

**GOVERNMENT OF MIZORAM  
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS  
DEPARTMENT OF ENVIRONMENT, FORESTS & CLIMATE CHANGE  
MIZORAM::AIZAWL**

No.B.22019/21/2020-FC/PCCF/187-188

Dated Aizawl the 16<sup>th</sup> June, 2022

To,

Under Secretary to the Govt. of Mizoram  
Environment, Forests & Climate Change Department  
Mizoram

**Subj :** *Proposal for diversion of 2.43278 ha of forest land for construction of Bypass at Chhiahtlang and Serchhip (Package-1) on Aizawl - Tuipang section of NH-54 in the State of Mizoram Engineering, Procurement and Construction (EPC) mode with JICA loan assistance - reg.*

**Ref:** 1. Ministry letter F.No. 3-MZ B 024/2021-SHI/671-72 dt. 03.06.2022  
2. T.O letter No. B.22019/20/2020-FC/PCCF/117-118 dt. 10.12.2022  
3. TO letter No. B. 22019/21/2020-FC/PCCF/128 Dt. 27.04.2022

Sir,

With reference to the subject and letter no. cited above, I am directed to state that the information requested by the IRO, Shillong vide their letter dt. 14.07.2021 was submitted by this office through Admin depts. Vide letter No. B.22019/21/2020-FC/PCCF/117-118 Dt. 10.12.2021 (copy enclosed). However, the report has not been received by the IRO Shillong therefore, it is re-submitted herewith for information and further necessary action please.

S.No	Additional Information required	Action taken
1	Soft copy of KML/Shape file for proposed Compensatory Afforestation area with GPS Coordinates	The required information is already submitted vide letter No. B.22019/20/2020-FC/PCCF/128 Dt.27.04.2022
2.	CA Scheme and Avenue Plantation Scheme to be duly approved by Competent Authority	Enclosed at Annexure I & II
3.	Proposal may be submitted in proper format of Part II	The required information is already submitted vide letter No. B.22019/20/2020-FC/PCCF/128 Dt.27.04.2022
4.	SOI toposheet map for proposed diversion may be submitted after duly signed by DFO concern	Attached as Annexure III
5.	Density of forest vegetation	Open forest (Canopy density 0.5)
6.	Nearest Distance for protected areas	19 kms
7.	Status of Forest Right Act, 2006	Not Applicable
8.	NPV calculation	Attached as Annexure-IV

9.	Length of the road with existing and proposed RoW	Length of road – 989 kms Existing RoW – 3.6M to 4.8M Proposed RoW – 6.5M to 7.8 M
10	Undertaking for Additional amount of NPV from User Agency	Attached as Annexure VI
11	Undertaking for extraction of trees from User Agency	Attached as Annexure VII
12	District profile in detail with respect to Geographical area, Forest Area of the District	Attached as Annexure V
13	Muck Disposal Plan with details of muck to be generated also with GPS Co-ordinates to be approved by Competent Authority	Attached as Annexure VIII
14	To complete the uploading of proposal on Ministry portal as it is showing pending at State Level	Uploading of Form A part I to V is completed.

Encl : As above

Yours faithfully,


  
(MZ SINGSON)  
Deputy Conservator of Forest (FC)

Memo No.B.22019/21/2020-FC/PCCF/187-188

Dated Aizawl the 16<sup>th</sup> June, 2022

Copy to :

- ✓ 1. Dy. Inspector General of Forests (c), Ministry of Environment, Forests & Climate Change, North Eastern Regional Office, Law-U-Sib, Lumbatngen, near MTC Workshop, Shillong-793021, E mail: [ro.nez.shil@gmail.com](mailto:ro.nez.shil@gmail.com)

  
(VANLALNUNPUII HMAR)  
Assistant Conservator of Forest (FC)



**GOVERNMENT OF MIZORAM**  
**OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS**  
**DEPARTMENT OF ENVIRONMENT, FORESTS & CLIMATE CHANGE**  
**MIZORAM::AIZAWL**

No.B.22019/21/2020-FC/PCCF/117-118

Dated Aizawl the 10<sup>th</sup> December, 2021

To,

Under Secretary to the Govt. of Mizoram  
 Environment, Forests & Climate Change Department  
 Mizoram

Subj :

*Proposal for diversion of 2.43278 ha of forest land for construction of Bypass at Chhiahtlang and Serchhip (Package-1) on Aizawl - Tuipang section of NH-54 in the State of Mizoram Engineering, Procurement and Construction (EPC) mode with JICA loan assistance - reg.*

Ref:

F.No. 3-MZ B 024/2021-SHI/532-33 dt. 14.07.2021

Sir,

With reference to the above letter, I am submitting herewith the required additional information and further necessary action -

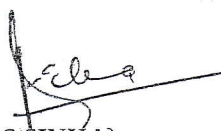
S.No	Additional Information required	Action taken
1	Soft copy of KML/Shape file for proposed Compensatory Afforestation area with GPS Coordinates	Under Process. The CA area for 2.43278 ha is not yet available with EF&CC Dept. User Agency was informed to approached LR&S Department for transfer and mutation.
2.	CA Scheme and Avenue Plantation Scheme to be duly approved by Competent Authority	Enclosed at Annexure I & II
3.	Proposal may be submitted in proper format of Part II	Due to pending of transfer and Mutation of land Form A part II cannot be completed
4.	SOI toposheet map for proposed diversion may be submitted after duly signed by DFO concern	Attached as Annexure III
5.	Density of forest vegetation	Open forest (Canopy density 0.5)
6.	Nearest Distance for protected areas	19 kms
7.	Status of Forest Right Act, 2006	Not Applicable
8.	NPV calculation	Attached as Annexure-IV
9.	Length of the road with existing and proposed RoW	Length of road - 989 kms Existing RoW - 3.6M to 4.8M Proposed RoW - 6.5M to 7.8 M
10	Undertaking for Additional amount of NPV from User Agency	Attached as Annexure VI

O/C

11	Undertaking for extraction of trees from User Agency	Attached as Annexure VII
12	District profile in detail with respect to Geographical area, Forest Area of the District	Attached as Annexure V
13	Muck Disposal Plan with details of muck to be generated also with GPS Co-ordinates to be approved by Competent Authority	Attached as Annexure VIII

Encl : As above

Yours faithfully,



(RS SINHA)

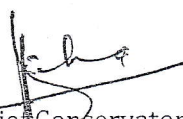
Addl. Principal Chief Conservator of Forests (WP)  
& Nodal Officer (FC)

Memo No.B.22019/21/2020-FC/PCCF/

Dated Aizawl the <sup>th</sup> December, 2021

Copy to :

1. General Manager (Projects), NHIDCL, PMU-Seling C/o Tourist Lodge Thingsulthiah for information and to approached Land, Revenue & Settlement Department for transfer & mutation of land.
2. General Manager (Admn.), NHIDCL, Regional Office – Aizawl 3<sup>rd</sup> Floor, T-86, Tuikhuahtlang for information, E-mail : [ro-mizoram@nhidcl.com](mailto:ro-mizoram@nhidcl.com)
3. Conservator of Forests (CC) for information.
4. Divisional Forest Officer, Thenzawl Forest Division for information.



Addl. Principal Chief Conservator of Forests (WP)  
& Nodal Officer (FC)



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**GOVERNMENT OF MIZORAM**  
**OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS**  
**DEPARTMENT OF ENVIRONMENT, FORESTS & CLIMATE CHANGE**  
**MIZORAM::AIZAWL**

No.B.22019/21/2020-FC/PCCF/128

Dated Aizawl the 27<sup>th</sup> April, 2022

To,

Under Secretary to the Govt. of Mizoram  
Environment, Forests & Climate Change Department  
Mizoram

**Subj:** *Proposal for diversion of 2.43278 ha of forest land for construction of Bypass at Chhiahtlang and Serchhip (Package-1) on Aizawl - Tuipang section of NH-54 in the State of Mizoram Engineering, Procurement and Construction (EPC) mode with JICA loan assistance - reg.*

**Ref:** 1. Ministry letter F.No. 3-MZ B 024/2021-SHI/532-33 dt. 14.07.2021  
2. T.O letter No. B.22019/21/2020-FC/117-118 Dt. 10.12.2021

Sir,

In continuation to this office letter under reference (2), I am to inform you that DFO concerned has completed Form A part II as per Ministry's letter F.No. 3-MZ B 024/2021-SHI/532-33 dt. 14.07.2021 under points no. 3. The Georeference map, SoI toposheet and Site Suitability certificate of CA land is enclosed for information and further onward submission to Regional Office, Shillong.

This is for information and necessary action.

Encl : As above

Yours faithfully,

  
(RITURAJ SINGH)

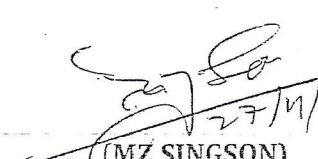
Addl. Principal Chief Conservator of Forests(FC)

Memo No.B.22019/21/2020-FC/PCCF/128

Dated Aizawl the 27<sup>th</sup> April, 2022

Copy to :

1. General Manager (Projects), NHIDCL, PMU-Seling C/o Tourist Lodge Thingsulthliah for information.
2. General Manager (Admn.), NHIDCL, Regional Office - Aizawl 3<sup>rd</sup> Floor, T-86, Tuikhuahtlang for information, E-mail : [ro-mizoram@nhidcl.com](mailto:ro-mizoram@nhidcl.com)
3. Conservator of Forests (CC) for information.
4. Divisional Forest Officer, Thenzawl Forest Division for information.

  
(MZ SINGSON)

Deputy Conservator of Forest (FC)

o/c

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**GOVERNMENT OF MIZORAM**  
**OFFICE OF THE DIVISIONAL FOREST OFFICER**  
**THENZAWL FOREST DIVISION**  
**THENZAWL : MIZORAM**

No.B.13021/1/2021-TFD/ 761-762

Dated the Thenzawl 14 October, 2021

To,

✓  
Addl. Principal Chief Conservator of Forests(Admn)  
& Nodal Officer (FC), Mizoram

**Subject :** *Proposal for diversion of 2.43278 ha. of forest land for construction of Bypass at Chhiahtlang and Serchhip (Packaged-1) on Aizawl-Tuipang section of NH-54 to 2 in the state of Mizoram Engineering, Procurement and construction (EPC) mode with JICA loan assistance-reg.*

**Ref. :** *No.B.22019/20/2020-FC/PCCF/143 dt.22.09.2021.*

Sir,

With reference the above, I am submitting herewith the information sought vide reference letter No. given above.


Sl. No.	Additional Information required	Action to be taken
1	Soft copy of KML/Shape file for proposed Compensatory Afforestation area with GPS Coordinates	Under process. The CA area of 2.43278 Ha is not yet available with EF&CC Dept and hence Revenue dept may be approached for transfer and mutation of the CA area of 2.43278 Ha.
2	CA Scheme and Avenue Plantation Scheme to be duly approved by Competent Authority	Enclosed at annexure -II
3	Proposal may be submitted in proper format of Part II	Due to want of 2.43278 Ha CA area from Revenue dept, FORMA A Part II can not be completed online from this end.
4	SOI toposheet map for proposed diversion may be submitted after duly signed by DFO Concern.	Soft copy enclosed at CD Hard copy enclosed at annexure-III
5	Density of forest vegetation	Open Forest (canopy density 0.5)
6	Nearest Distance for protected areas	19 Kms.
7	Status of Forest Right Act, 2006	Not applicable
8	NPV calculation	Enclosed at annexure-IV
9	Length of the road with existing and proposed RoW	Length of the road-989 Mtrs. Existing RoW-3.6 m-4.8 m Proposed RoW-6.5m-7.8m.

10	Undertaking for Additional amount of NPV from user agency.	-
11	Undertaking for extraction of trees from user agency.	-
12	District profile in detail with respect to Geographical area, Forest Area of the District.	Enclosed at annexure-V
13	Muck Disposal Plan with details of muck to be generated also with GPS Co-ordinates to be approved by competent Authority.	-

This is for kind information and necessary action.

Enclo : As above.

Yours faithfully,

 13/10/21  
(LALBIAKCHAMA CHAWNGTHU)  
Divisional Forest Officer  
Thenzawl Forest Division  
Thenzawl : Mizoram

Memo No.B.13021/1/2021-TFD/\_\_\_\_\_

Dated the Thenzawl \_\_\_\_ October, 2021

Copy to :

- 1) Conservator of Forests, Central Circle, Aizawl for kind information.

Divisional Forest Officer  
Thenzawl Forest Division  
Thenzawl : Mizoram



# ESTIMATE FOR CARRYING OUT AVENUE PLANTATION ALONG NH-54 ROAD, PACKAGE-I (CHHIAHTLANG & SERCHHIP BYPASS)

1. Project Name : Diversion of 2.43278 ha. of forest land for construction of Bypass at Chhiatlang and Serchhip (Package-1) on Aizawl-Tuipang section of NH-54 to 2 in the state of Mizoram Engineering, Procurement and construction (EPC) mode with JICA loan assistance.
2. Species proposed to be Planted : *Delonix regia*  
*Messua ferrea*  
*Artocarpus heterophyllus*  
*Mangifera indica*  
*Azadirachta indica*  
*Ligustrum robustum*  
*Bischofia javanica*
3. Implementing Agency : Environment, Forests & Climate Change Department, Mizoram
4. Time scheduled : Advanced work, creation of plantation and maintenance upto 8 years

(Rs. 380 /- per manday)

(1100 plants per 3 km which is taken as 1 hectare)

(Spacing 3X3 m)

Sl. No.	Item of works	Mandays required (in No.)	Labour component (in Rs.)	Material component (in Rs)	Total cost per Hectare (in Rs)
1	2	3	4	5	6
p1.	<b>Advance Works including Nursery.</b>				
	(a) Survey and demarcation nursery site and planting site	12	4560	-	4560
	(b) Preparation of nursery bed, shed erection with netlon	20	7600	-	7600
	(c) Cost of seed	-	-	2700	2700
	(d) Cost of materials like poly bags, netlon and fertilizers etc	-	-	8100	8100
	(e) Pre-treatment of seeds including cost of fungicides, fumigants, soil sterilants, etc	17	6460	-	6460
	(f) Sowing of seeds and weeding, watering	16	6080	-	6080
	(g) Fire protection	5	1900	-	1900
	<b>Sub-Total</b>	<b>70</b>	<b>26600</b>	<b>10800</b>	<b>37400</b>
2.	<b>Creation of plantation</b>				
	(a) Alignment, preparation of stakes, digging of pits, preparation of planting materials, carriage to planting sites, planting/sowing, construction of camp sheds, inspection parts, signboards and other misc. works	40	15200	-	15200
	(b) Weeding 4 times including vacancy filling (30+20+20+20)	90	34200	-	34200
	(c) Fire protection measures and ward and watch(5+5)	10	3800	-	3800
	(d) Manuring & Watering	10	3800	-	3800
	(e) Cost of manures/fertilizers			5400	5400
	(f) Fencing /tree guard (Local materials) including subsequent maintenance.	-	-	37800	37800
	<b>Sub-Total</b>	<b>150</b>	<b>57000</b>	<b>43200</b>	<b>100200</b>
3	<b>Maintenance of plantation</b>				
	<b>(I) Maintenance after one year</b>				
	(a) Weeding 3 times including vacancy filling, manuring & watering (20+20+20+10)	70	26600		26600
	(b) Fire protection measures & watch and	10	3800		3800



	ward(5+5)				
	(c) Cost of manures/fertilizers			5400	5400
	(d) Signboard and labeling etc	-	-	5400	5400
	<b>Sub-Total</b>	<b>80</b>	<b>30400</b>	<b>10800</b>	<b>41200</b>
	<b>(II) Maintenance after two years</b>				
	(a) Weeding 3 times vacancy filling , manuring & Watering (15+15+10+10)	50	19000	-	19000
	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(c) Cost of fertilizers/manures			5400	5400
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
	<b>(III) Maintenance after three years</b>				
	(a) Weeding 3 times vacancy filling , manuring & Watering (15+15+10+10)	50	19000	-	19000
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	(c) Cost of fertilizers/manures			5400	5400
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
	<b>(IV) Maintenance after four years</b>				
	(d) Weeding 3 times vacancy filling , manuring & Watering (15+15+10+10)	50	19000	-	19000
	(e) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(f) Cost of fertilizers/manures			5400	5400
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
	<b>(V) Maintenance after five years</b>				
	(d) Weeding 3 times vacancy filling , manuring & Watering (15+15+10+10)	50	19000	-	19000
	(e) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>		<b>22800</b>
	<b>(VI) Maintenance after six years</b>				
	(f) Weeding 3 times vacancy filling , manuring & Watering (15+15+10+10)	50	19000	-	19000
	(g) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>		<b>22800</b>
	<b>(VII) Maintenance after seven years</b>				
	(h) Weeding 3 times vacancy filling & manuring & Watering (15+15+10)	40	15200	-	15200
	(i) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>50</b>	<b>19000</b>		<b>19000</b>
	<b>(VIII) Maintenance after eight years</b>				
	(j) Weeding 3 times (10+10+10)	30	11400	-	11400
	(k) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>40</b>	<b>15200</b>		<b>15200</b>
	<b>TOTAL OF PLANTATION COST</b>	<b>690</b>	<b>262200</b>	<b>81000</b>	<b>343200</b>
4	Soil & Moisture Conservation measures including construction of check dams, gully plugging, contour trenching, water harvesting structures etc. whatever necessary within the project area (15% of plantation cost)				51480
5	Fencing (5% of plantation cost)				17160
6	Monitoring & Evaluation (2% of plantation cost)				6864
7	Overheads (10% of plantation cost)				34320
	<b>Grand Total</b>				<b>453024</b>

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Component-wise breakup	Forest land(ha)	Length of forest(in kms)
Road km 0.111 to km 1.100	2.43278	0.989

Therefore, Cost of raising Avenue Plantation along both side of 0.989km road

=  $(2 \times 0.989) / 3 \times 453024$

= Rs. 2,98,693.824/-

Or Say Rs.2,98,694/-

*(Rupees Two lakh, ninety eight thousand six hundred ninety four) only*

  
(LALBIAKCHAMA CHAWNGTHU)

Divisional Forest Officer  
Thenzawl Forest Division  
Thenzawl:Mizoram



**CA SCHEME FOR DIVERSION OF 2.43278 HA. OF FOREST LAND FOR CONSTRUCTION OF BYPASS  
AT CHHIAHTLANG AND SERCHHIP (PACKAGED-1) ON AIZAWL-TUIPANG SECTION OF NH-54**

1. Model of afforestation : Artificial Regeration.
2. Species proposed to be Planted :  
*Delonix regia*  
*Messua ferrea*  
*Artocarpus heterophyllus*  
*Mangifera indica*  
*Azadirachta indica*  
*Ligustrum robustum*  
*Bischofia javanica*
3. Implementing Agency : Environment, Forests & Climate Change  
Department, Mizoram
4. Time scheduled : Advanced work ,creation of plantation  
and maintenance upto 8 years

**ANALYSIS OF PER HA RATE FOR VARIOUS WORKS ITEMS UNDER COMPENSATORY AFFORESTATION**

(Rs. 380 /- per manday)

(1100 plants per hectare)

Sl. No.	Item of works	Mandays required (in No.)	Labour component (in Rs.)	Material component (in Rs)	Total cost per Hectare (in Rs)
1	2	3	4	5	6
1.	<b>Advance Works including Nursery.</b>				
	(a) Survey and demarcation nursery site and planting site	12	4560	-	4560
	(b) Preparation of nursery bed, shed erection with netlon	20	7600	-	7600
	(c) Cost of seed	-	-	2700	2700
	(d) Cost of materials like poly bags, netlon and fertilizers etc	-	-	8100	8100
	(e) Pre-treatment of seeds including cost of fungicides, fumigants, soil sterilants, etc	17	6460	-	6460
	(f) Sowing of seeds and weeding, watering	16	6080	-	6080
	(g) Fire protection	5	1900	-	1900
	<b>Sub-Total</b>	<b>70</b>	<b>26600</b>	<b>10800</b>	<b>37400</b>
2.	<b>Creation of plantation</b>				
	(a) Alignment, preparation of stakes, digging of pits, preparation of planting materials, carriage to planting sites, planting/sowing, construction of camp sheds, inspection parts, signboards and other misc. works	40	15200	-	15200
	(b) Weeding 4 times including vacancy filling (30+20+20+20)	90	34200	-	34200
	(c) Fire protection measures and ward and watch(5+5)	10	3800	-	3800
	(d) Manuring & Watering	10	3800	-	3800
	(e) Cost of manures/fertilizers			5400	5400
	(f) Fencing /tree guard (Local materials) including subsequent maintenance.	-	-	37800	37800
	<b>Sub-Total</b>	<b>150</b>	<b>57000</b>	<b>43200</b>	<b>100200</b>
3	<b>Maintenance of plantation</b>				
	<b>(I) Maintenance after one year</b>				
	(a) Weeding 3 times including vacancy filling , manuring & watering (20+20+20+10)	70	26600		26600
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	(c) Cost of manures/fertilizers			5400	5400
	(d) Signboard and labeling etc	-	-	5400	5400
	<b>Sub-Total</b>	<b>80</b>	<b>30400</b>	<b>10800</b>	<b>41200</b>
	<b>(II) Maintenance after two years</b>				
	(a) Weeding 3 times vacancy filling , manuring & Watering (15+15+10+10)	50	19000	-	19000



	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(c) Cost of fertilizers/manures			5400	5400
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
	<b>(III) Maintenance after three years</b>				
	(a) Weeding 3 times vacancy filling, manuring & Watering (15+15+10+10)	50	19000	-	19000
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	(c) Cost of fertilizers/manures			5400	5400
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
	<b>(IV) Maintenance after four years</b>				
	(d) Weeding 3 times vacancy filling, manuring & Watering (15+15+10+10)	50	19000	-	19000
	(e) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(f) Cost of fertilizers/manures			5400	5400
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
	<b>(V) Maintenance after five years</b>				
	(d) Weeding 3 times vacancy filling, manuring & Watering (15+15+10+10)	50	19000	-	19000
	(e) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>		<b>22800</b>
	<b>(VI) Maintenance after six years</b>				
	(f) Weeding 3 times vacancy filling, manuring & Watering (15+15+10+10)	50	19000	-	19000
	(g) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>		<b>22800</b>
	<b>(VII) Maintenance after seven years</b>				
	(h) Weeding 3 times vacancy filling & manuring & Watering (15+15+10)	40	15200	-	15200
	(i) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>50</b>	<b>19000</b>		<b>19000</b>
	<b>(VIII) Maintenance after eight years</b>				
	(j) Weeding 3 times (10+10+10)	30	11400	-	11400
	(k) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>40</b>	<b>15200</b>		<b>15200</b>
	<b>TOTAL OF PLANTATION COST</b>	<b>690</b>	<b>262200</b>	<b>81000</b>	<b>343200</b>
4	Soil & Moisture Conservation measures including construction of check dams, gully plugging, contour trenching, water harvesting structures etc. whatever necessary within the project area (15% of plantation cost)				51480
5	Fencing (5% of plantation cost)				17160
6	Monitoring & Evaluation (2% of plantation cost)				6864
7	Overheads (10% of plantation cost)				34320
	<b>Grand Total</b>				<b>453024</b>

Resultant cost of CA for construction of Bypass at Chhiahtlang and Serchhip (Packaged-1) on Aizawl-Tuipang Section of NH-54

2.43278 Ha. X453024 = Rs.11,02,107.72 Or Say Rs.11,02,100/-

(Rupees eleven lakh, two thousand one hundred) only.

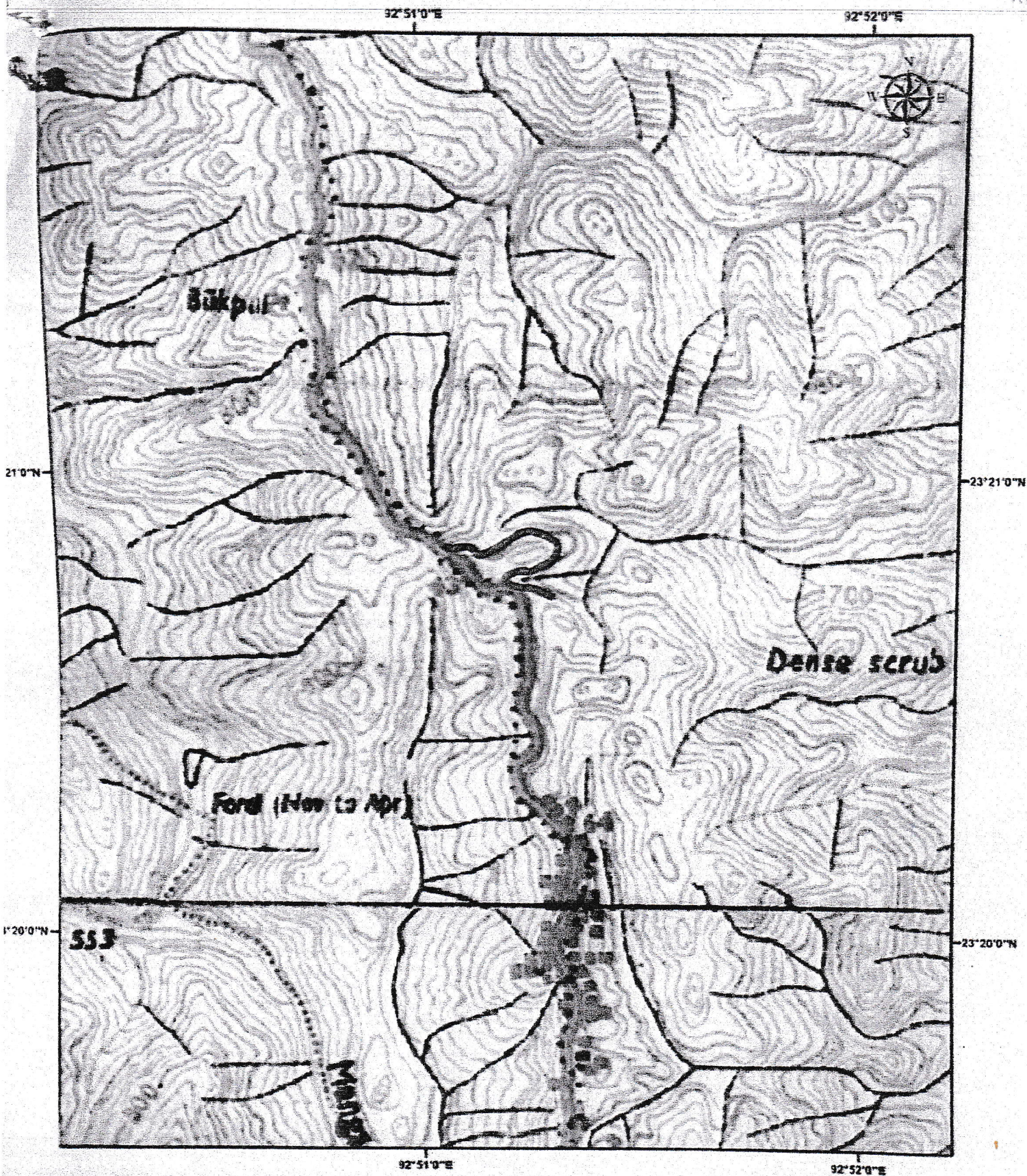
(LALBIAKCHAMA CHAWNGTHU)

Divisional Forest Officer  
Thenzawl Forest Division



20 SHEET MAP SHOWING DIVERSION OF 2.43278 HA FOR BYPASS AT SERCHHIP (PACKAGE-1)  
ON AIZAWL TO TUIPANG SECTION OF NH54

ANNEXURE  
-10-



Scale - 1:20,000

Legend

Bypass Road

*Lalbiakchama Chawngthu*  
LALBIAKCHAMA CHAWNGTHU  
Divisional Forest Officer  
Thenzawl Forest Division  
Thenzawl, Mizoram

Open Forest: 23971.41 Sqm  
Acres Forest: 414.48 Sqm

Prepared by  
IS Cell, EP & CC Dept, Mizoram




**Calculation of Net Present Value for diversion of 2.43278 ha. of forest land for construction of Bypass at Chhiahtlang and Serchhip (Package-1) on Aizawl – Tuipang section of NH-54.**

Area of Forest land proposed to be diverted within Thenzawl Forest Division	2.43278 Ha.
Eco- class of the forest land to be diverted	Class-1
Vegetation density	Canopy density-0.5
Rate per Eco-class of the forest area	Rs.7,30,000.00
Resultant cost of Net Present Value	Rs. 17,75,929.40

**Total amount of NPV payable for 2.43278 Ha. of forest land within Thenzawl Forest Division: Rs. 17,75,929.40**

*(Rupees seventeen lakhs seventy five thousand nine hundred twenty nine) only.*

Prepared by,

  
**(LALBIAKCHAMA CHAWNGTHU)**  
Divisional Forest Officer  
Thenzawl Forest Division  
Thenzawl : Mizoram

## DISTRICT PROFILE OF SERCHHIP

Serchhip District is one of the eleven district of Mizoram state in India. The district occupies an area of 1421.60 km<sup>2</sup>. Serchhip town is the administrative headquarters of the district. This district came into existence on 15 September 1998. Population (2011) of 64,937, Demographics (Literacy-97.91%, Sex ratio-977 per thousand).


The district is bounded on the north and northwest by Aizawl District, on the west and south by Lunglei District, on the southeast by Myanmar (Burma), and on the east by Champhai District.

The district is mostly a hilly terrain with some alluvial benches along its rivers that are utilised for agriculture. Serchhip District lies between the Mat River and the Tuikum River. With an average elevation 888 metres (2,913 ft), the average annual daily temperature ranges from 15 °C to 27 °C and the rainfall is moderate.

In 1991 the area became home to the Khawnglung Wildlife Sanctuary, which has an area of 35 km<sup>2</sup>.

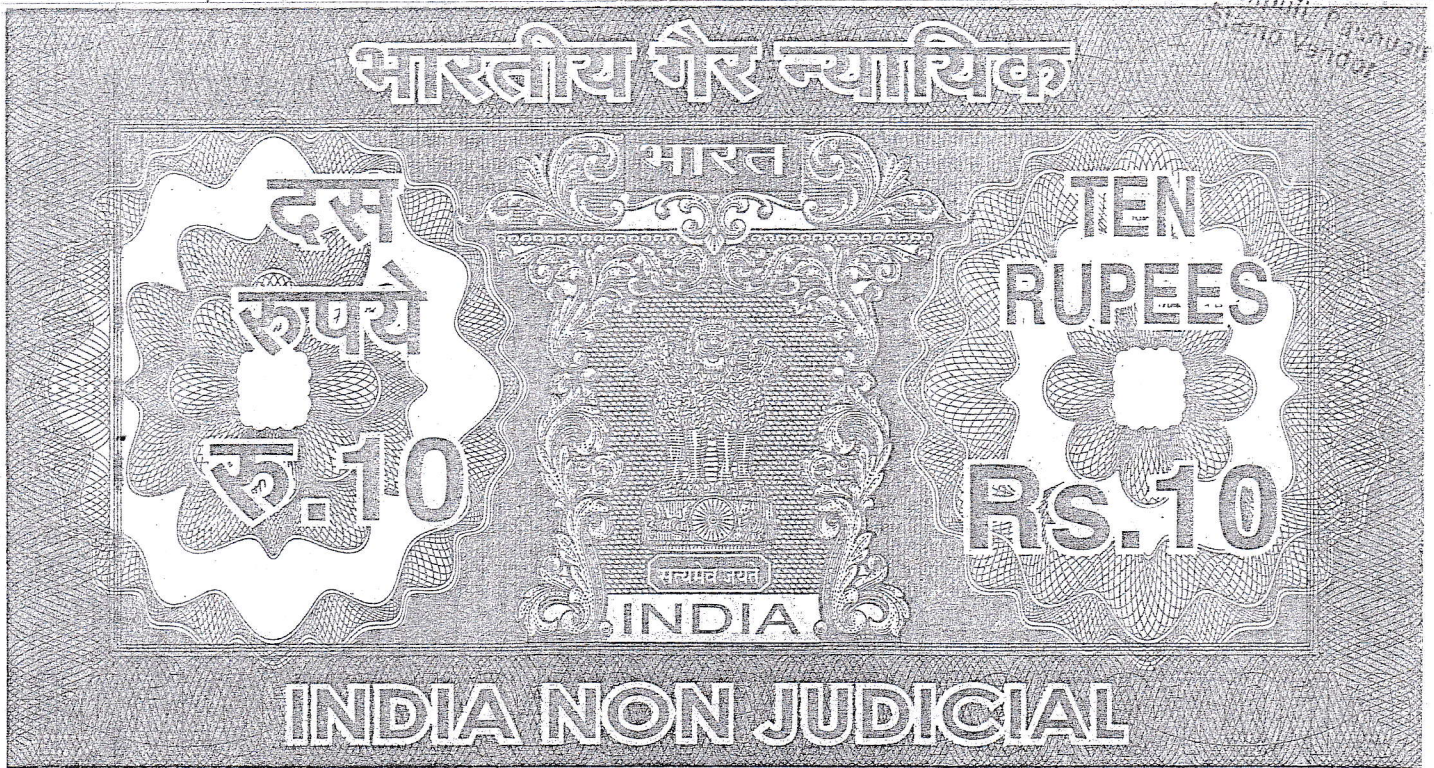
### Forest Cover of Serchhip District:

District	Geographical Area (GA)	2019 Assessment				% of GA
		Very Dense Forest	Mod. Dense Forest	Open Forest	Total	
Serchhip	1,421	16.88	360.70	784.07	1,161.65	81.75

  
 Divisional Forest Officer  
 Thenzawl Forest Division  
 Thenzawl, Mizoram



ANNEXURE VI (153)  
Lalhimnuli Pashu  
Siano Vano



मिज़ोरम MIZORAM

01AA 219419

Date: 28.08.2021

**UNDERTAKING BY USER AGENCY**

**For Net Present Value**

NHIDCL, is liable to pay the Net Present Value cost as per the demand note to be issued by the Government. While processing the proposal, if there is any increase in Net Present Value cost decided by the Government, NHIDCL is ready to pay the increased amount.

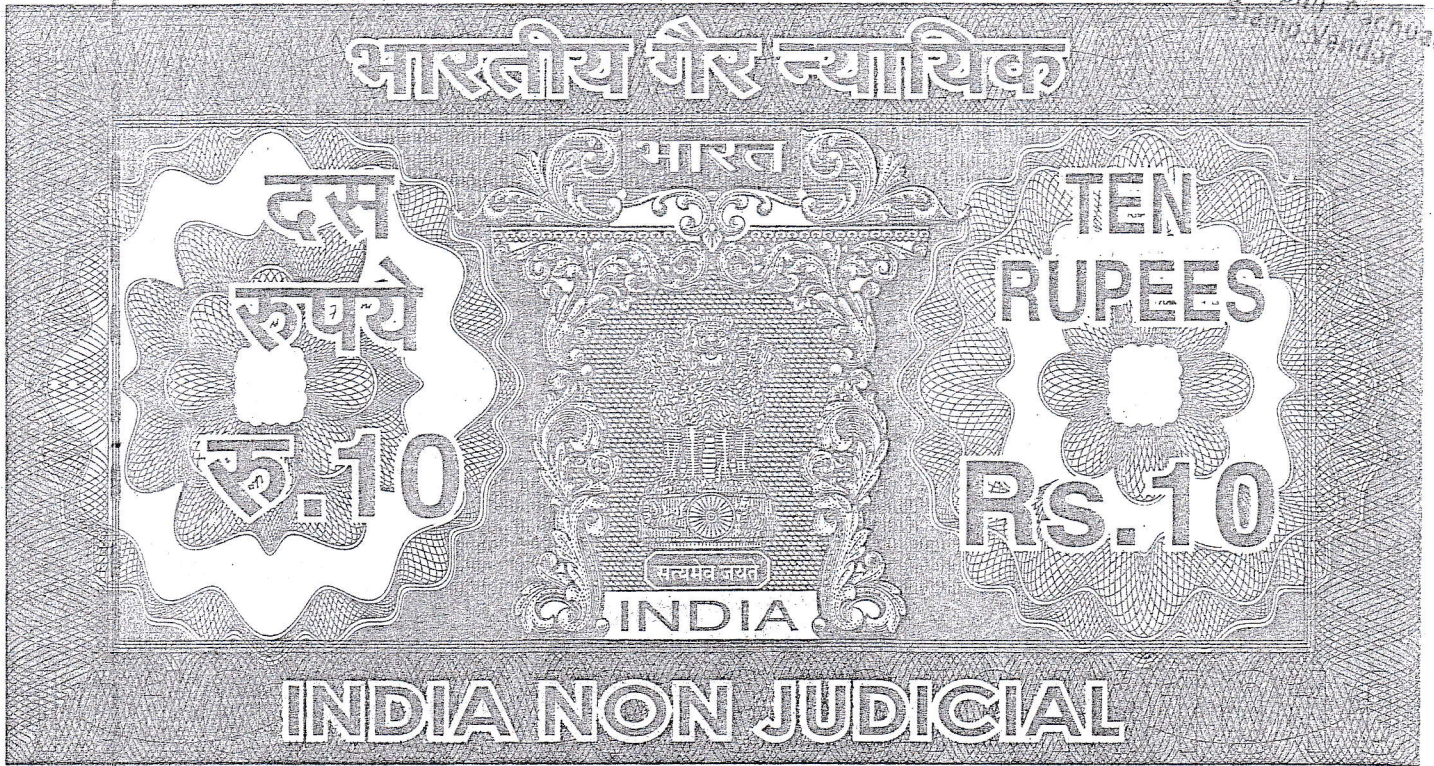
**For Additional amount of the Net Present Value**

Do hereby undertake to bear the cost of Additional amount of the Net Present Value of the diverted deemed forest land measuring 2.43278 Ha in Aizawl & Serchhip District. If any becoming due after finalizing/revision of the same by the Hon'ble 'Supreme Court of India.

a

(Adil Singh)  
General Manager (P), PMU-Selling,





मिज़ोरम MIZORAM

01AA 219418

Date: 28.08.2021

**UNDERTAKING FOR EXTRACTION OF TREES**

**Project Name:** Proposal for diversion of 2.43278 ha of forest land for Construction of Bypass at Chhiathlang & Serchhip (Package-1) on Aizawl-Tuipang section of NH-54 in the state of Mizoram Engineering, Procurement and Construction (EPC) mode with JICA loan assistance.

**User Agency:** National Highways & Infrastructure Development Corporation Ltd.

This is to certify that the extraction of trees in 2.43278 Hectare of forest area in Serchhip district in Mizoram State being diverted for non-forest purpose under forest Conservation Act, 1980 shall be realized by 'National Highways & Infrastructure Development Corporation Ltd.' upon the quality of forest, density and the type of species in the area as per demand note raised by DFO under guidelines of Ministry of Environment & Forest, Govt. of India.

(Adil Singh)

General Manager (Projects)  
NHIDCL, PMU-Seling, Mizoram



Sub: Construction of Chhlahtlang and Serchhip bypasses (Package-1) on Aizawl-Tuipang section of NH-54 in the State of Mizoram on Engineering, Procurement and Construction (EPC) mode, with Japan International Cooperation Agency (JICA) loan assistance. "Forest Clearance" - Reg.

#### Muck Disposal Plan

At the time of Execution, a large volume of muck will be generated and the same will be dumped, levelled and compacted at the proposed location of dumping ground.

In view of above, the project being on the EPC Mode of contract, the actual volume to be generated will be assessed at the time of execution and the same will be approved by the Authority engineers deployed by the user agency i.e. NHIDCL.

#### **Design of the Muck/Spoil Bank at site:**


At the disposal site on valley side, the care will taken at the time of selection of site so that there is minimum damage to the flora & fauna and the environmental conditions.

When unsuitable material below sub-grade level in cut or below embankment foundation level is planned to be removed, the soil left in place after the removal of the unsuitable material shall be compacted to a depth of 20 cm and a density of 90 percent of the maximum dry density determined according to the relevant specifications.

Unsuitable Material shall be removed and disposed of in Spoil Banks in such a manner as to have a neat appearance and not to obstruct drainages to the highway and not to cause injury to highway works or property. If it becomes necessary to locate or relocate any Spoil Bank, the Contractor shall obtain prior approval from the Authority Engineer.

The relevant and applicable provisions "Environmental Control and Protection" shall be adhered during planning of muck disposal and its hauling.

The Spoil-Banks shall be design in accordance with the requirements shown in **Table-1** and the typical arrangement shown in **Figure-1**.

  
28/8/2021

**ADIL SINGH**  
General Manager (P)  
PMU-Seling  
NHIDCL



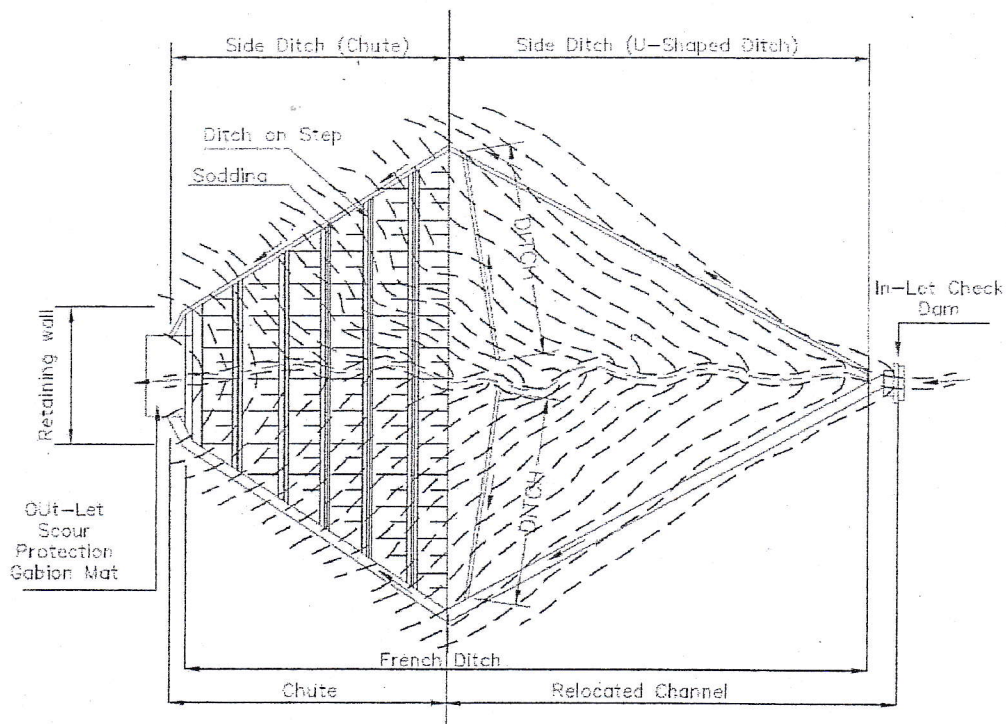


Figure-1(a): Typical Arrangement for Spoil Banks: Plan

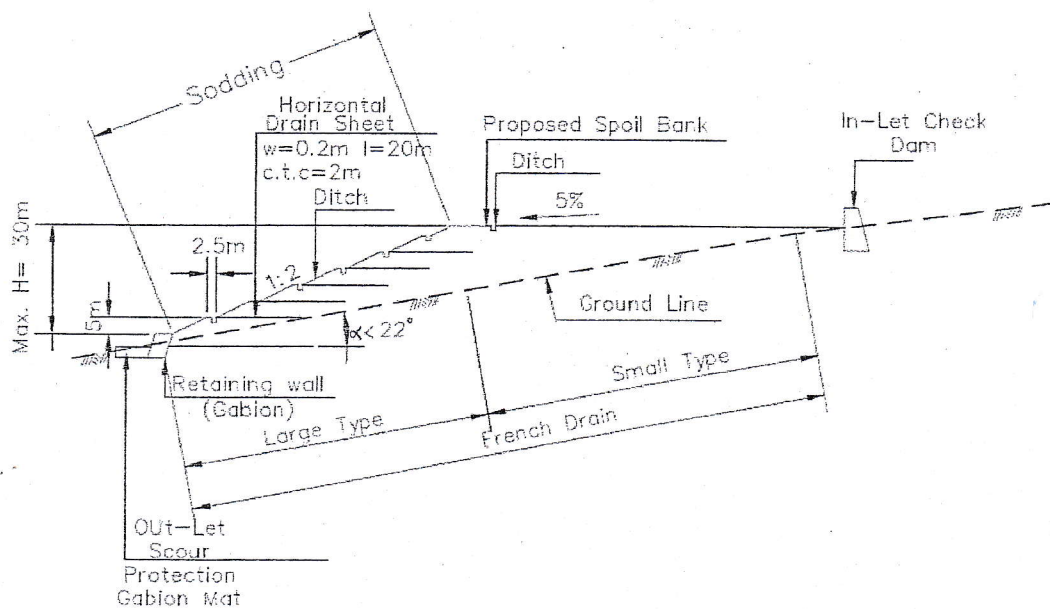
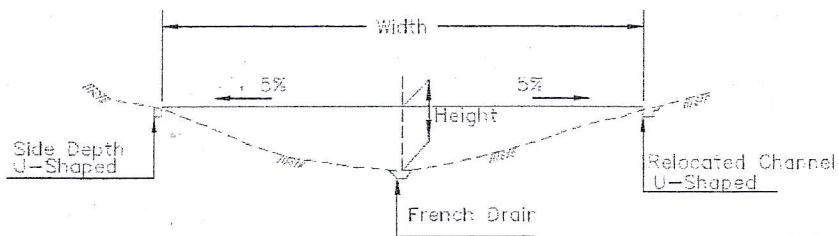


Figure-1(b): Typical Arrangement for Spoil Banks: Profile



**Figure-1(c): Typical Arrangement for Spoil Banks: Cross Section of French Drain**

The Gabion wall and retaining wall has been proposed to protect the slope on valley side and the same shall be compacted and levelled properly, so that Playground and other community places can be developed for the public purposes. The details of dumping ground and the GPS Coordinates has been attached at **Enclosure-I**.

The Typical drawing for the construction of Gabion and retaining wall has been attached at **Enclosure-II**.

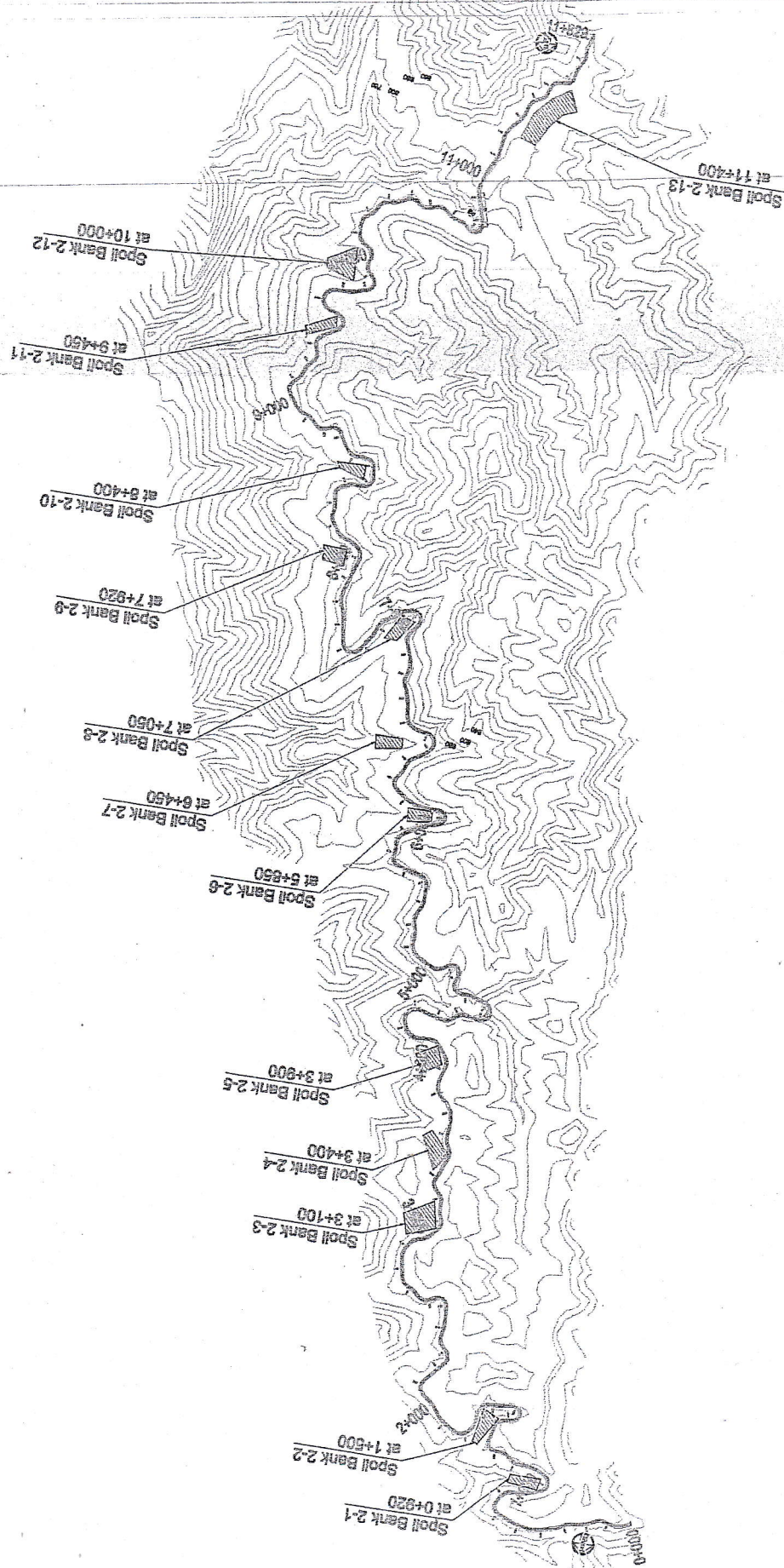
The Linear Plan of Muck Disposal Site/Spoil Banks has been attached at **Enclosure-III**.







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[illegible]

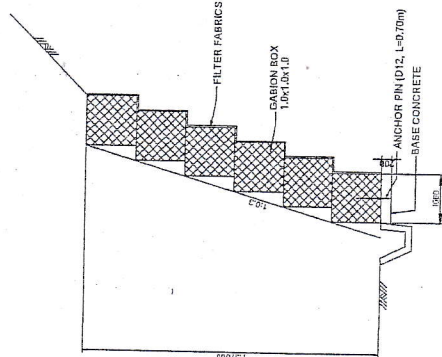


**Spoil Bank Location**

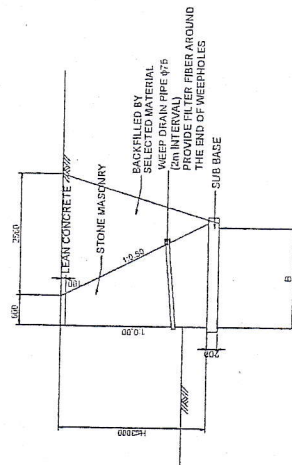
**Total Capacity of Spoil Bank (cum)**

# TYPICAL DETAILS OF RETAINING WALL (2/3) GABION & GRAVITY WET MASONRY WALLS SCALE 1:100

TYPE-A (GB-A)  
FRONT GRADES 1:0.3  
FOR CUT SLOPE

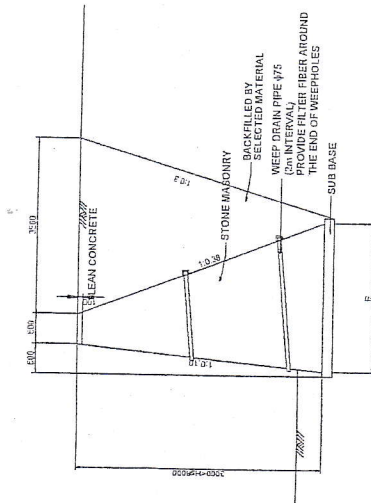


TYPE-A (GW-A)  
FRONT GRADES 1:0.00  
FOR EMBANKMENT SLOPE



H (m)	B (m)
1.0	1.0
2.0	2.0
3.0	3.0

TYPE-B (GW-B)  
FRONT GRADES 1:0.10  
FOR EMBANKMENT SLOPE



H (m)	B (m)
1.0	1.0
2.0	2.0
3.0	3.0

REMARKS:  
1: ALL DIMENSION IN MM.

National Highways & Infrastructure  
Development Corporation Limited

JAPAN INTERNATIONAL  
COOPERATION AGENCY

WIDENING AND UPGRADATION TO 2 LANE WITH PAVED  
SHOULDER CONFIGURATION AND GEOMETRIC  
IMPROVEMENTS IN THE STATE OF MIZORAM

Drawing Title :-  
NH-54 P-7  
TYPICAL DETAILS OF RETAINING WALL

Drawing No:-  
NH-54-C-2

Sheet No:-  
2 OF 3

Designated

Checked

Approved

Date

Scale

1:100



