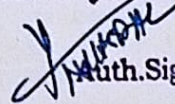
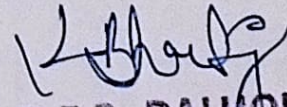


**RETAINING WALL COST ESTIMATION AS PER SCHEDULE OF RATES 2022
FOR CHANED SHEP 1.00MW IN DISTT CHAMBA H.P.**

Sr. No.	Description of Item	Estimate in Rs.
1	Retaining Wall (10.00m x 2.20m x 3.00m)	300086.42
2	Retaining Wall (12.00m x 2.20m x 3.00m)	505203.36
3	Sub Total -I (Sr. No. 1 + Sr. No. 2)	805289.78
4	Add 15% Contractor Profit	120793.47
5	Total Cost including Contractor Profit	926083.24
6	Add contingencies @3% of the total cost	27782.50
7	Total Cost including contingencies	953865.74
8	Say in Lacs	9.54

For OHP Project Pvt. Ltd.


Auth. Signatory


D.F.O. DALHOUSIE

RETAINING WALL COST ESTIMATION

Sr. No.	Item Code	Description of Item	Quantity	Unit	Rate in Rs.	Estimate in Rs.
A		Retaining Wall (10.00m x 2.20m x 3.00m)				
1	2.6	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.	26.40	cum		
	2.6.1	All Kind of Soil @ 50% of Sr. No. 1 of A	13.20	cum	131.05	1729.86
	2.7.1	Ordinary Rock @ 50% of Sr. No. 1 of A	13.20	cum	235.05	3102.66
2	2901	Stone Aggregate (Single size): 100 mm nominal size for Soling	4.06	cum	1350	5475.60
3	4.2.5	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing: 1:3:6 (1 cement : 3 coarse sand) : 6 graded stone aggregate 20 mm nominal size)	2.70	cum	6577.55	17785.70
4	7.2.1	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like. Cement mortar 1:6 (1 cement : 6 coarse sand)	42.00	cum	5843.55	245429.10
5	4.2.3	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing: 1:2:4 (1 Cement : 2 coarse sand) : 4 graded stone aggregate 20 mm nominal size)	0.36	cum	7107.1	2558.56
6	12.41.1	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes. 75 mm diameter	52.46	m	165.15	8663.77
7	23.5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	12.30	cum	1247.25	15341.18
8		Sub total -I				300086.42

For OHP Project Pvt. Ltd.

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B	Retaining Wall (12.00m x 2.20m x 3.00m)					
1	2 6	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m. as directed by Engineer-in-charge	31.20	cum		
	2 6 1	All Kind of Soil @ 50% of Sr. No. 1 of B	15.60	cum	131.05	2044.38
	2 7 1	Ordinary Rock @ 50% of Sr. No. 1 of B	15.60	cum	235.05	3666.78
2	2901	Stone Aggregate (Single size) 100 mm nominal size for Soling	4.84	cum	1350	6528.60
3	4 2 5	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing 1:3:6 (1 cement : 3 coarse sand) 6 graded stone aggregate 20 mm nominal size)	3.22	cum	6577.55	21206.02
4	7 2 1	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like. Cement mortar 1:6 (1 cement : 6 coarse sand)	48.00	cum	5843.55	280490.40
5	7 2 1	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like. Cement mortar 1:6 (1 cement : 6 coarse sand)	27.00	cum	5843.55	157775.85
6	4 2 3	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing 1:2:4 (1 Cement : 2 coarse sand) 4 graded stone aggregate 20 mm nominal size)	1.08	m	7107.1	7675.67
7	12.41.1	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS 13592 Type A, including jointing with seal ring conforming to IS 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes. 75 mm diameter	95.37	cum	165.15	15750.36
8	23 5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	8.07	cum	1247.25	10065.31
9		Sub total -I				505203.36

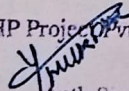
For OHP Project Ltd.

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Auth. Signatory

Estimate For Reclamation Of Dumping Area For CHANED SHEP 1.00MW

Sr. No.	Item of Work	Description	Quantity	Unit	Rate in Rs.	Amount in Rs.	Total Amount in Lacs	Remarks
20.20	10.00	MDS - 1						2.20
1	MDS - 1	Excavation in all kinds of soil for foundations of Retaining Walls	106.13	cum	180.00	19103.04		m Base Width of
2		Plain Cement Concrete in foundations 1:6:12 (1Cement : 6 Sand : 12 Aggregate 40mm nominal dia)	13.27	cum	4760.00	63146.16		Random Rubble Stone Masonary,
3		Random Rubble Stone Masonary in cm 1:6 (1Cement : 6 Sand)	160.80	cum	2954.00	475003.20		
4		Laying a layer 30cm fertile soil over the dumped muck i/c watering and Ramming.	60.60	cum	180.00	10908.00		1.00
5		P/L a layer of Geo - membrane over the freshly laid soil.	202.00	sqm	230.00	46460.00		m Top Width and
6		Planting locally grow able shrubs & trees.	202.00	sqm	24.00	4848.00		2.50
7		Periodic watch, ward and maintenance charges for seven years.	202.00	sqm	18.00	3636.00	6.23	m Avg Height
8.00	8.00	MDS - 2						2.20
1		Excavation in all kinds of soil for foundations of Retaining Walls	79.20	cum	180.00	14256.00		m Base Width of
2		Plain Cement Concrete in foundations 1:6:12 (1Cement : 6 Sand : 12 Aggregate 40mm nominal dia)	7.92	cum	4760.00	37699.20		Random Rubble Stone Masonary,

For OHP Project Pvt. Ltd


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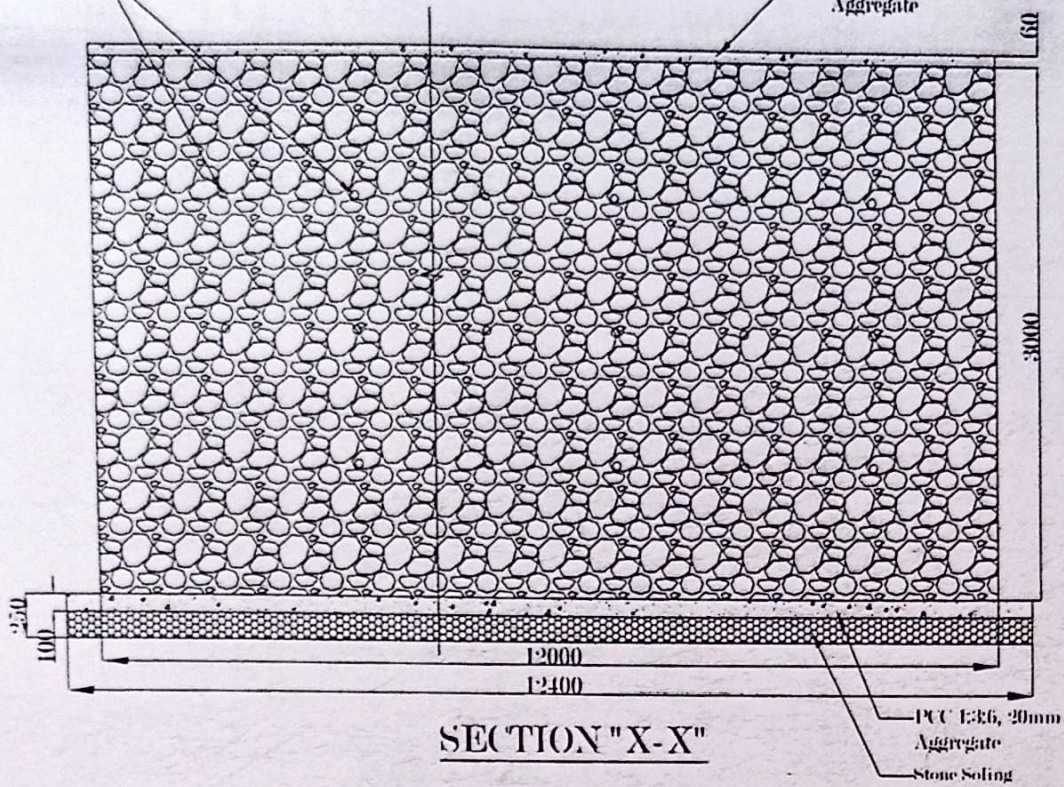
3	MDS - 2	Random Rubble Stone Masonary in cm 1:6 (1Cement : 6 Sand)	115.20	cum	2954.00	340300.80		
4		Laying a layer 30cm fertile soil over the dumped muck i/c watering and Ramming.	19.20	cum	180.00	3456.00	1.00	
5		P/L a layer of Geo - membrane over the freshly laid soil.	64.00	sqm	230.00	14720.00	m Top Width and	
6		Planting locally grow able shrubs & trees.	64.00	sqm	24.00	1536.00	3:00	
7		Periodic watch, ward and maintenance charges for seven years.	64.00	sqm	18.00	1152.00	4.13	m Avg Height
10.00		8.00	MDS - 3					2.20
1		MDS - 3	Excavation in all kinds of soil for foundations of Retaining Walls	85.80	cum	180.00	15444.00	m Base Width of
2	Plain Cement Concrete in foundations 1:6:12 (1Cement : 6 Sand : 12 Aggregate 40mm nominal dia)		8.58	cum	4760.00	40840.80	Random Rubble Stone Masonary,	
3	Random Rubble Stone Masonary in cm 1:6 (1Cement : 6 Sand)		145.60	cum	2954.00	430102.40		
4	Laying a layer 30cm fertile soil over the dumped muck i/c watering and Ramming.		24.00	cum	180.00	4320.00	1.00	
5	P/L a layer of Geo - membrane over the freshly laid soil.		80.00	sqm	230.00	18400.00	m Top Width and	
6	Planting locally grow able shrubs & trees.		80.00	sqm	24.00	1920.00	3.50	
7	Periodic watch, ward and maintenance charges for seven years.		80.00	sqm	18.00	1440.00	5.12	m Avg Height
Total Cost to Develop all Muck Dumping Sites						15.49		

For OHP Project Pvt Ltd.

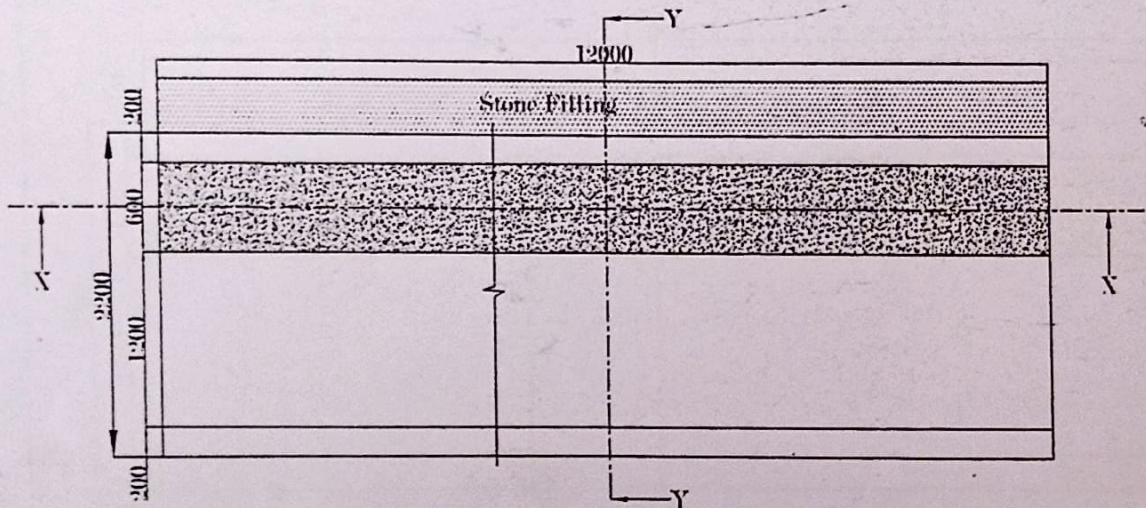
J. J. J.
Auth. Signatory

Weep Holes
75mm dia

PCC 1:2:4, 20mm
Aggregate



SECTION "X-X"



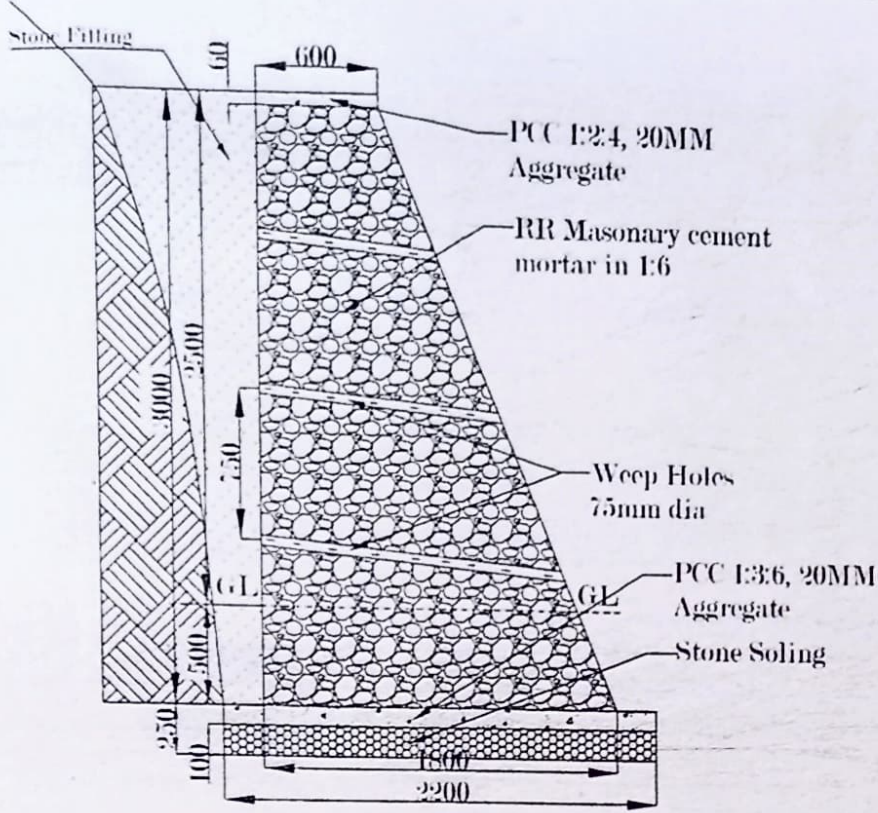
TOP ELEVATION

For OHP Project Pvt. Ltd.

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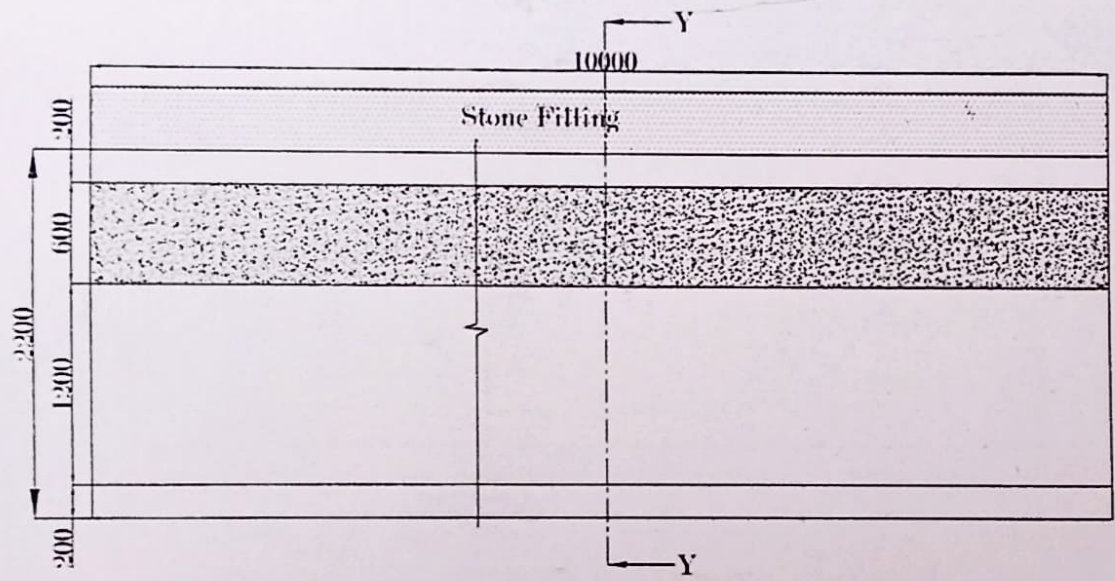
[Signature]
Divisional Forest Officer
Dalhousie Forest Division
Dalhousie Pin - 176304

CHAND SHEK (L.O.M.W) DISTE CHAMBA H.P.	
M.S.O.H.P. PROJECTS PVT LTD.	
DRAWN BY: SHIVALI	RETAINING WALL
CHECKED BY: MOHAN	POWER HOUSE
DESIGNED BY: SHIVALI	SCALE : NIS
DATE: 14-04-2022	



- NOTES**
1. All dimensions are in mm unless specified.
 2. Weep holes of 75 mm dia. opening shall be provided at 0.75 m interval and should be staggered both horizontally and vertically.
 3. A separation gap of 50-100mm shall be provided at maximum of 8m length of wall. Also gaps shall be provided at bends and junctions.
 4. Cement mortar ratio of 1:3 (Cement:Sand).
 5. The wall shall be properly cured for a minimum of two weeks to attain good bonding strength.
 6. Wall shall be aesthetically pleasing with provision for plantation.

SECTION "Y-Y"



TOP ELEVATION

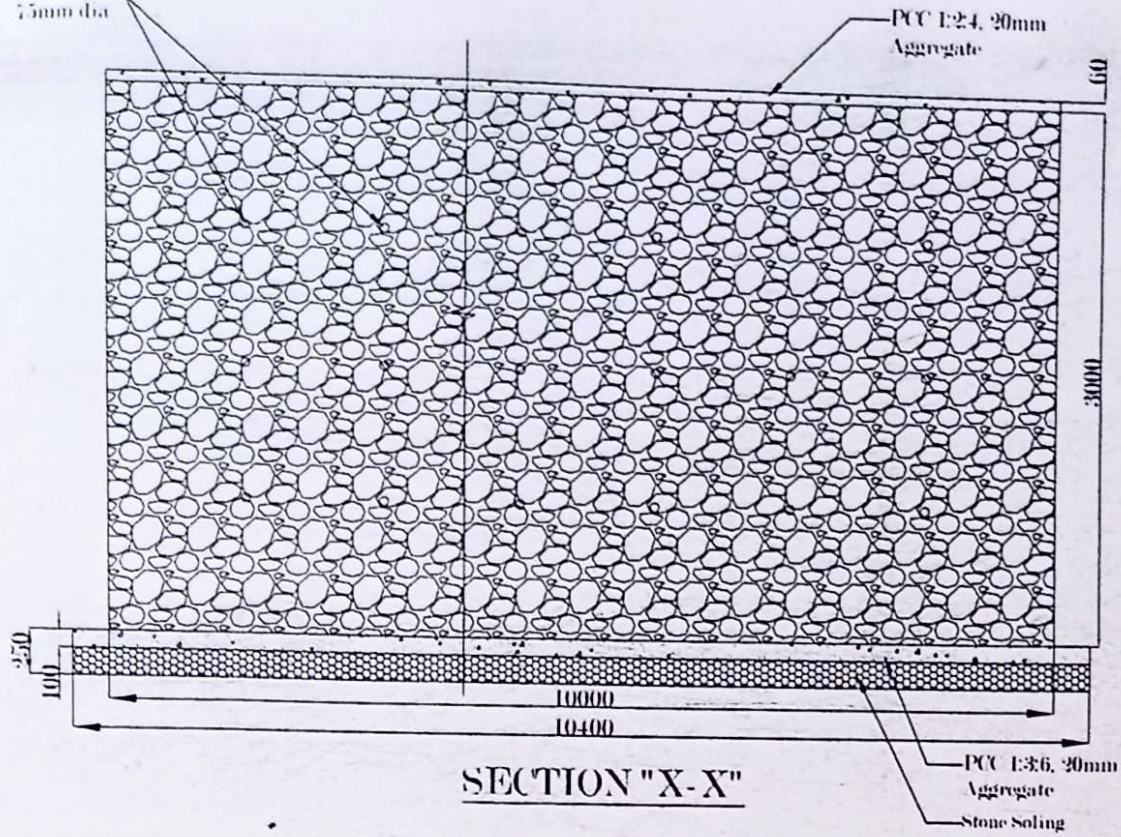
For OHP Project Pvt. Ltd.

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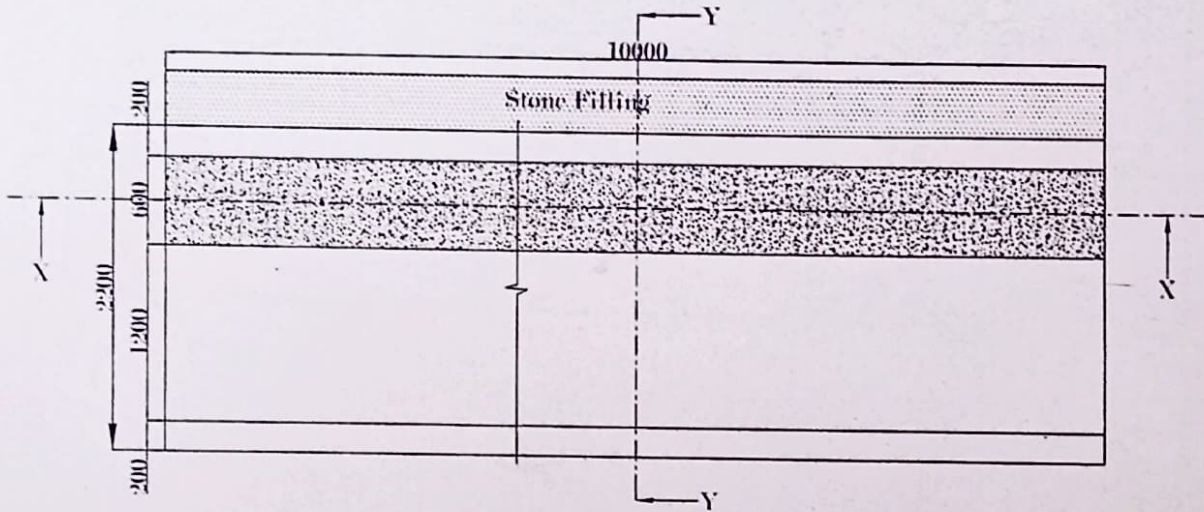
[Signature]
Divisional Forest Officer
Dalhousie Forest Division
Dalhousie Pin - 176304

CHANED SHEP(1.00 MW) DISTT. CHAMBA H.P.	
M & O.H.P. PROJECTS PVT LTD.	
DRAWN BY: SHIVALI	RETAINING WALL
CHECKED BY: MOHAN	DESILTING TANK
DESIGNED BY: SHIVALI	SCALE : NTS
DATE: 14-04-2022	

Wasp Holes
75mm dia



SECTION "X-X"



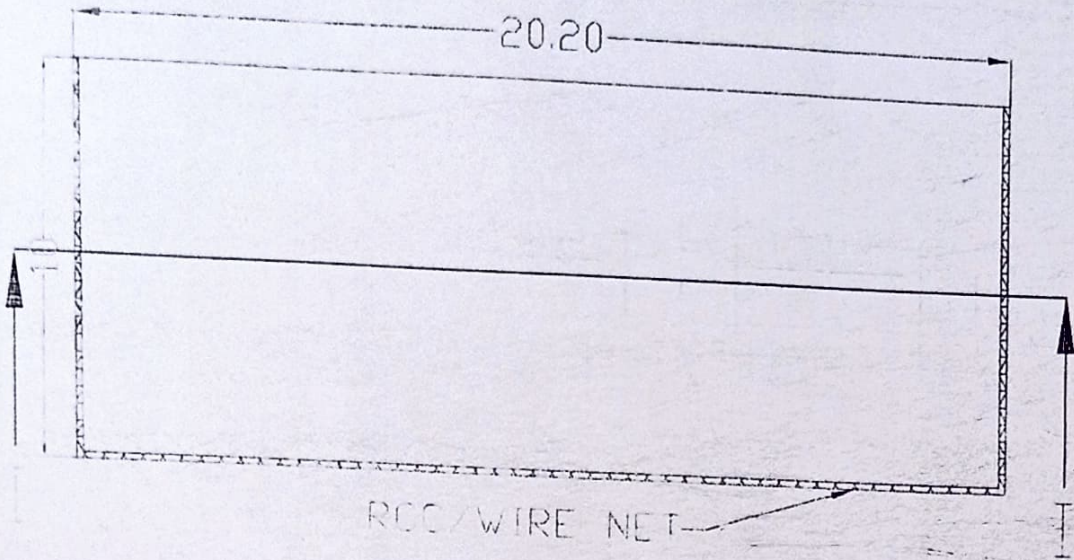
TOP ELEVATION

For OHP Project Pvt. Ltd.

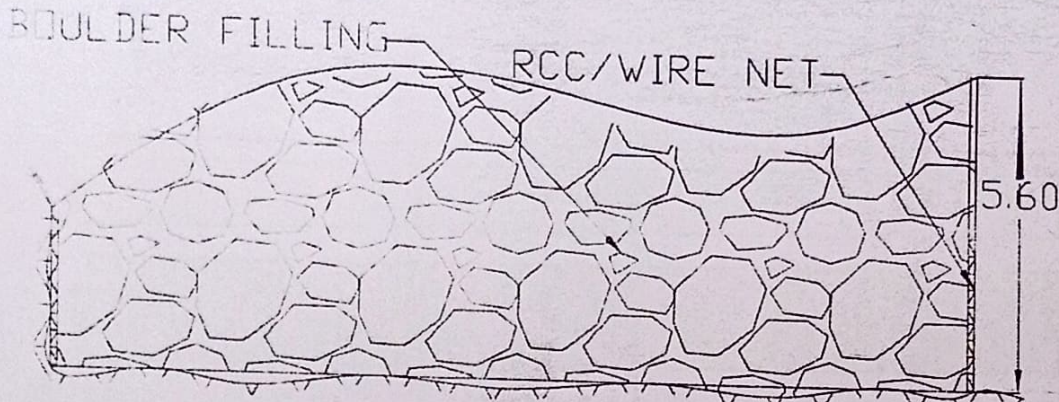
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[Signature]
Divisional Forest Officer
Dalhousie Forest Division
Dalhousie Pin - 176304

CHAND SHEIKH (100 MW) DISTT CHAMBA H.P.	
M.S. O.H.P. PROJECTS PVT LTD.	
DRAWN BY: SHIVALI	RETAINING WALL
CHECKED BY: MOHAN	DESULTING TANK
DESIGNED BY: SHIVALI	SCALE - NTS
DATE: 14-04-2021	



PLAN



SECTION I-I

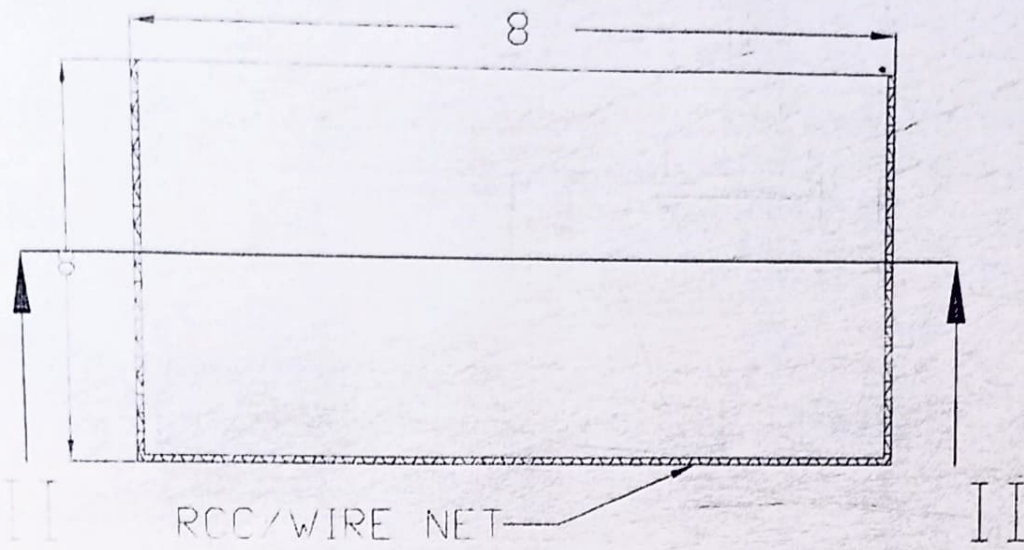
MUCK DUMPING SITE I

For OHP Project Pvt. Ltd.
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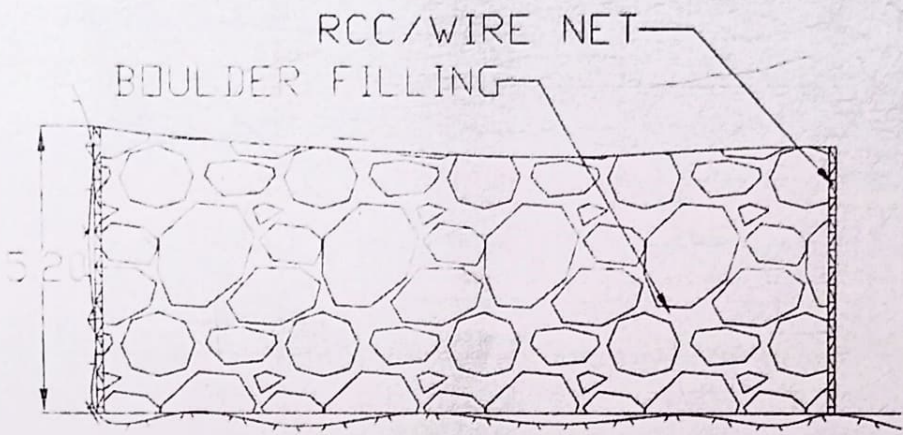
[Signature]
 Divisional Forest Officer
 Dalhousie Forest Division
 Dalhousie Pn - 176304

AREA = $20.20 \times 10 = 202$ SQM
 TOTAL CAPACITY = $202 \times 5.60 = 1131.20$ CUM

DETAIL OF MUCK DUMPING
 SITE I
 CHANED SMALL HYDRO
 POWER PROJECT, (1.0 MW)



PLAN



SECTION II-II

MUCK DUMPING SITE II

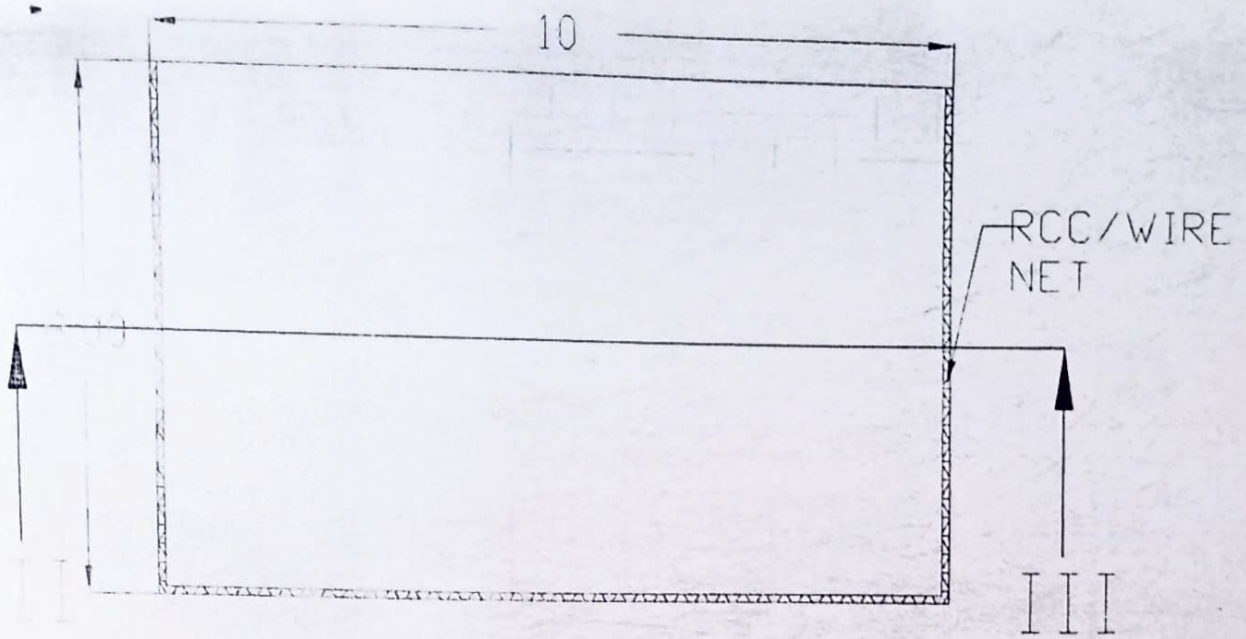
AREA = 8 X 8 = 64.00 SQM
TOTAL CAPACITY = 64 X 52 = 3328 CUM

DETAIL OF MUCK DUMPING SITE II
CHANED SMALL HYDRG POWER PROJECT (10 MW)

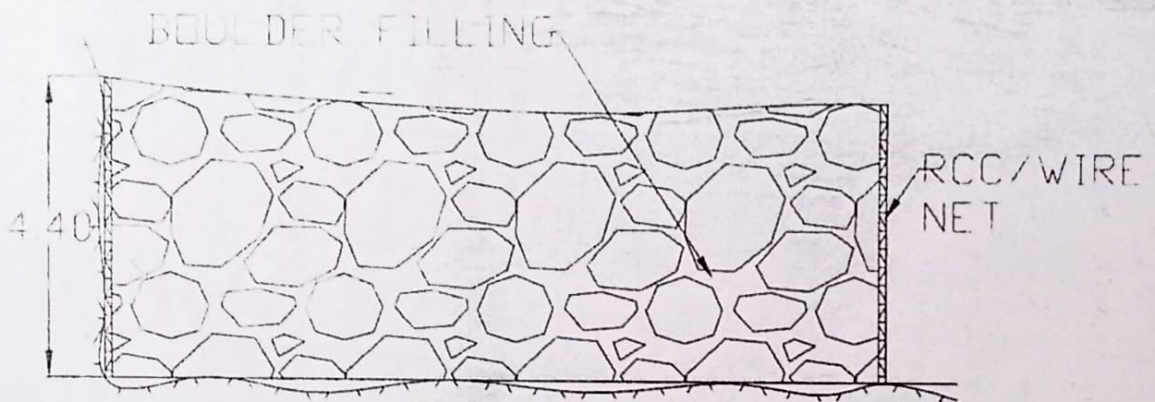
For OHP Project Pvt. Ltd.

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Auth. Signatory

[Signature]
Divisional Forest Officer
Dalhousie Forest Division
Dalhousie Pin - 176304



PLAN



SECTION III-III

MUCK DUMPING SITE III

For OHP Project Pvt. Ltd.

[Signature]
Auth. Signatory

[Signature]
Divisional Forest Officer
Dalhousie Forest Division
Dalhousie Pin - 176304
CHANED SMALL HYDRO
POWER PROJECT (10 MW)

AREA = 10 X 8.00 = 80 SQM

TOTAL CAPACITY = 80 X 4.4 = 352 CUM