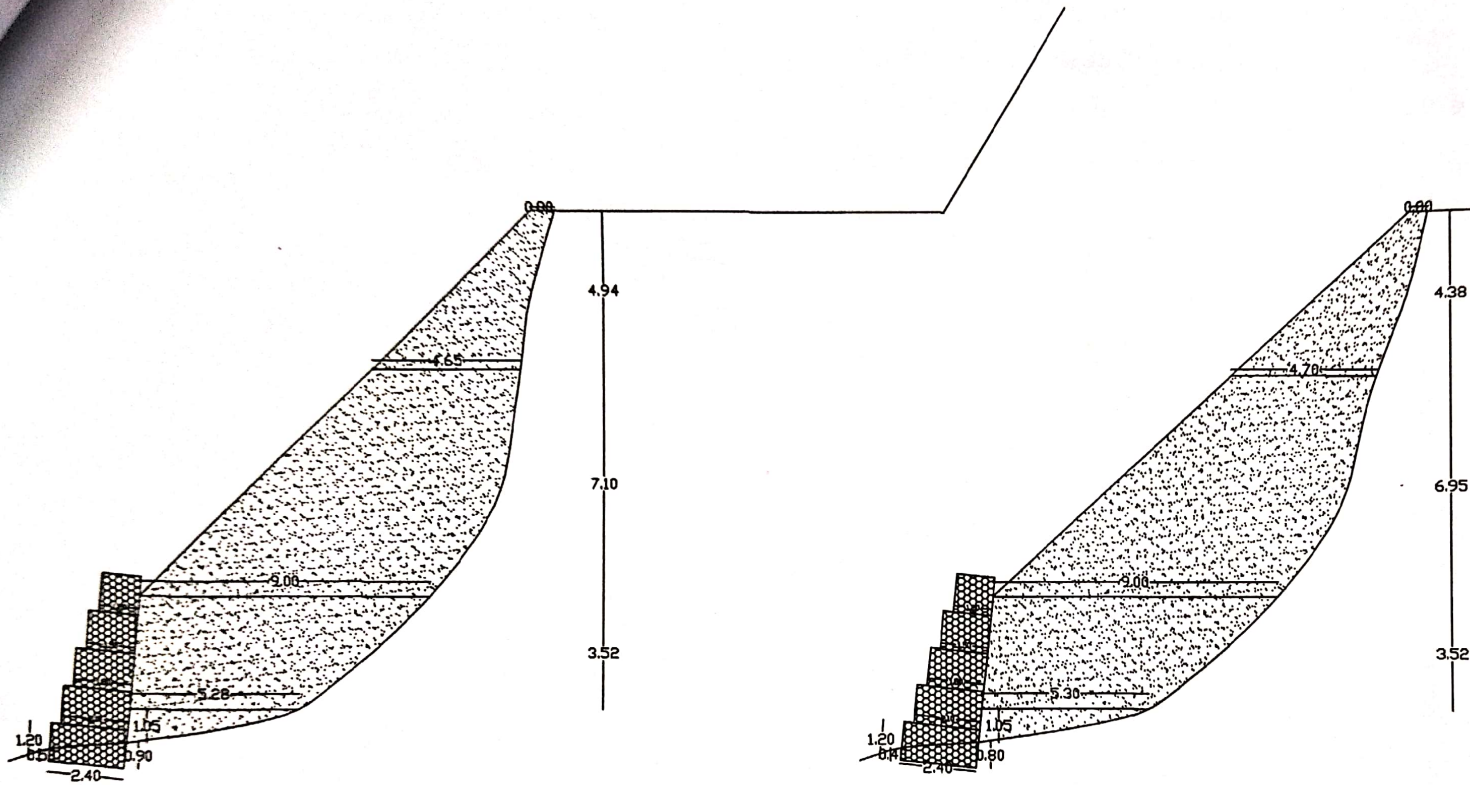
- 1:- $(5.30 \times 2.30) / 2 = 2.78$
 - 2:- $(5.30 + 4.00) / 2 \times 3.52 = 25.17$
 - 3:- $(4.00 + 3.30) / 2 \times 3.52 = 12.60$
 - 4:- $(3.30 + 2.30) / 2 \times 3.52 = 11.61$
- TOTAL = 52.16 SQM

TOTAL CAPACITY OF 1ST
DUMPING SITE:-
= 54.44 X 55.00 = 2994.4 CUM

g
Deputy Conservator of Forests
Suket Forest Division
Sundernagar Distt. Mandi (H.P.)

[Signature]
Executive Engineer,
Sundernagar Division
HPPWD, Sundernagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-2)



EARTH WORK:-
0.40: 0.80/2 X 1.40-1.40sqm

EARTH WORK:-
0.40: 0.80/2 X 1.40-1.40sqm

DUMPING AREA:-
1:- $(5.28 \times 1.05) = 2.77$
2:- $(5.28 + 9.00) / 2 \times 3.52 = 25.13$
3:- $(9.00 + 4.65) / 2 \times 7.10 = 48.16$
4:- $(4.65 + 0.80) / 2 \times 4.94 = 13.49$
TOTAL = 89.55 SQM

AVG. AREA:-
 $(89.55 + 87.59) / 2 = 87.72 \text{sqm}$

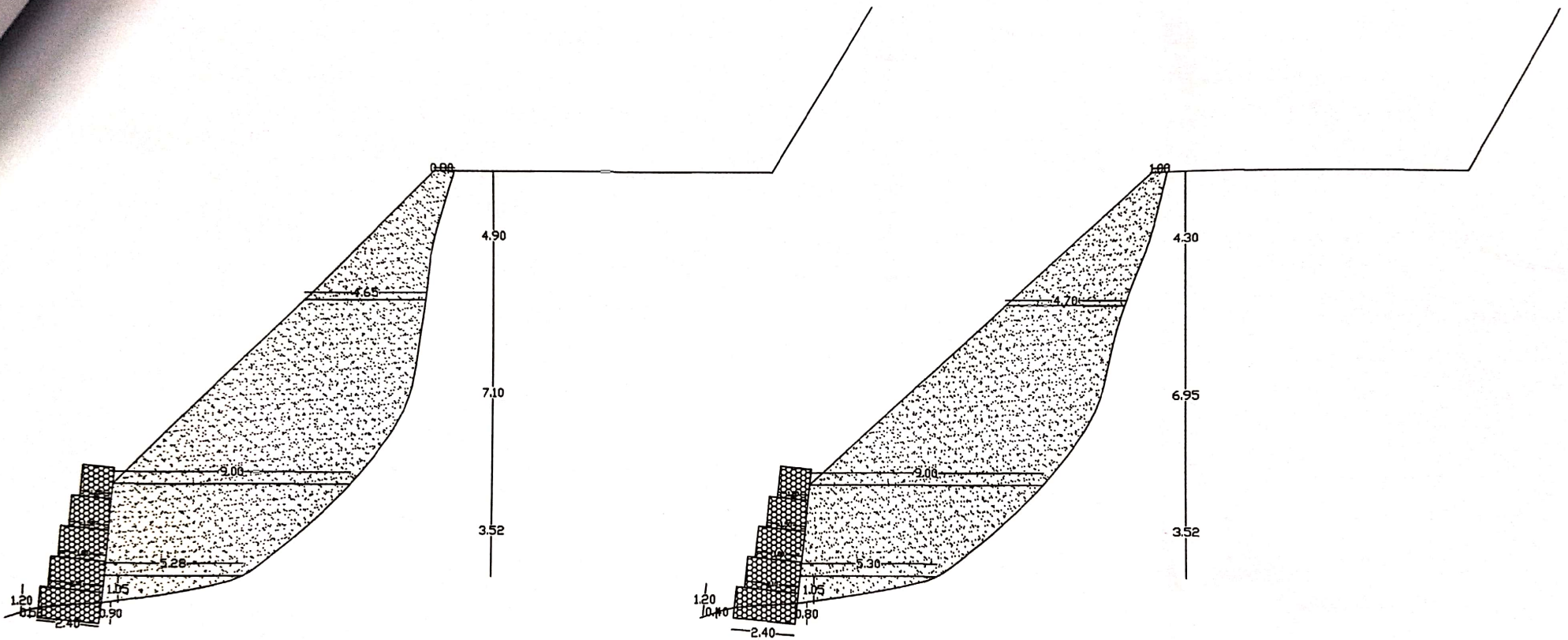
DUMPING AREA:-
1:- $(5.30 \times 1.05) = 2.78$
2:- $(5.30 + 9.00) / 2 \times 3.52 = 25.17$
3:- $(9.00 + 4.70) / 2 \times 6.95 = 47.60$
4:- $(4.70 + 0.80) / 2 \times 4.38 = 12.04$
TOTAL = 87.59 SQM

TOTAL CAPACITY OF 2nd
DUMPING SITE:-
= 88.72 X 55.00 = 4880 CUM

PS
Deputy Conservator of Forests,
Suket Forest Division,
Sundernagar Distt. Mandi (H.P.)

[Signature]
Executive Engineer,
Sundernagar Division
HPPWD. Sundernagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-3)



BARKI WIRE-
0.50 X 0.80 X 1.40-1.40 mm

BARKI WIRE-
0.40 X 0.80 X 1.40-1.40 mm

DUMPING AREA:-
1:- $\frac{1}{2} \times 5.28 \times 1.05 = 2.77$
2:- $\frac{1}{2} \times (5.28 + 9.00) \times 2.26 = 25.13$
3:- $\frac{1}{2} \times (9.00 + 4.65) \times 2.27 = 14.46$
4:- $\frac{1}{2} \times (4.65 + 0.80) \times 2.40 = 14.02$
TOTAL = 90.45 SQM

AVG. AREA:-
 $(90.45 + 87.37) / 2 = 88.91 \text{ sqm}$

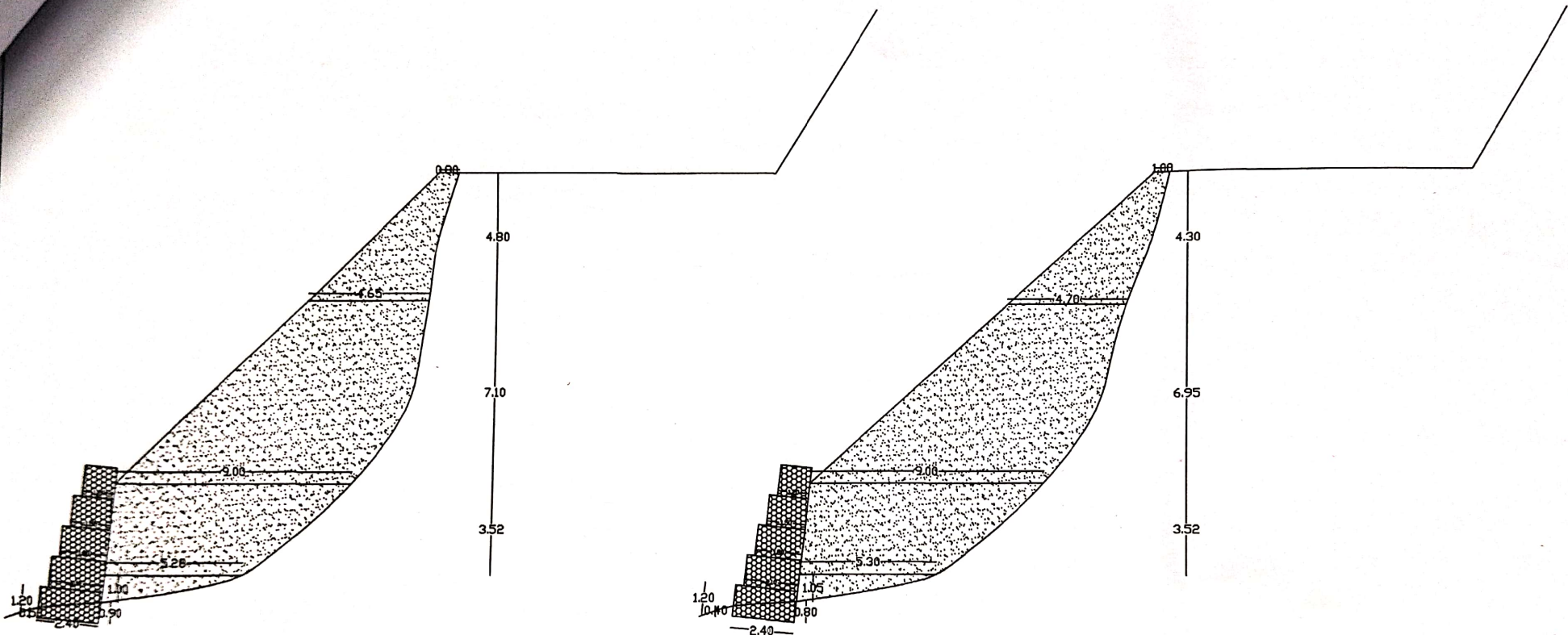
DUMPING AREA:-
1:- $\frac{1}{2} \times 5.30 \times 1.05 = 2.78$
2:- $\frac{1}{2} \times (5.30 + 9.00) \times 2.26 = 25.17$
3:- $\frac{1}{2} \times (9.00 + 4.70) \times 2.26 = 14.60$
4:- $\frac{1}{2} \times (4.70 + 0.80) \times 2.40 = 11.82$
TOTAL = 87.37 SQM

TOTAL CAPACITY OF 3rd
DUMPING SITE:-
= 88.91 X 55.00 = 4890 CUM

(Signature)
Deputy Conservator of Forests
Suket Forest Division
Sundernagar Distt. Mandi (H.P.)

(Signature)
Executive Engineer,
Sundernagar Division
HPPWD, Sundernagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-4)



BARKH WIRD-
0.40 X 0.80 X 1.40-1.40m

BARKH WIRD-
0.40 X 0.80 X 2.40-1.40m

DUMPING AREA-
1:- $\frac{1}{2} \times 2.40 \times 1.00 = 2.64$
2:- $\frac{(5.26 + 9.00) \times 3.70}{2} = 25.13$
3:- $\frac{(9.00 + 4.65) \times 7.10}{2} = 48.46$
4:- $\frac{(4.65 + 0.96) \times 4.80}{2} = 13.08$
TOTAL = 89.31 SQM

AVG.AREA-
 $\frac{(89.31 + 87.37)}{2} = 88.34 \text{sqm}$

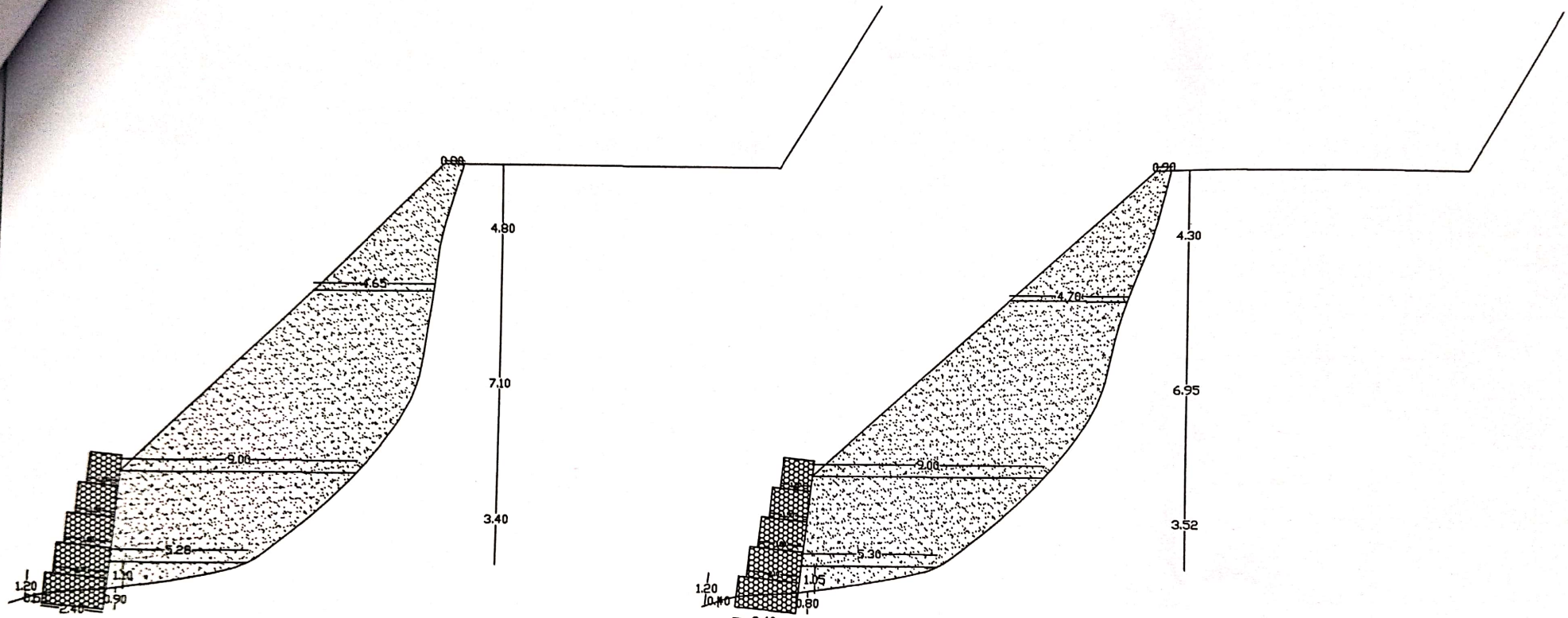
DUMPING AREA-
1:- $\frac{1}{2} \times 2.40 \times 1.05 = 2.78$
2:- $\frac{(5.30 + 9.00) \times 3.70}{2} = 25.17$
3:- $\frac{(9.00 + 4.70) \times 6.95}{2} = 47.60$
4:- $\frac{(4.70 + 0.80) \times 4.30}{2} = 11.82$
TOTAL = 87.37 SQM

TOTAL CAPACITY OF 4th.
DUMPING SITE-
 $= 88.34 \times 55.00 = 4859 \text{ CUM}$

[Signature]
Deputy Conservator of Forests
Suket Forest Division
Sundernagar Distt. Mandi (H.P.)

[Signature]
Executive Engineer,
Sundernagar Division
HPPWD, Sundernagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-5)



EARTH WORK-
CLASS 0.80/2 X 1.40-1.40 cum

DUMPING AREA:-
1):- $15.28 \times 1.10 = 2.90$
2):- $(5.28 + 9.00) / 2 \times 3.40 = 24.28$
3):- $(9.00 + 4.65) / 2 \times 7.10 = 48.46$
4):- $(4.65 + 0.80) / 2 \times 4.90 = 13.08$
TOTAL = 88.72 SQM

AVG. AREA:-
 $(88.72 + 87.59) / 2 = 88.15 \text{ cum}$

EARTH WORK-
CLASS 0.80/2 X 1.40-1.40 cum

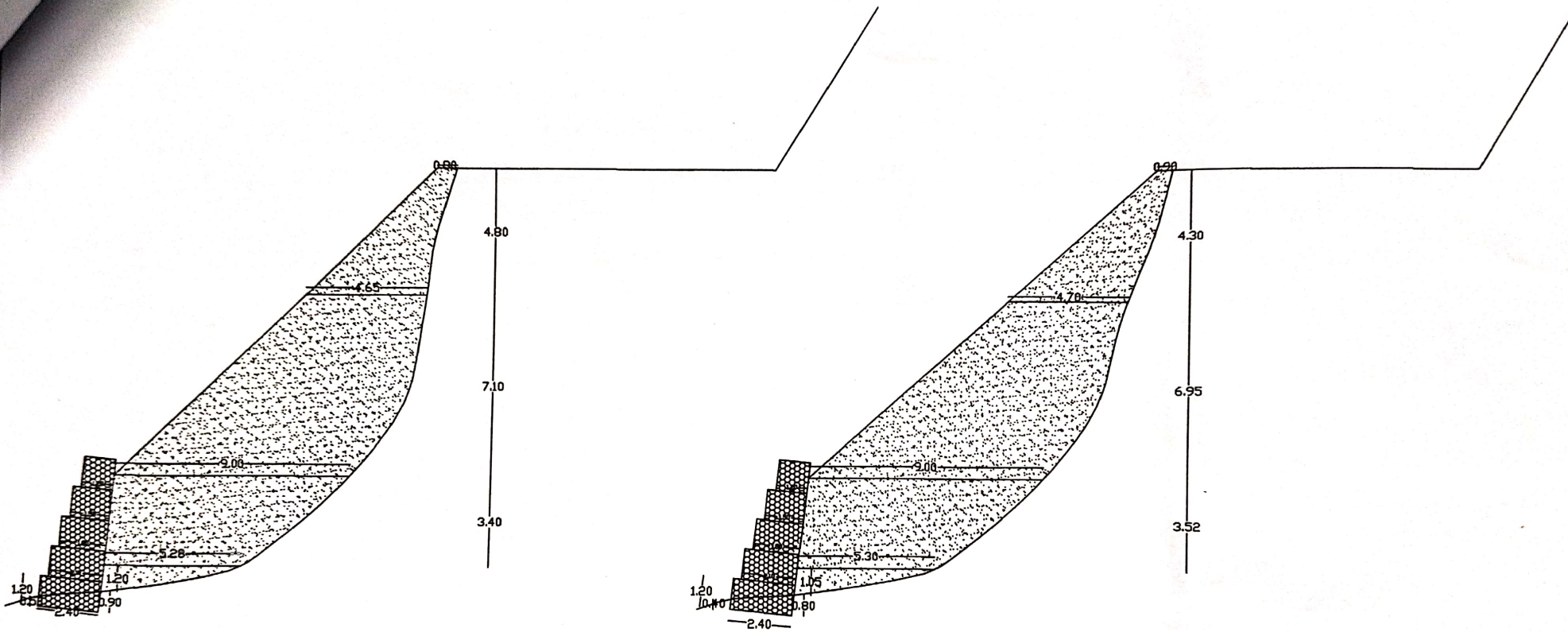
DUMPING AREA:-
1):- $15.30 \times 1.05 = 2.78$
2):- $(5.30 + 9.00) / 2 \times 3.52 = 25.17$
3):- $(9.00 + 4.70) / 2 \times 6.95 = 47.60$
4):- $(4.70 + 0.80) / 2 \times 4.30 = 12.04$
TOTAL = 87.59 SQM

TOTAL CAPACITY OF 5th.
DUMPING SITE:-
 $= 88.15 \times 55.00 = 4848 \text{ CUM}$

G.
Deputy Conservator of Forests
Suket Forest Division
Sundernagar Dist. Mandi (H.P.)

[Signature]
Executive Engineer,
Sundernagar Division
HPPWD, Sundernagar
[Signature]

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-6)



BARKH WOOD-
C/O: 0.80' X 2.40'-1.40m

BARKH WOOD-
C/O: 0.80' X 2.40'-1.40m

DUMPING AREA:-
1:- $(5.28+0.90)/2 \times 3.40 = 24.28$
2:- $(9.00+4.65)/2 \times 7.10 = 48.48$
3:- $(4.65+0.90)/2 \times 1.80 = 18.08$
TOTAL = 88.84 SQM

AVG AREA:-
 $(88.84+87.59)/2 = 88.22 \text{ sqm}$

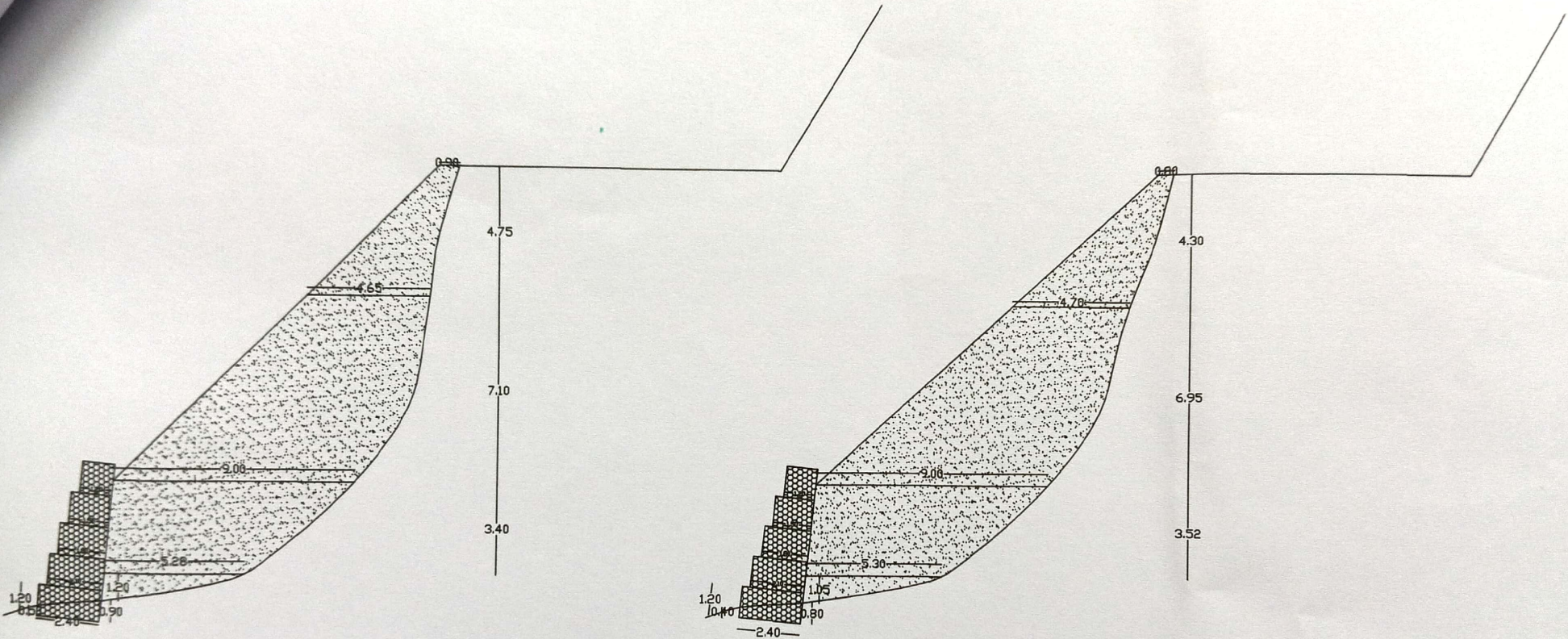
DUMPING AREA:-
1:- $(5.30+0.90)/2 \times 3.52 = 25.17$
2:- $(9.00+4.70)/2 \times 6.95 = 47.60$
3:- $(4.70+0.90)/2 \times 4.30 = 12.04$
TOTAL = 87.59 SQM

TOTAL CAPACITY OF 6th.
DUMPING SITE:-
 $= 88.29 \times 55.00 = 4856 \text{ CUM}$

[Signature]
Deputy Commissioner of Forests
Suket Forest Division
Sundernagar Dist. Mandi (H.P.)

[Signature]
Executive Engineer,
Sundernagar Division
HPPWD, Sundernagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-7)



BARUTI WOOD-
0.80/ 0.80/9 X 2.40-1.40 mpa

BARUTI WOOD-
0.40/ 0.80/9 X 2.40-1.40 mpa

DUMPING AREA:-
1:- $\frac{1}{2} \times 5.28 \times 1.20 = 3.17$
2:- $\frac{1}{2} \times (5.28 + 9.00) / 2 \times 3.40 = 24.28$
3:- $\frac{1}{2} \times (9.00 + 4.65) / 2 \times 7.10 = 48.46$
4:- $\frac{1}{2} \times (4.65 + 0.90) / 2 \times 4.75 = 13.18$
TOTAL = 89.09 SCM

AVG. AREA:-
 $(89.09 + 87.37) / 2 = 88.23 \text{sqm}$

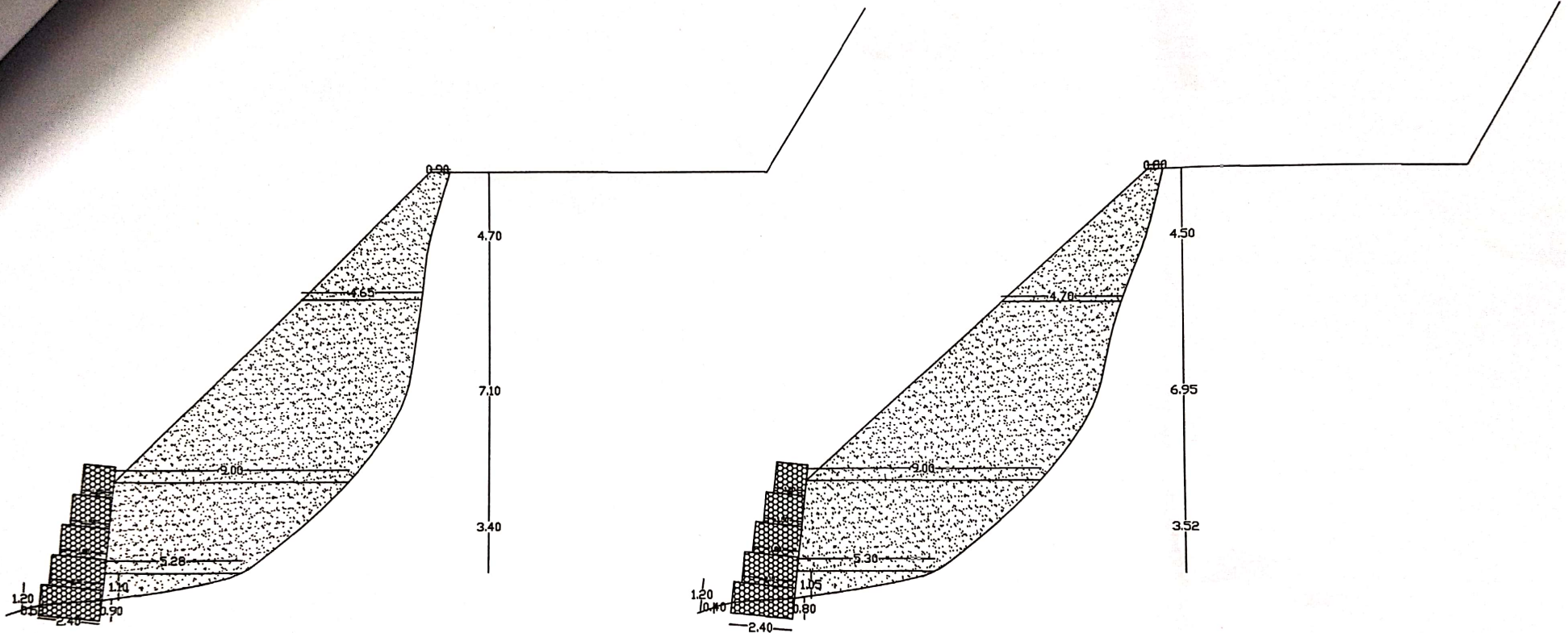
DUMPING AREA:-
1:- $\frac{1}{2} \times 5.30 \times 1.05 = 2.78$
2:- $\frac{1}{2} \times (5.30 + 9.00) / 2 \times 3.52 = 25.17$
3:- $\frac{1}{2} \times (9.00 + 4.70) / 2 \times 6.95 = 47.60$
4:- $\frac{1}{2} \times (4.70 + 0.80) / 2 \times 4.30 = 11.82$
TOTAL = 87.37 SCM

TOTAL CAPACITY OF 7th.
DUMPING SITE:-
 $= 88.23 \times 65.00 = 4883 \text{ CUM}$

Deputy Conservator of Forests
Suket Forest Division
Sundernagar Dist. Mandi (H.P.)

Executive Engineer,
Sundernagar Division
HPPWD, Sundernagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-8)



BARKHI WOOD-
0.40' 0.80' X 1.40-1.45 mm

DUMPING AREA:-
1):- 15.28X1.10 = 2.90
2):- (5.28+ 9.00)/2X2.40 = 24.28
3):- (9.00+ 4.65)/2X7.10 = 48.48
4):- (4.65+ 0.90)/2X1.70 = 13.04
TOTAL = 88.68 SQM

AVG AREA:-
(88.68+ 87.92)/2=88.30sqm

BARKHI WOOD-
0.40' 0.80' X 1.40-1.45mm

DUMPING AREA:-
1):- 15.90X1.05 = 2.78
2):- (5.30+ 9.00)/2X2.52 = 25.17
3):- (9.00+ 4.70)/2X5.95 = 47.60
4):- (4.70+ 0.80)/2X1.50 = 12.87
TOTAL = 87.92 SQM

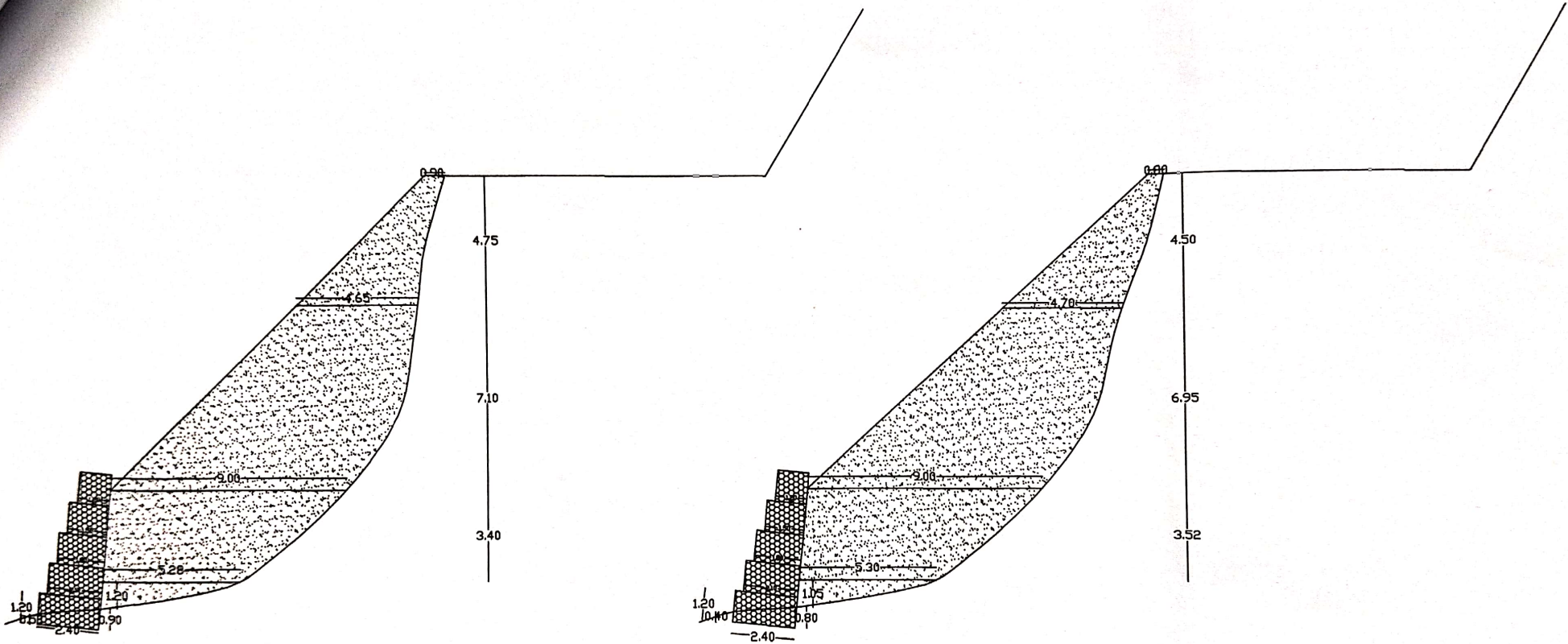
TOTAL CAPACITY OF 8th.
DUMPING SITE:-
=88.30 X 55.00=4856 CUM

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Suket Forest Division
Sundernagar Distt. Mandi (H.P.)

Executive Engineer,
Sundernagar Division
HPPWD, Sundernagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-9)



EARTH WORK-
0.80 X 0.80 X 2.40-1.68 sqm

DUMPING AREA--
1)- $\frac{1}{2} \times (0.90 + 2.40) \times 0.90 = 2.17$
2)- $\frac{1}{2} \times (5.28 + 9.00) \times 3.40 = 24.28$
3)- $\frac{1}{2} \times (9.00 + 4.65) \times 7.10 = 48.46$
4)- $\frac{1}{2} \times (4.65 + 0.90) \times 4.75 = 18.18$
TOTAL = 89.09 SQM

AVG.AREA--
 $(89.09 + 87.92) / 2 = 88.50 \text{ sqm}$

EARTH WORK-
0.80 X 0.80 X 2.40-1.68 sqm

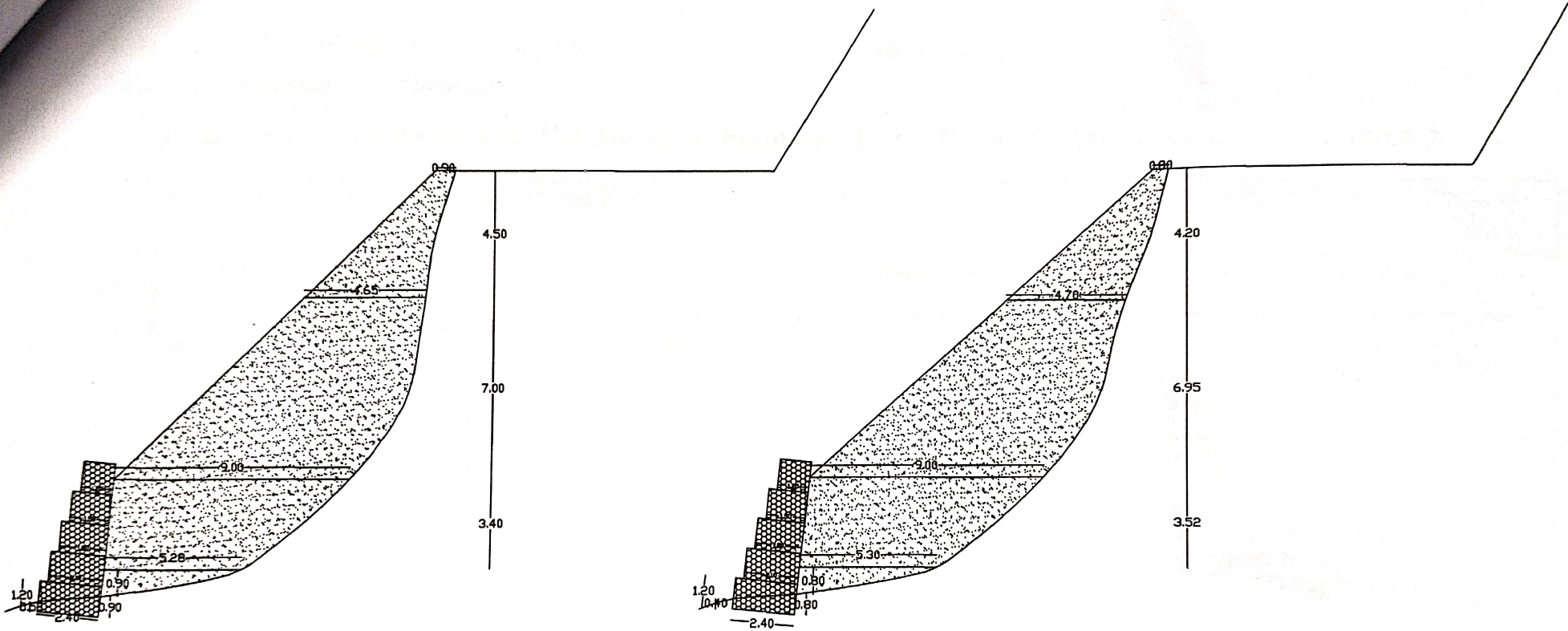
DUMPING AREA--
1)- $\frac{1}{2} \times (0.80 + 2.40) \times 0.80 = 2.78$
2)- $\frac{1}{2} \times (5.30 + 9.00) \times 3.52 = 25.17$
3)- $\frac{1}{2} \times (9.00 + 4.70) \times 6.95 = 47.60$
4)- $\frac{1}{2} \times (4.70 + 0.80) \times 4.50 = 12.37$
TOTAL = 87.92 SQM

TOTAL CAPACITY OF 9th.
DUMPING SITE--
= 88.50 X 55.00 = 4868 CUM

g.j.
Deputy Conservator of Forests
Suket Forest Division
Sundernagar Dist. Mandi (H.P.)

[Signature]
Executive Engineer,
Sundernagar Division
HPPWD, Sundernagar

NAME OF WORK:-C/O DHARLI TO BALAG ROAD KM 0/000 TO 18/900 (SH:-DUMPING AREA-10)



EARTH WORK:-
CLASS 0.80/2 X 8.40-1.65m

EARTH WORK:-
CLASS 0.80/2 X 8.40-1.65m

DUMPING AREA:-
1:- $\frac{1}{2} \times 5.28 \times 0.90 = 2.38$
2:- $\frac{1}{2} \times (5.28 + 9.00) \times 2.33.40 = 24.28$
3:- $\frac{1}{2} \times (9.00 + 4.65) \times 2.37.00 = 47.77$
4:- $\frac{1}{2} \times (4.65 + 0.90) \times 2.40 = 12.48$
TOTAL = 86.92 SQM

AVG. AREA:-
 $(86.92 + 86.44) / 2 = 86.68 \text{ sqm}$

DUMPING AREA:-
1:- $\frac{1}{2} \times 5.30 \times 0.80 = 2.12$
2:- $\frac{1}{2} \times (5.30 + 9.00) \times 2.33.52 = 25.17$
3:- $\frac{1}{2} \times (9.00 + 4.70) \times 2.33.95 = 47.60$
4:- $\frac{1}{2} \times (4.70 + 0.80) \times 2.40 = 11.55$
TOTAL = 86.44 SQM

TOTAL CAPACITY OF 10th.
DUMPING SITE:-
 $= 86.68 \times 55.00 = 4766 \text{ CUM}$

cf:
Deputy Conservator of Forests
Suket Forest Division
Sundernagar Dist. Mandi (H.P.)

Executive Engineer,
Sundernagar Division
HPPWD. Sundernagar

FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900.

File No. :-FP/HP/ROAD/49449/2020

Date of Proposal :-05 Sep 2020

Financial Components For The Material Required To Be Filled To The Recognised Dumping Sites.

Carriage of excavated material required hauling for dumping at the proposed site.	Net Quantity to lift Cum.	Rate of carriage Cum.	Amount.
1 Average lead = 2 Km.	137535.3	15.87	2182685.21
2 Unit cost of carriage Rs. Per cum.			
3 Rate of carriage = Average lead x Unit cost			
C/O Retaining structure for dumping sites (Dumping site cost appended)	Sr. No.	Dumping site No.	Amount.
	1	10	1245640.00
		Total -	1245640.00
Total Cost of Dumping the muck (1+2) (Rs.)			3428325.21

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Deputy Conservator of Forests
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Sunder Nagar Division
HPPWD Sunder Nagar



FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900.

File No. :-FP/HP/ROAD/49449/2020

Date of Proposal :-05 Sep 2020

Consumption of Material
SH: Construction of Dumping Sites

Sr. no	Description of item	Qty.	Unit	Unit Special Gelatine 80%		Electric Detonator		S.F Coil	
				Rate	Qty.	Rate	Qty.	Rate	Qty.
	Formation cutting								
	Cutting in Earth work								
I	Pick work	32323.7	P/Cum	0.00	0.00	0.00	0.00	0.00	0.00
II	Jumper work	35470	P/Cum	0.00	0.00	0.00	0.00	0.00	0.00
II	Blasting work	11061.6	P/Cum	0.00	0.00	0.00	0.00	0.00	0.00
IV	Hard Rock	11061.6	P/Cum	10.00	110616	1.38	15265.01	0.00	0.00
			Total		110616.00		15265.01		0.00

cf

Deputy Conservator of Forests
Suket Forest Division
Sundernagar Dist. Mandi (H.P.)

Executive Engineer,
Sunder Nagar Division
HPPWD Sunder Nagar



FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900.

File No. :-FP/HP/ROAD/49449/2020

Date of Proposal :-05 Sep 2020


Consumption of Material
SH: Construction of Dumping Sites

Sr.no	Description of item	Qty.	Unit	Cement in Tonne		Sand in Cum		Agg. 40mm in Cum		Boulder in Cum		G.I. Wire	
				Rate	Qty.	Rate	Qty.	Rate	Qty.	Rate	Qty.	Rate	Qty.
1	Boulders	74.7	Cum	0.00	0.00	0.00	0.00	0.00	0.00	1.00	74.7	0.00	0.00
2	GI wire 4 mm Dia	74.7	Sqm	0.00	0.00	0.00	0.00	0.00	0.00	0.00		11.37	849.34
			Total	0.00	0.00	0.00	0.00				74.70	11.37	849.34

0.85
Tonne

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FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900.


File No. :-FP/HP/ROAD/49449/2020

Date of Proposal :-05 Sep 2020

Extra cost Material
SH: Construction of Dumping Sites

Sr.No.	Description of item	Qty.	Unit	Rate as per HPSR	Market Rate/Stone issue rate	Difference	Amount
1	Special Gelatine	4314	Kg	75.00	80.00	5.00	21570.00
2	Electric Detonator	15270	Nos	7.00	25.00	18.00	274860.00
3	S.F Coil			0.00	0.00		
						Total	296430.00


Executive Engineer,
Sunder Nagar Division
HPPWD Sunder Nagar

CS

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Sundernagar Dist. Mandi (H.P.)



FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900.

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Date of Proposal :-05 Sep 2020

**Extra cost Material
SH: Construction of Dumping Sites**

Sr.No.	Description of item	Qty.	Unit	Rate as per HPSR 2009	Market Rate/Stone issue rate	Difference	Amount
1	Boulders	74.7	Cum	300.00	700.00	400.00	29880.00
2	GI wire 4 mm Dia	850	Kg	60.00	100.00	40.00	34000.00
						Total	63880.00

J

**Deputy Conservator of Forests
Suket Forest Division
Sundernagar Distt. Mandi (H.P.)**

[Signature]
**Executive Engineer,
Sunder Nagar Division
HPPWD Sunder Nagar**



FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900.

File No. :-FP/HP/ROAD/49449/2020


Date of Proposal :-05 Sep 2020

**Extra Carriage Material
SH: Construction of Dumping Sites**

Sr.No.	Description of item	Qty.	Unit	Rate	Amount
1	Carriage of earth/muck from site of work to dumping site as per Muck Management Plan	40110	Kg	15.90	637749.00
				Total	637749.00

C/S

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Suket Forest Division
Sundernagar Distt. Mandi (H.P.)


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File No. :-FP/HP/ROAD/49449/2020


Date of Proposal :-05 Sep 2020

**Extra Carriage Material
SH: Construction of Dumping Sites**

Sr.No.	Description of item	Qty.	Unit	Rate	Amount
1	Boulders	74.7	Kg	178.16	13308.55
2	GI wire 4 mm Dia	0.85	Tonne	268.70	228.40
				Total	13536.95

CF

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Suket Forest Division
Sundernagar Distt. Mandi (H.P.)~~


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FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO BALAG ROAD KM. 0/00 TO 18/900.
File No. :-FP/HP/ROAD/49449/2020
Date of Proposal :-05 Sep 2020

ABSTRACT OF COST

Sr.No.	Description of item	Qty.	Unit	Labour Rate	Amount	Through Rate	Amount
1	Earth work in excavation for structure as per drawing and technical specifications clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious materials and disposal upto a lead of 50.00 mtr., dressing of sides and bottoms and back filling in trenches with excavated suitable materials. Ordinary soil upto 3.00 metres depth.	7.717	per Cum	128.15	988.93	128.15	988.93
2	Providing and laying boulder apron laid in wire crates with 4 mm dia G.I. wire conforming to IS: 4826 in 100x100 mm mesh (woven diagonally) including ten percent extra for laps and joint laid with stone boulder weighing not less than 25 Kg each as per drawing and technical specification clause 1301.	124.6	per Cum	125.15	15593.69	1458.40	181716.64
				Total	16582.62		182705.57
	Add labour enhancement 100% on labour rate						16582.62
						Total	199288.20
	Add Extra carriage of material						13536.95
	Add extra cost of material						63880.00
						G. Total	276705.14

Ck
Deputy Conservator of Forests
Suket Forest Division
Sundernagar Dist. Mandla (M.P.)

[Signature]
Executive Engineer,
Sunder Nagar Division
HPPWD Sunder Nagar

**FULL TITLE OF PROJECT :- CONSTRUCTION OF DHARLI TO
BALAG ROAD KM. 0/00 TO 18/900.**

File No. :-FP/HP/ROAD/49449/2020

Date of Proposal :-05 Sep 2020

RECLAMATION PLAN FOR MUCK DUMPING


The muck dumping sites are proposed at RD 0/000 to 4/630, 4/665 to 8/305, 8/305 to 8/876, 9/745 to 9/995, 10/065 to 10/575, 10/575 to 11/895, 12/113 to 11/880, 12/880 to 13/870 and 15/595 to 18/025, falling in Khasra No. 274/252/5, 245/3, 271/2, 77/3, 218/4, 935/404/2, 676/3, 577/2, 693/34/2 and 12/2.


During the construction of Dharli to Balag Road, approximately 76,650 Cum of muck/debris will be generated. The excavated muck will be disposed of only at the identified dumping sites. Proper retaining structures, breast walls and drainage arrangements will be provided at the dumping sites to prevent erosion and sliding of muck. After completion of dumping activities, the sites will be leveled, stabilized and rehabilitated through bio-engineering measures and plantation of suitable local species (OBL plants). The reclamation plan for the dumping sites is as under:

Year	Area	Rate/Ha.	Total Amount
0th Year (Plantation+Fencing)	0.809	60150	48661.35
1th Maint.	0.809	6350	5137.15
2th Maint.	0.809	4300	3478.7
3th Maint.	0.809	2250	1820.25
4th Maint.	0.809	2250	1820.25
5th Maint.	0.809	2250	1820.25
6th Maint.	0.809	2250	1820.25
7th Maint.	0.809	2250	1820.25
8th Maint.	0.809	2250	1820.25
9th Maint.	0.809	2250	1820.25
10th Maint.	0.809	2250	1820.25
Total C.A Scheme			71839.2
Departmental charges @ 17.5%			12571.86
Contingency charges @ 5%			3591.96
Total			88003.02
GST for the cost of F/Post 13800@ 18%			2484.00
Nsy cost for plants 838 @23/-			19274.00
Grand Total			109761.02

CERTIFICATION

It is certified that the above Reclamation Plan for Muck Dumping has been prepared for the stabilization and rehabilitation of the identified dumping sites generated during the construction of Dharli to Balag Road. The muck dumping sites will be properly leveled and stabilized, and plantation will be carried out as per the above scheme to restore the environmental conditions of the area.


Deputy Conservator of Forests
Suket Forest Division


Executive Engineer,
Sunder Nagar Division